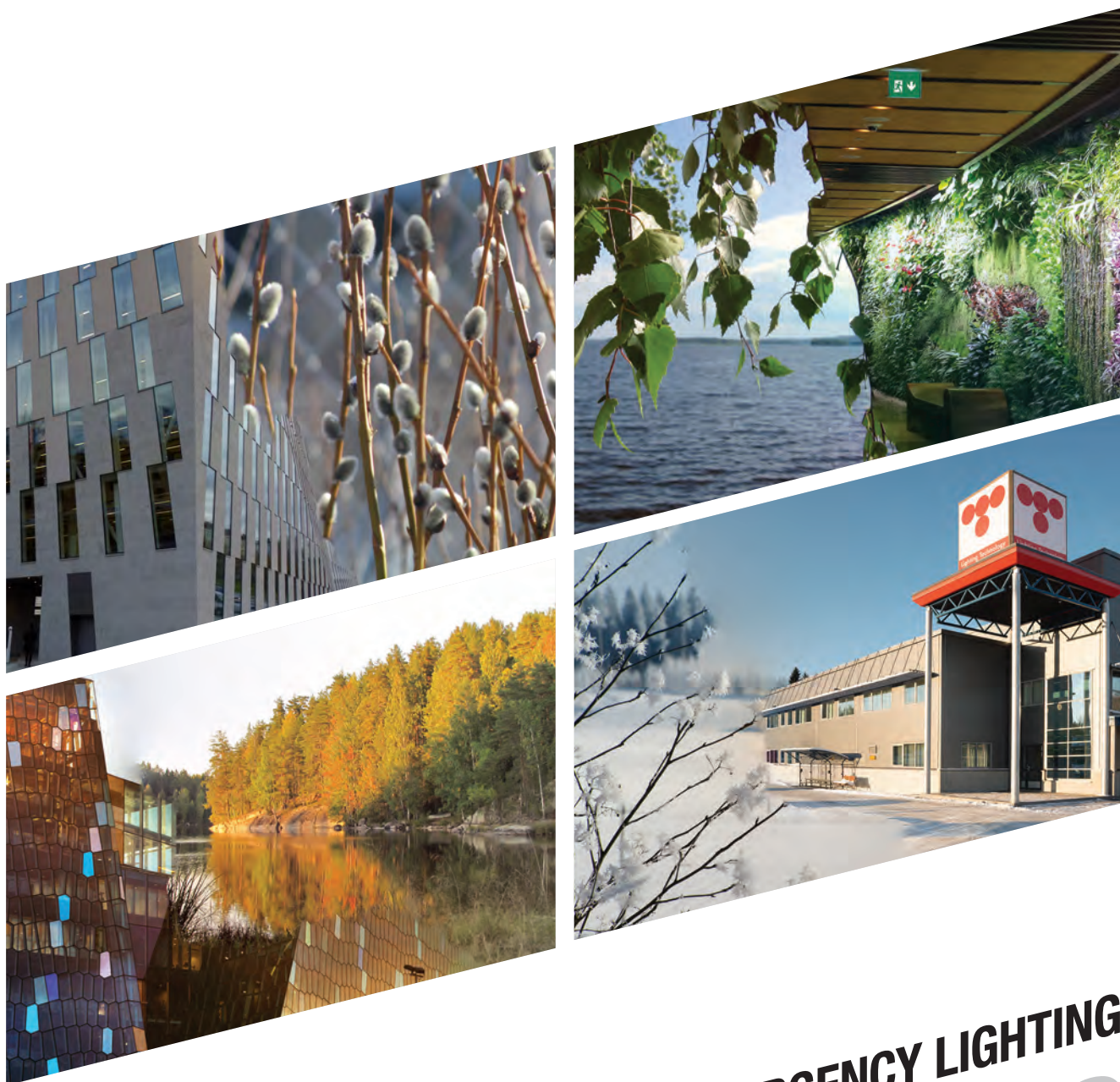




 **EMERGENCY LIGHTING**
HIGHLIGHTING
SAFETY



EMERGENCY LIGHTING HIGHLIGHTING SAFETY



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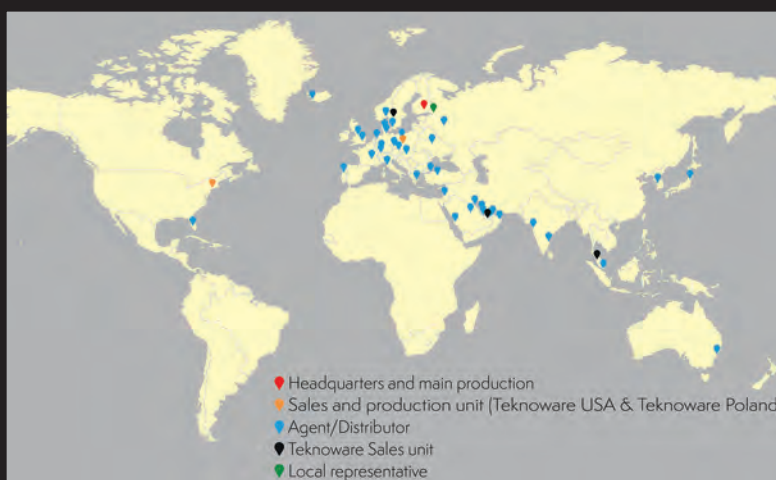
TEKNOWARE OY

Teknoware Oy is an internationally known family-run electronics company that designs and manufactures lighting systems for vehicles, as well as emergency lighting systems for buildings and ships.

Teknoware employs approximately 400 people. Teknoware has factories in Lahti, Finland as well as in Connecticut, in the United States and Siechnice, Poland. Teknoware's emergency lighting production, sales, product design and development are all based in Lahti.

Teknoware's products are sold by more than 30 cooperation companies around the world, as well as by subsidiaries in Arab Emirates, Sweden and the United States. Teknoware's delivery network covers more than 50 countries.

This year Teknoware celebrates its 45th anniversary.



Teknoware worldwide.

TEKNOWARE IN YEAR 2016

The factory expansion in Lahti was completed in June 2016. The expansion increased both production and office space by 4 500 m². The new factory is filled with environmentally friendly technology.



In Lahti, LED luminaires and lighting electronics are manufactured using modern technology, machinery and equipment. The products are delivered all over the world to vehicle and emergency lighting customers.

Read more <http://www.teknoware.com/en/news/teknowares-new-factory-expansion-filled-environmentally-friendly-technology-0>

Teknoware established a new production site in Poland

Teknoware expanded its operations by opening a new factory in Poland for the vehicle lighting products, in order to improve its global supply footprint. The new factory, Teknoware Poland Sp. z o.o., is located in Siechnice, next to Wrocław. The operations for production, sales and project execution started in October 2016.

Teknoware Poland will strongly contribute to the capacity expansion of Teknoware and therefore strengthen our competitiveness. We can serve our vehicle lighting customers with flexible timetables and with lower transportation costs.

High-Quality References

Teknoware delivered yet again LED exit lights to a new luxury cruise ship, the biggest in the world. M/S Harmony of the Seas completed at the STX France shipyard, going to sea in May 2016.



Teknoware's emergency lighting is also in use in the new Clarion Hotel, located adjacent to Helsinki Vantaa Airport.



TEKNOWARE AT YOUR SERVICE



The recent factory expansion increased production and office space in Lahti by 4 500 m².

TEKNOWARE 45 YEARS

Teknoware will be a full 45 years of age on the 19/05/2017. Teknoware personnel celebrated the birthday in advance at the FIS Nordic World Ski Championships in Lahti, at the end of February 2017.



NEW PRODUCTS IN 2017

During the celebration year we will introduce several new emergency lighting products. In this catalogue you can find for example the new SOLID exit and emergency lights.

SOLID is a new exit and emergency light product family, with IP65 protection rating, developed especially for demanding conditions. The luminaire is completely dust proof and water proof, so it can be used for example in industrial premises, parking halls and other damp or dusty conditions, as well as outdoors.



BUILDING INFORMATION MODEL (BIM)

Building Information Model contains the information of the building and the construction process, throughout their complete life cycle, in a digital format.

Teknoware publishes 3D models for BIM of its emergency lighting products in 2017. The 3D images of the individual products can be found on our website www.teknoware.com



TEKNOWARE AT YOUR SERVICE



Automated testing LED line takes care of the quality.

All Teknoware's emergency lighting products are designed and manufactured at the Lahti factory in Finland, concerning both the electronics and mechanical parts.

Product development makes use of the latest design methods in industry. Product design is verified with prototypes and product samples.

Teknoware's production is highly automated and includes all key production stages.



Our production is highly automated. Robots are responsible for example the processing of sheet metal.

The advanced production management system and the continuous monitoring of production and capacity planning, in conjunction with the automated production, enables precise and flexible deliveries.

Metal workshop has automated metalworking equipment, such as robotic bending of sheet metal parts. In the electronic production line, components are loaded into circuit boards. An automated testing LED line takes care of the quality of the LED circuit boards.

In final assembly, electronics and mechanics are combined together to make the final product.



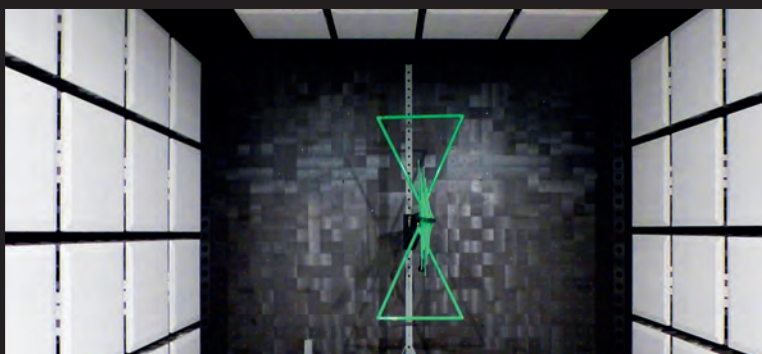
Also the electronics production takes place at our factory in Lahti, Finland.

All products go through computer controlled tests at various stages of the production.

A part of the products go through a burn-in process prior to their delivery to the customers.

TEKNOWARE AT YOUR SERVICE

The only reliable way to take care of the conformity of the emergency lighting products is for the measurements to be according to the appropriate standard and using calibrated measuring equipment.

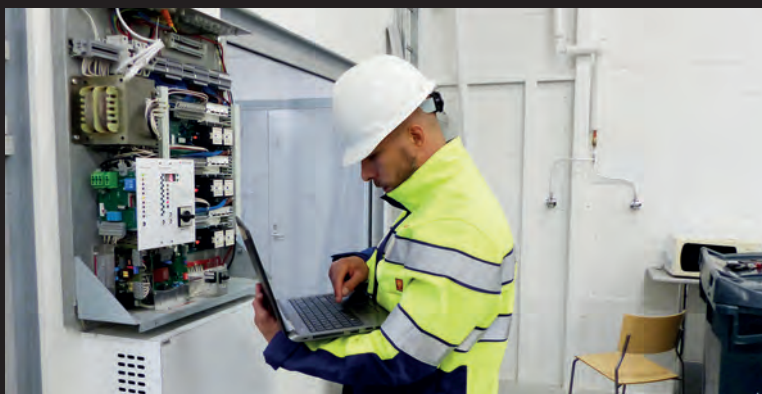


We use professional testing equipment and facilities, such as an EMC test room.

Teknoware's Emergency Lighting After Sales department provides technical support in problem situations.

After Sales also handles the sales of spare parts, and offers maintenance and commissioning services for Teknoware's emergency lighting systems.

After Sales contact information and more details about After Sales services can be found at www.teknoware.com/en/emergency-lighting/emergency-lighting-after-sales



In addition to technical support, our After Sales department offers, among other things, maintenance and commissioning services.



Teknoware supports the electrical planners in the planning of the emergency lighting system right from the beginning.



The products leave our factory and are delivered reliably on time, with first-class quality.

THE WIDEST SELECTION OF EMERGENCY LIGHTING SYSTEMS IN THE NORDIC COUNTRIES

From Teknoware you get a versatile and high quality range of emergency lighting products, which you can rely on.

CENTRAL BATTERY SYSTEMS CONTROL EMERGENCY LIGHTING FROM A SINGLE LOCATION

Central battery systems' advantage is that the batteries and the main operating devices are all in one place. The benefits are substantial, particularly in large buildings where the system may have hundreds or even thousands of emergency and exit lights. A central battery system allows management from a single location. Centralization facilitates servicing and the maintenance of equipment.

Check what we have to offer from pages 11-27.

SELF-CONTAINED LUMINAIRE SYSTEMS - TRADITIONAL AND FLEXIBLE SOLUTION

In self-contained systems the emergency power source is traditionally a battery. It is recommended for buildings where luminaire batteries can be replaced cost effectively.

ESCAP

ESCAP SELF-CONTAINED LUMINAIRES - MAINTENANCE-FREE AND ENVIRONMENTALLY FRIENDLY ALTERNATIVE

ESCAP emergency and exit lights show Teknoware's emergency lighting know-how.

They combine the flexibility of the self-contained luminaires with the freedom

of maintenance and environmental friendliness, enabled by new technology. The battery of the luminaires is replaced with a maintenance-free super capacitor, whose life span exceeds more than 10 years. ESCAP self-contained luminaires do not contain harmful substances and can be recycled as normal electronic waste.

Read more from page 48.



ESCAP luminaire of ESC 90 product family.

REMOTE MANAGEMENT SYSTEM MAKES MANAGEMENT EASIER

Remote management makes emergency lighting systems easier to manage. It provides the user with real time information from the system. In addition, an electronic diary keeps track of the tests performed. Some of the remote management systems can be used over the Internet, regardless of location.

Centralized remote management is available in both the central battery system as well as in self-contained systems. The remote management system can be integrated with the building management system.

Read more from pages 41-44.



STANDARDS GUARENTEE QUALITY

Emergency lighting quality and requirements are defined by different standards. The central unit used for controlling the luminaires must be in accordance with the SFS-EN 50171 standard.

The device must to be designed specifically for emergency lighting use. Typically, for example UPS devices or central units used for controlling other systems do not comply with standard SFS-EN 50171.

All Teknoware's equipment and systems are specifically designed for emergency lighting use.



Teknoware's TKT66 central battery system IP34, with a door, fulfilling EN 50171 standard requirements.

HIGHLIGHTING SAFETY

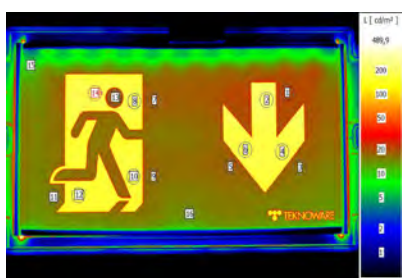
Emergency lighting is a building's safety system, that helps people to leave the building quickly and safely in CASE of an emergency.

Quality and reliability are important to us, because our products can in extreme cases save lives. Our emergency lighting systems always meet the requirements of the relevant standards. They can be trusted.

EXIT LIGHTS MUST BE VISIBLE

It is important that exit lights are clearly visible. This cannot be compromised. Exit lights and their pictograms must stand out from the rest of the environment, both during a power failure as well as in normal lighting conditions.

The exit lights sold in Europe must comply with the requirements of the European EN 1838 standard, which relates to the technical characteristics of the luminaire, luminance and contrast.

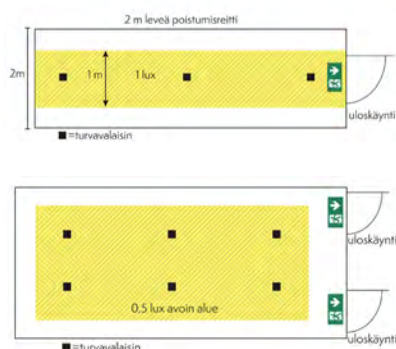


Contrast measurement carried out in accordance with the standard EN 1838.

INTENSITY OF THE LUMINAIRE DETERMINES THE POSITION OF THE EMERGENCY LIGHT

In order that the emergency lights are positioned correctly in the building, photometric data is required for each type of luminaire.

Function of the emergency lights is to provide escape routes with at least 1.0 lux and open areas with at least 0.5 lux illumination levels.



Emergency light standard EN 60598-2-22, requires that the emergency lighting manufacturer shall provide the luminaire's verified photometric values. The luminaire manufacturer must make measurements and simulations to ensure illuminance levels.

HOW DO YOU RECOGNISE A SAFE AND HIGH-QUALITY PRODUCT?

Electrical device conformity means that the electrical equipment is in compliance with the applicable standards.

The most reliable measure of quality is that the measuring is in accordance with the appropriate standard and made with calibrated measuring equipment. This is as true for electromagnetic compatibility, electrical safety as well as for the performance of the product.

WHO IS RESPONSIBLE FOR A BUILDING'S EMERGENCY LIGHTING SYSTEM?

The owner and the tenant of the building are responsible for ensuring that the building is functional and has an appropriate emergency lighting system. Broken or fading exit lights and any other system failures must always be declared to the representative responsible for the maintenance of the building.

MORE POWER - LESS INVESTMENT

We want to offer only the best performance and the latest technology. The performance of our luminaires is now even better with new optics and new leds.

Less emergency lights than in the past are required, because the luminaires have longer installation distances and higher installation heights.

Check the performance information of the luminaires from the product related data pages.



The luminous flux of the luminaires is measured in Teknoware's laboratory using an Ulbricht sphere.

Download Eulumad files on our website at <http://www.teknoware.com/en/emergency-lighting/emergency-lighting-downloads>

Data of the luminaires is from actual measurements and simulations based on them.



CASE OP-Vallila, Helsinki, Finland

In the Vallila district block there is a complex of buildings of 132 000 m² of OP Bank, opened in 2015. Vallila district block's architecture draws from its Finnish identity and the set of values of sustainable development.

In OP Vallila there is Teknoware's addressable central battery system. The central battery systems are from the product families TKT67C (p. 16) and TKT65C (p. 22).

The range of emergency lights consists of Teknoware's Slimspots (p. 228), which are specially painted for this building and Linespot II Lowbay (p. 164).

Exit lights that have been used are ESC 80 (p. 70), ESC 90 (p. 64), ESC 81 (p. 78), ESC 10 (p. 86) and ESC 6 & ESC 6L (p. 116).

CENTRAL BATTERY SYSTEMS

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FEATURES OF CENTRAL BATTERY SYSTEMS



Central Battery System		TKT3122	TKT41xx	TKT65xxBx	
Basic information					
	Nominal Supply voltage	1~ N/PE 230 VAC	1~ N/PE 230 VAC	1~ N/PE 230 VAC	
	Output voltage, mains supply	24 VAC	24 VAC	230 VAC	
	Output voltage, battery supply	24 VDC	24 VDC	216 VDC	
	Battery voltage	24 VDC	24 VDC	216 VDC	
	Max. battery capacity	24 Ah	100 Ah	65 Ah	
	Max total load, mains operation	250 VA	1050 VA	6000 VA	
	Max total load, 1 h battery operation	290 W	1370 W	6000 W	
	Max total load, 3 h battery operation	135 W	565 W	3340 W	
	Amount of output circuits	4	8-16	6-24	
	Max. output power / circuit	120 VA / 190 W	120 VA / 190 W	250 VA / W	
	Connection of circuits in parallel	—	—	—	
Features					
	Self-Testing of Central Battery System	—	—	—	
	Addressable testing of luminaires	—	—	—	
	Circuit Monitoring	—	—	—	
Interior optional features for Central Battery System					
	Integrated printer	—	—	—	
	LCD Display	—	—	—	
	LON Interface	—	—	—	
	BACnet Interface	—	—	—	
	ACM Interface (RS-485)	—	—	—	
	WebCM / WebACM Interface (Ethernet)	—	—	—	
Compatibility of external system modules					
	Local Controller	—	—	x	
	Switch Controller	—	—	x	
	Address module	—	—	x	
	Intelligent Controller Interface	—	—	—	

*) TKx66xxCFx = three phase input

**) Circuits can be connected in parallel to increase the output power up to 700 VA / W or 1400 VA / W



	TKT65xxC	TKT65xxCP	TKT66xxCx	TKT67xxC	TKT68xxCx
	1~ N/PE 230 VAC	1~ N/PE 230 VAC	1~ N/PE 220-240 VAC	3~ N/PE 220-240/380-415 VAC	1~ N/PE 220-240 VAC
	230 VAC	230 VAC	220-240 VAC	220-240 VAC	220-240 VAC
	216 VDC	216 VDC	216 VDC	216 VDC	216 VDC
	216 VDC	216 VDC	216 VDC	216 VDC	216 VDC
	65 Ah	65 Ah	65 Ah	450 Ah	65 Ah
	2580 VA	2580 VA	6000 VA	19600 VA	6000 VA
	6000 W	6000 W	6000 W	19600 W	6000 W
	3340 W	3340 W	3340 W	19600 W	3340 W
	8-24	8-24	8-24	16-56	8-24
	250 VA / W	250 VA / W	350 VA / W 700 VA / W*) 1400 VA / W*)	350 VA / W 700 VA / W*) 1400 VA / W*)	350 VA / W 700 VA / W*) 1400 VA / W*)
	—	—	x	x	x
	x	x	x	x	x
	x	x	x	x	x
	x	x	x	x	x
	TST6531	TST6531	TST6631	TST6731	TST6831
	TST6532	TST6532	TST6632	TST6732	TST6832
	TST6522	TST6522	TST6622	TST6722	TST6822
	TST6501	TST6501	TST6601	TST6701	TST6823
	TST6521	TST6521	TST6621	TST6721	TST6821
	TST6524	TST6524	TST6624	TST6624	TST6824
	x	x	x	x	x
	x	x	x	x	x
	x	x	x	x	x
	TST6551, TST6552, TST6553	TST6551, TST6552, TST6553	TST6651, TST6652, TST6653	TST6752, TST6753, TST6754, TST6755, TST6756, TST6757	TST6851, TST6852, TST6853

ADDRESSABLE TAPSA CONTROL CENTRAL BATTERY SYSTEMS

CLEAR SAVINGS

When you want clear savings in maintenance and in the service of the emergency lighting systems, your choice is Teknoware's Tapsa Control Central Battery System with addressable monitoring.

SUITABLE FOR SMALL AND LARGE BUILDINGS

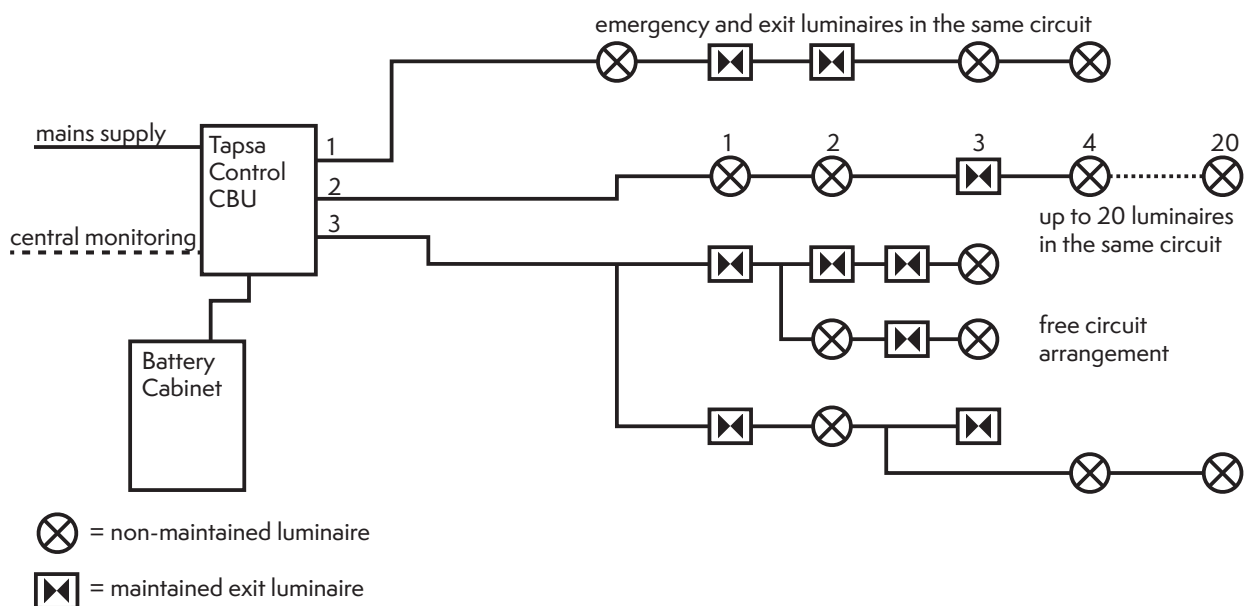
Addressable central battery systems operate from small systems of twenty luminaire, to remotely monitored entities of thousands of luminaires.

AUTOMATIC TESTING, A POSSIBILITY

Addressable testing of luminaires utilizes the same circuit cables through which the power is supplied to the luminaires.

Using addressable luminaires allows the connection of both non-maintained and maintained emergency and exit lights in the same circuit. Also local control is possible when using Teknoware's Local Controller or Intelligent Controller.

- a self learning system, automatic configuration is possible during the commissioning
- monitoring of individual luminaires and luminaire circuits, as well as of the condition of batteries
- automatic luminaire test, carried out once a week
- automatic battery duration test once every 6 months
- compatible with Teknoware's Local Controller, Switch Controller and Intelligent Controller
- A 1 - 15 min delay can be set, to extend the battery operation after the mains supply has returned
- accordingly to the standard EN 50171.



COMPONENTS AND ORDERING



Addressable Central Battery System, e.g. TKT6716C + central monitoring, e.g. WebACM



Battery cabinet(s) and battery cables for batteries according to load of luminaires



Addressable exit and emergency lights (letter K at the end of the product code), e.g. TWT8051WK or TWT1451WK

TRADITIONAL CENTRAL BATTERY SYSTEMS

The so called traditional 230 V and 24 V central battery systems, i.e. those without addressable monitoring of the luminaires, are well suited for small and medium sized buildings, where it is possible to carry out control and maintenance procedures of central battery systems and luminaires manually.

All functions relating to the central battery unit can be made from its operation panel. The light source and the operating time test can be made from the front panel switches of the central battery system. Indication lights, which monitor the battery status and

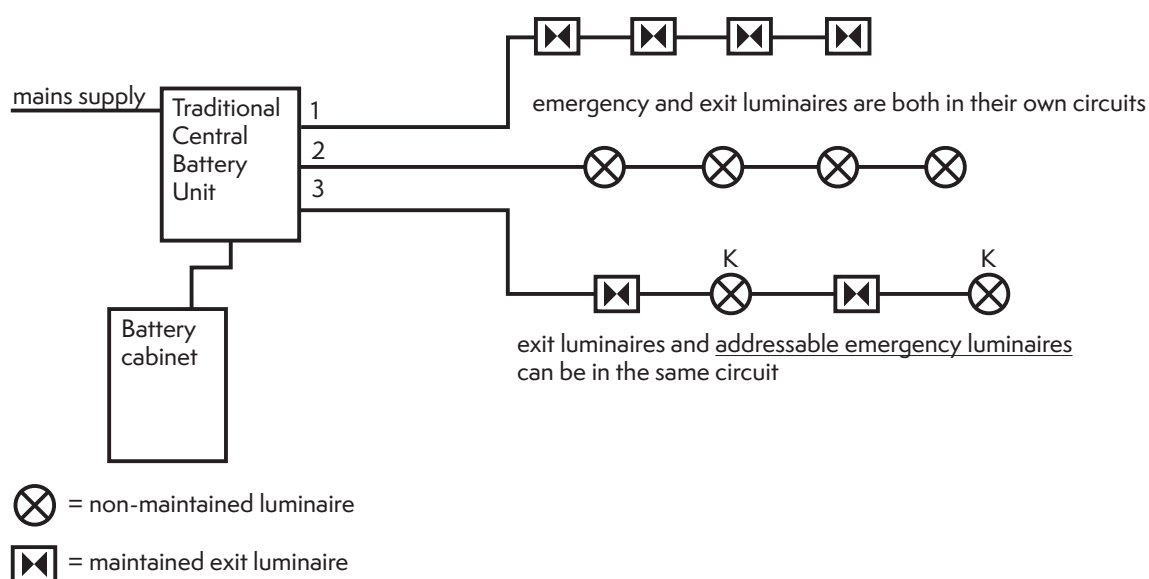
indicate faults, can also be found on the panel.

The purpose of the central battery system, in normal conditions, is to monitor the mains voltage and to recharge the batteries, as well as to supply the maintained luminaire circuits. During a power failure, the central battery system feeds all circuits with the energy charged in the batteries.

Emergency and exit lights used together with central battery systems should be suitable for use with both AC and DC voltage supply.

Teknoware's traditional 230 V and 24 V central battery systems offer a low cost of acquisition for a centralized power supply, for the emergency lighting system of a building.

All the central battery systems conform to the standard EN 50171.



COMPONENTS AND ORDERING



Traditional Central Battery System, e.g. TKT6506B



Battery cabinet(s) and battery cables for batteries according to load of luminaires



Exit and emergency lights e.g. TWT8051W and TWT9971W

TAPSA CONTROL TKT67XXC

3-N/PE 220-240/ 380-415 VAC 50/60 HZ	IP 31	EN 50171	RAL 9003
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230 V
ADDRESSABLE
CENTRAL
BATTERY
SYSTEM

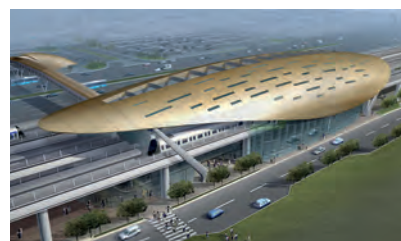
Central battery systems in TKT67 series give an efficient solution for a large number of luminaires. They are particularly suitable for large buildings.

TKT67C is quick to assemble as the terminals are conveniently located on the upper side of the unit and the fuses of the output circuits are at the terminals.

Technical data

- input voltage 220-240 VAC
- output voltage in normal mode 220-240 VAC
- output voltage in battery mode 216 VDC
- battery voltage of 216 V is generated by 18 pieces of 12 V batteries connected in series
- 16, 24, 32, 40, 48 or 56 output circuits
- 8 x 350 VA, 4 x 700 VA or 2 x 1400 VA parallel connections are possible
- max 32 luminaires per circuit (please note local restrictions)

Read more about addressable Tapsa Control central battery systems from page 14.

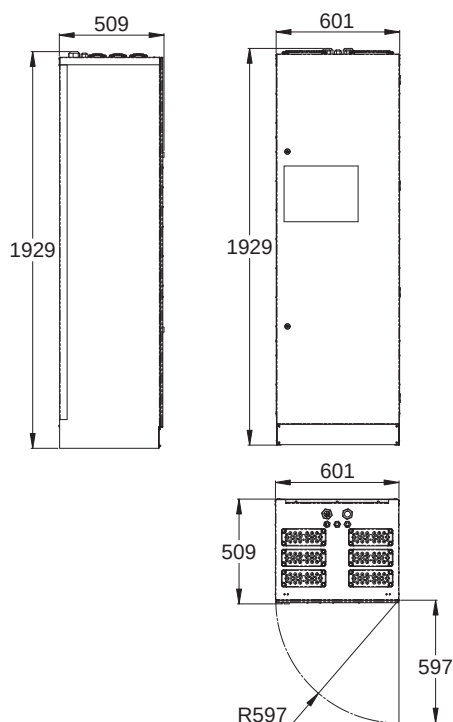


Dubai metro, U.A.E.

Dubai Metro is the first underground in the Arabian Peninsula. Metro was opened to traffic in 2009. Teknoware has delivered the central battery systems and exit lights to the whole of the metro system.

Take a look at our other references at <http://www.teknoware.com/en/emergency-lighting/emergency-lighting-references>

DIMENSIONS



ADDRESSABLE 230 V CENTRAL BATTERY SYSTEMS

Product code	Max input power (mains)	Number of circuits / Outputs	Max total load, mains operation	Max total load, 1 h battery operation	Max total load, 3 h battery operation	Weight (kg)
TKT6716C	8450 VA	16 circuits each 350 W 2 x (8x350 W / 4x700 W / 2x1400 W)	5600 VA	5600 W	5600 W	120,0
TKT6724C	14000 VA	24 circuits each 350 W 3 x (8x350 W / 4x700 W / 2x1400 W)	8400 VA	8400 W	8400 W	121,0
TKT6732C	16800 VA	32 circuits each 350 W 4 x (8x350 W / 4x700 W / 2x1400 W)	11200 VA	11200 W	11200 W	122,0
TKT6740C	19600 VA	40 circuits each 350 W 5 x (8x350 W / 4x700 W / 2x1400 W)	14000 VA	14000 W	14000 W	123,0
TKT6748C	25150 VA	48 circuits each 350 W 6 x (8x350 W / 4x700 W / 2x1400 W)	16800 VA	16800 W	16800 W	124,0
TKT6756C	27950 VA	56 circuits each 350 W 7 x (8x350 W / 4x700 W / 2x1400 W)	19600 VA	19600 W	19600 W	125,0

Output voltage: 230 V AC/DC | **Batteries :** 18 x 12 V (216 V) | **Max battery capacity:** 450 Ah

Nominal supply voltage: 3~ N/PE 220-240/380-415 VAC, 50/60 Hz | **Required short circuit current,** when using 2,5 A fuse, applying 0,4 s tripping time: 10 A

Max load inrush current: 350 W circuit (1 circuit): 120 A/1 ms, 700 W circuit (2 circuits parallel): 250 A/1 ms, 1400 W circuit (4 circuits parallel): 300 A/1 ms

BATTERIES (18 x TEAxx / xxAh)

Product code	Battery capacity	Max total load, 1 h operation time	Max total load, 3 h operation time	Battery cabinet	Battery cable	Dimensions of the battery	Weight of the battery (kg)
TEA024	65 Ah	7500 W	3340 W	TKT6500(P) x 3	XJ997E	350 x 166 x 174	22,8
TEA024B	100 Ah	11780 W	5050 W	TKT6500(P) x 3	XJ997E	327 x 168 x 210	33,5
TEA024D	150 Ah	17670 W	7580 W	N/A		485 x 172 x 240	47,0
TEA024C	200 Ah	19600 W	10010 W	N/A			
	300 Ah (2 x 150 Ah)		15160 W	N/A			
	400 Ah (2 x 200 Ah)		19600 W	N/A			

A 10 % reserve is recommended for the loads (W) mentioned in the table.

BATTERY CABINETS

Product code	Battery capacity	Protection rating	Weight (kg)
TKT6500	6 x 12 V / 100 Ah	IP20	28,0
TKT6500P	6 x 12 V / 100 Ah	IP34	35,0

BATTERY CABLES

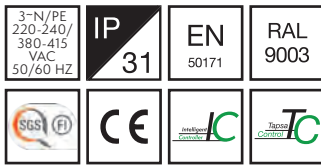
Product code	Length of the battery cable (m)	For
XJ997E	3,5	For three TKT6500 battery cabinets

Please note a peeling reserve in the length of the battery cable

OPTIONAL FEATURES

Product code	Product description	For
TST6731	Integrated Printer	TKT67xxC
TST6732	LCD Display Module	TKT67xxC
TST6752	IC Interface for 16 circuits each 350 W	TKT6716C
TST6753	IC Interface for 24 circuits each 350 W	TKT6724C
TST6754	IC Interface for 32 circuits each 350 W	TKT6732C
TST6755	IC Interface for 40 circuits each 350 W	TKT6740C
TST6756	IC Interface for 48 circuits each 350 W	TKT6748C
TST6757	IC Interface for 56 circuits each 350 W	TKT6756C
Central monitoring options:		
TST6722	LON Interface	TKT67xxC
TST6701	BACnet Interface	TKT67xxC
TST6721	ACM Interface	TKT67xxC
TST6724	WebCM/ WebACM Interface	TKT67xxC

TAPSA CONTROL TKT68XXC



Central battery system in TKT68 series offers a space saving and efficient emergency lighting solution. Central battery systems include space for batteries, so it is suitable to be placed in locations where space is limited.

We recommend TKT68 series especially for medium sized and large buildings. TKT68XXC also allows the decentralization of central battery systems to several independent areas. TKT68 is quick to assemble as the terminals are conveniently located on the upper side of the unit and the fuses of the output circuits are at the terminals.

Technical data

- input voltage 220-240 VAC
- output voltage in normal mode 220-240 VAC
- output voltage in battery mode 216 VDC
- battery voltage of 216 V is generated by 18 pieces of 12 V batteries connected in series
- includes space for 65 Ah battery
- 8, 16 or 24 output circuits
- 8 x 350 VA, 4 x 700 VA or 2 x 1400 VA parallel connections are possible
- max 32 luminaires per circuit (please note local restrictions)

230 V
ADDRESSABLE
CENTRAL
BATTERY
SYSTEM



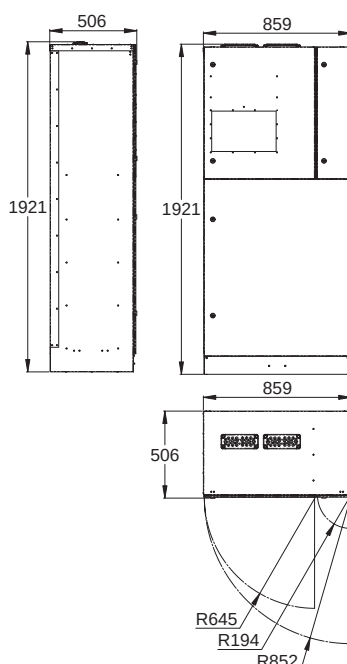
University of Lausanne, Switzerland

University of Lausanne is a public university for mainly French speaking in Lausanne, Switzerland. From the year 1890 it has been functioning as a college. There are currently about 10,200 students studying there. The University's emergency lighting system uses Teknoware's TKT68 central battery system.

Take a look at our other references at <http://www.teknoware.com/en/emergency-lighting/emergency-lighting-references>

Read more about addressable Tapco Control central battery systems from page 14.

DIMENSIONS



ADDRESSABLE 230 V CENTRAL BATTERY SYSTEMS

Product code	Max input power (mains)	Number of circuits/ Outputs	Max total load, mains operation	Max total load, 1 h battery operation	Max total load, 3 h battery operation	Weight (kg)
TKT6808C	3680 VA	8 circuits each 350 W 1 x (8x350 W / 4x700 W / 2x1400 W)	2580 VA	2800 W	2800 W	145,0
TKT6808CF	3900 VA	8 circuits each 350 W 1 x (8x350 W / 4x700 W / 2x1400 W)	2800 VA	2800 W	2800 W	145,0
TKT6816C	3680 VA	16 circuits each 350 W 2 x (8x350 W / 4x700 W / 2x1400 W)	2580 VA	5600 W	3340 W	147,0
TKT6816CF	6700 VA	16 circuits each 350 W 2 x (8x350 W / 4x700 W / 2x1400 W)	5600 VA	5600 W	3340 W	147,0
TKT6824C	3680 VA	24 circuits each 350 W 3 x (8x350 W / 4x700 W / 2x1400 W)	2580 VA	6000 W	3340 W	150,0
TKT6824CF	7100 VA	24 circuits each 350 W 3 x (8x350 W / 4x700 W / 2x1400 W)	6000 VA	6000 W	3340 W	150,0

Output voltage: 230 V AC/DC | **Batteries :** 18 x 12 V (216 V) | **Max battery capacity:** 65 Ah | **F-letter at the end of the product code:** three phase input
Nominal supply voltage: 1~ N/PE 220-240 VAC, 50/60 Hz, three phase input CBS's: 3~ N/PE 220-240/380-415 VAC, 50/60 Hz
Required short circuit current, when using 2,5 A fuse, applying 0,4 s tripping time: 10 A
Max load inrush current: 350 W circuit (1 circuit): 120 A/1 ms, 700 W circuit (2 circuits parallel): 250 A/1 ms, 1400 W circuit (4 circuits parallel): 300 A/1 ms
Cable XJ997F (for ≥15 Ah batteries) **included**

BATTERIES (18 x TEAxx / xxAh)

Product code	Size of the battery (Ah)	Max total load, 1 h operation time	Max total load, 3 h operation time	Battery cabinet	Battery cable	Dimensions of the battery (mm)	Weight of the battery (kg)
TEA020	6,5 Ah	870 W	350 W	No separate battery cabinet needed	XJ997G	151 x 65 x 98	2,4
TEA021	15 Ah	1700 W	770 W	No separate battery cabinet needed	-	181 x 76 x 167	5,9
TEA022	24 Ah	2720 W	1250 W	No separate battery cabinet needed	-	166 x 175 x 125	8,7
TEA023	38 Ah	4550 W	2050 W	No separate battery cabinet needed	-	197 x 165 x 173	13,8
TEA024	65 Ah	6000 W	3340 W	No separate battery cabinet needed	-	350 x 166 x 174	22,8

| **A 10 % reserve is recommended for the loads (W) mentioned in the table.** | **Smallest acceptable size of the battery is 6,5 Ah**

BATTERY CABLES

Product code	For
XJ997G	6,5 Ah batteries

| **Cable XJ997F** (for ≥15 Ah batteries) **included**

OPTIONAL FEATURES

Product code	Product description	For
TST6831	Integrated Printer	TKT68xxC(F)
TST6832	LCD Display Module	TKT68xxC(F)
TST6851	IC Interface for 8 circuits each 350 W	TKT6808C(F)
TST6852	IC Interface for 16 circuits each 350 W	TKT6816C(F)
TST6853	IC Interface for 24 circuits each 350 W	TKT6824C(F)
Central monitoring options:		
TST6822	LON Interface	TKT68xxC(F)
TST6823	BACnet Interface	TKT68xxC(F)
TST6821	ACM Interface	TKT68xxC(F)
TST6824	WebCM/ WebACM Interface	TKT68xxC(F)

TAPSA CONTROL TKT66XXCX



230 V
ADDRESSABLE
CENTRAL
BATTERY
SYSTEM

We recommend TKT66 series in particular for medium sized and large buildings. TKT66 is also a good choice with a central battery system in several independent areas.

TKT66 series central battery system offers an effective solution to supply medium to high number of luminaires.

TKT66 series has the advantage of easy and quick installation, as the connectors are conveniently located on the top edge and the output fuses on the connectors.

Technical data

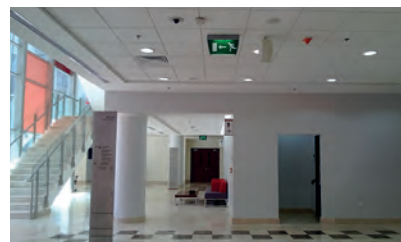
- input voltage 220-240 VAC
- output voltage in normal mode 220-240 VAC
- output voltage in battery mode 216 VDC
- battery voltage of 216 V is generated by 18 pieces of 12 V batteries connected in series
- 8, 16 or 24 output circuits
- 8 x 350 VA, 4 x 700 VA or 2 x 1400 VA parallel connections are possible
- max 32 luminaires per circuit (please note local restrictions)



TKT66XXC



TKT66XXCP*)



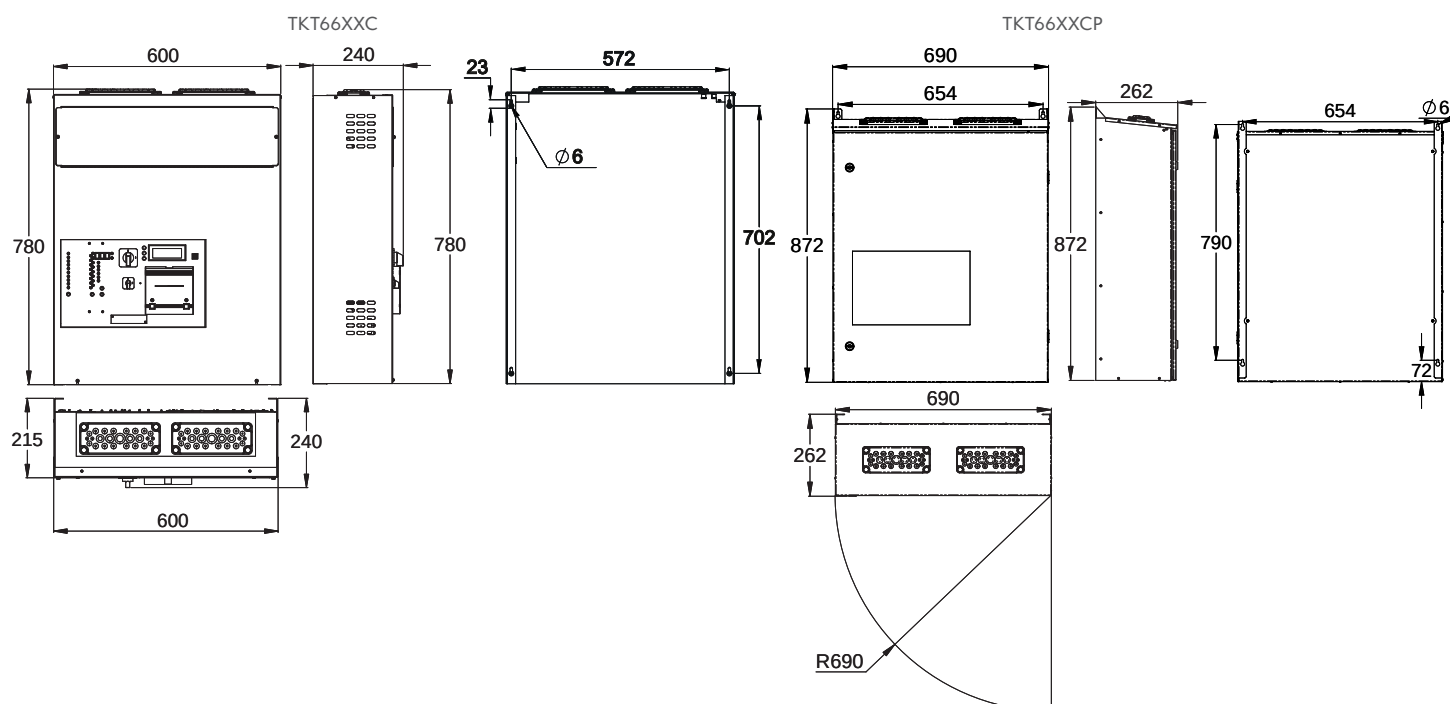
King Saud University, Saudi Arabia

King Saud University in Saudi Arabia uses Teknoware's addressable central battery system. In addition, it is equipped with Advanced Central Monitoring (ACM) remote monitoring system. ACM enables up to a kilometer distance between the central battery system and the monitoring computer.

Take a look at our other references at <http://www.teknoware.com/en/emergency-lighting/emergency-lighting-references>

Read more about addressable Tapsa Control central battery systems from page 14.

DIMENSIONS



ADDRESSABLE 230 V CENTRAL BATTERY SYSTEMS

Product code	Max input power (mains)	Number of circuits/ Outputs	Max total load, mains operation	Max total load, 1 h battery operation	Max total load, 3 h battery operation	Weight (kg)
TKT6608C(P)	3680 VA	8 circuits each 350 W 1 x (8x350 W / 4x700 W / 2 x1400 W)	2580 VA	2800 W	2800 W	32,8
TKT6608CF(P)	3900 VA	8 circuits each 350 W 1 x (8x350 W / 4x700 W / 2 x1400 W)	2800 VA	2800 W	2800 W	32,8
TKT6616C(P)	3680 VA	16 circuits each 350 W 2 x (8x350 W / 4x700 W / 2 x1400 W)	2580 VA	5600 W	3340 W	33,8
TKT6616CF(P)	6700 VA	16 circuits each 350 W 2 x (8x350 W / 4x700 W / 2 x1400 W)	5600 VA	5600 W	3340 W	33,8
TKT6624C(P)	3680 VA	24 circuits each 350 W 3 x (8x350 W / 4x700 W / 2 x1400 W)	2580 VA	6000 W	3340 W	34,8
TKT6624CF(P)	7100 VA	24 circuits each 350 W 3 x (8x350 W / 4x700 W / 2 x1400 W)	6000 VA	6000 W	3340 W	34,8

Output voltage: 230 V AC/DC | **Batteries:** 18 x 12 V (216V) | **Max battery capacity:** 65 Ah | **F-letter at the end of the product code:** three phase input
Nominal supply voltage: TKT6608C-TKT6624C: 1~ N/PE 220-240 VAC, 50/60 Hz,
three phase input CBS's: TKT6608CF-TKT6624CF: 3~ N/PE 220-240/380-415 VAC, 50/60 Hz
Required short circuit current, when using 2,5 A fuse, applying 0,4 s tripping time: 10 A
Max load inrush current: 350 W circuit (1 circuit): 120 A/ 1 ms, 700 W circuit (2 circuits parallel): 250 A/ 1 ms, 1400 W circuit (4 circuits parallel): 300 A/ 1 ms
P-letter at the end of the product code: CBS with hinged front door, IP34

BATTERIES (18 x TEAxx / xxAh)

Product code	Size of the battery (Ah)	Max total load, 1 h operation time	Max total load, 3 h operation time	Battery cabinet	Battery cable	Dimensions of the battery (mm)	Weight of the battery (kg)
TEA020	6,5 Ah	870 W	350 W	TK6500B(P)	XJ997B	151 x 65 x 98	2,4
TEA021	15 Ah	1700 W	770 W	TK6500B(P)	XJ997	181 x 76 x 167	5,9
TEA022	24 Ah	2720 W	1250 W	TK6500B(P) x 2	XJ997C	166 x 175 x 125	8,7
TEA023	38 Ah	4550 W	2050 W	TK6500B(P) x 2	XJ997C	197 x 165 x 173	13,8
TEA024	65 Ah	6000 W	3340 W	TKT6500(P) x 3	XJ997E	350 x 166 x 174	22,8

| A 10 % reserve is recommended for the loads (W) mentioned in the table. | Smallest acceptable size of the battery is 6,5 Ah

BATTERY CABINETS

Product code	Battery capacity	Protection rating	Weight (kg)
TK6500B	18 x 12 V/15 Ah	IP20	14,0
TK6500BP	18 x 12 V / 15 Ah	IP34	19,0
TKT6500	6 x 12 V / 100 Ah	IP20	28,0
TKT6500P	6 x 12 V / 100 Ah	IP34	35,0

BATTERY CABLES

Product code	Length of the battery cable (m)	For
XJ997B	1,5	6,5 Ah batteries
XJ997	1,5	≥15 Ah batteries
XJ997C	2,5	For two battery cabinets
XJ997E	3,5	For three TKT6500(P) battery cabinets

| Please note a peeling reserve in the length of the battery cable

OPTIONAL FEATURES

Product code	Product description	For
TST6631	Integrated Printer	TKT66xxC(F)
TST6632	LCD Display Module	TKT66xxC(F)
TST6651	IC Interface for 8 circuits each 350 W	TKT6608C(F)
TST6652	IC Interface for 16 circuits each 350 W	TKT6616C(F)
TST6653	IC Interface for 24 circuits each 350 W	TKT6624C(F)
Central monitoring options:		
TST6622	LON Interface	TKT66xxC(F)
TST6601	BACnet Interface	TKT66xxC(F)
TST6621	ACM Interface	TKT66xxC(F)
TST6624	WebCM/ WebACM Interface	TKT66xxC(F)

TAPSA CONTROL TKT65XXCX



230 V
ADDRESSABLE
CENTRAL
BATTERY
SYSTEM

Central battery system in TKT65xxCX series, as all our Tapsa Control central battery systems, takes care of the testing automatically.

Suitable for medium sized and large buildings.

Technical data

- input voltage 230 VAC
- output voltage under normal conditions 230 VAC
- output voltage in battery mode 216 VDC
- battery voltage of 216 V is generated by 18 pieces of 12 V batteries connected in series
- 8, 16 or 24 output circuits
- max 16 luminaires per circuit

Read more about addressable Tapsa Control central battery systems from page 14.



TKT65XXC



TKT65XXCP*

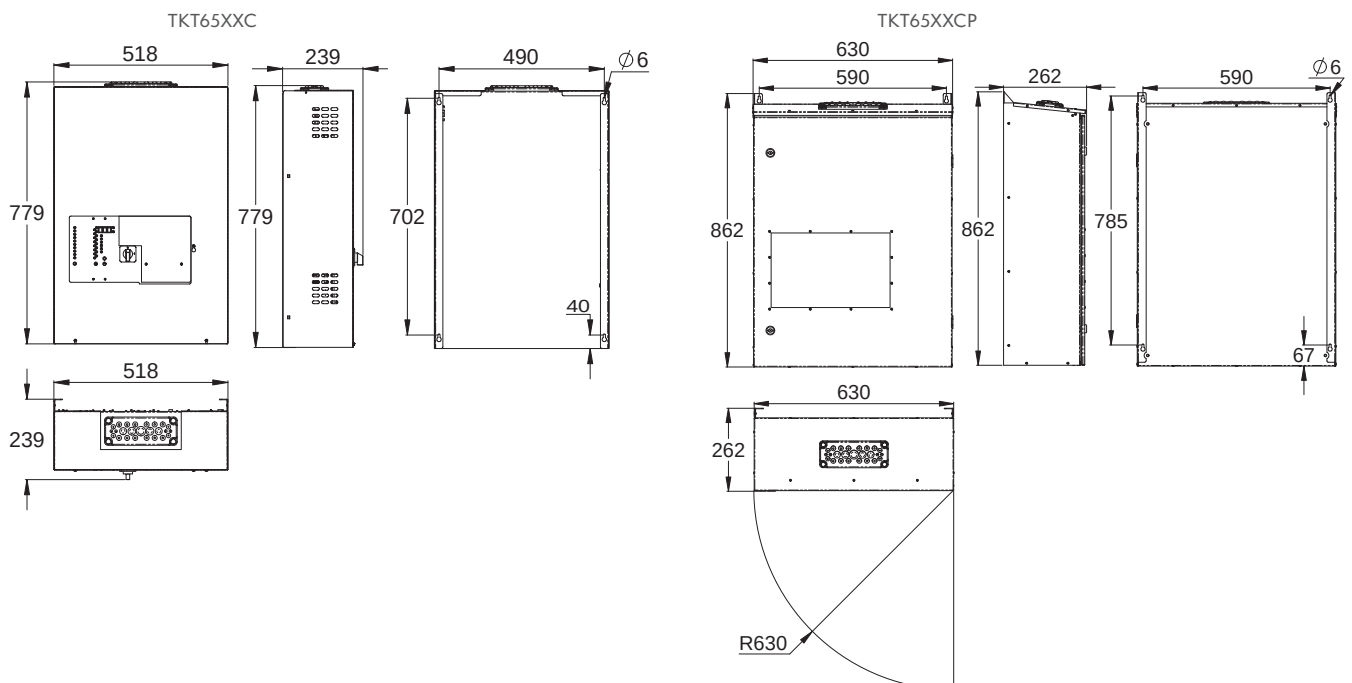


Sofitel Dubai The Palm Resort & Spa, Dubai, United Arab Emirates

The safe evacuation of people in the CASE of emergency is ensured at the Dubai luxury hotel with Teknoware's addressable central battery system and Advanced Central Monitoring (ACM) remote monitoring system. ACM enables up to a kilometer distance between the central battery system and the monitoring computer.

Take a look at our other references at <http://www.teknoware.com/en/emergency-lighting/emergency-lighting-references>

DIMENSIONS



ADDRESSABLE 230 V CENTRAL BATTERY SYSTEMS

Product code	Max input power (mains)	Number of circuits/ Outputs	Max total load, mains operation	Max total load, 1 h battery operation	Max total load, 3 h battery operation	Weight (kg)
TKT6508C	3100 VA	8 circuits each 250 W	2000 VA	2000 W	2000 W	29,5
TKT6508CP	3100 VA	8 circuits each 250 W	2000 VA	2000 W	2000 W	49,5
TKT6516C	3680 VA	16 circuits each 250 W	2580 VA	4000 W	3340 W	30,0
TKT6516CP	3680 VA	16 circuits each 250 W	2580 VA	4000 W	3340 W	50,0
TKT6524C	3680 VA	24 circuits each 250 W	2580 VA	6000 W	3340 W	30,5
TKT6524CP	3680 VA	24 circuits each 250 W	2580 VA	6000 W	3340 W	50,5

Output voltage: 230 V AC/DC | **Batteries:** 18 x 12 V (216 V) | **Nominal supply voltage:** 1~ N/PE 220-240 VAC, 50 Hz

Max battery capacity: 65 Ah

Required short circuit current, when using 1,6 A fuse, applying 0,4 s tripping time: 7 A

Max load inrush current: (single circuit) 120 A/1 ms

P-letter at the end of the product code: CBS with hinged door, IP34

BATTERIES (18 x TEAxx / xxAh)

Product code	Size of the battery (Ah)	Max total load, 1 h operation time	Max total load, 3 h operation time	Battery cabinet	Battery cable	Dimensions of the battery (mm)	Weight of the battery (kg)
TEA020	6,5 Ah	870 W	350 W	TK6500B(P)	XJ997B	151 x 65 x 98	2,4
TEA021	15 Ah	1700 W	770 W	TK6500B(P)	XJ997	181 x 76 x 167	5,9
TEA022	24 Ah	2720 W	1250 W	TK6500B(P) x 2	XJ997C	166 x 175 x 125	8,7
TEA023	38 Ah	4550 W	2050 W	TK6500B(P) x 2	XJ997C	197 x 165 x 173	13,8
TEA024	65 Ah	6000 W	3340 W	TKT6500(P) x 3	XJ997E	350 x 166 x 174	22,8

| A 10 % reserve is recommended for the loads (W) mentioned in the table. | Smallest acceptable size of the battery is 6,5 Ahw

BATTERY CABINETS

Product code	Battery capacity	Protection rating	Weight (kg)
TK6500B	18 x 12 V/15 Ah	IP20	14,0
TK6500BP	18 x 12 V / 15 Ah	IP34	19,0
TKT6500	6 x 12 V / 100 Ah	IP20	28,0
TKT6500P	6 x 12 V / 100 Ah	IP34	35,0

BATTERY CABLES

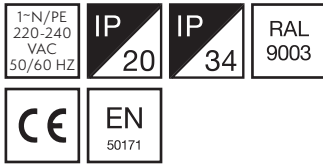
Product code	Length of the battery cable (m)	For
XJ997B	1,5	For 6,5 Ah batteries
XJ997	1,5	For ≥15 Ah batteries
XJ997C	2,5	For two battery cabinets
XJ997E	3,5	For three TKT6500(P) battery cabinets

| Please note a peeling reserve in the length of the battery cable

OPTIONAL FEATURES

Product code	Product description	For
TST6531	Integrated Printer	TKT65xxC(P)
TST6532	LCD Display Module	TKT65xxC(P)
TST6551	IC Interface for 8 circuits each 250 W	TKT6508C(P)
TST6552	IC Interface for 16 circuits each 250 W	TKT6516C(P)
TST6553	IC Interface for 24 circuits each 250 W	TKT6524C(P)
Central monitoring options:		
TST6522	LON Interface	TKT65xxC(P)
TST6501	BACnet Interface	TKT65xxC(P)
TST6521	ACM Interface	TKT65xxC(P)
TST6524	WebCM/ WebACM-Interface	TKT65xxC(P)

TKT65XXBX



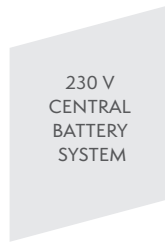
TKT65B series central battery system offers an effective solution to supply medium to high number of emergency and exit lights. It is suitable for medium sized buildings.

The new TKT65xxBP models are equipped with a door and their enclosure class is IP34.

Technical data

- input voltage 230 VAC
- output voltage under normal conditions 230 VAC
- output voltage in battery mode 216 VDC
- battery voltage of 216 V is generated by 18 pieces of 12 V batteries connected in series
- 6, 12, 18 or 24 output circuits

Read more about traditional central battery systems from page 15.



TKT65XXB



TKT65XXBP

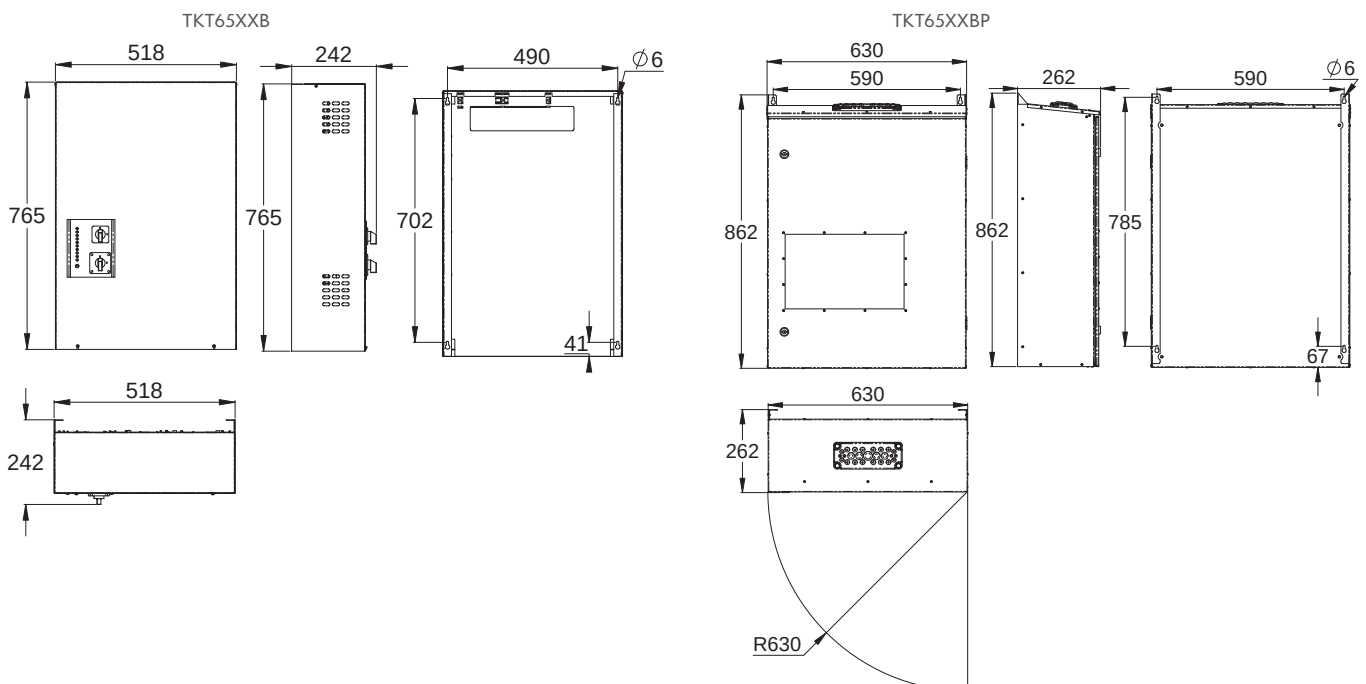


Karisma shopping center, Lahti, Finland

Shopping center Karisma is situated in Karisto, Lahti. Emergency lighting was made using Teknoware's 230 V TKT65B central battery system.

Take a look at our other references at <http://www.teknoware.com/en/emergency-lighting/emergency-lighting-references>

DIMENSIONS



230 V CENTRAL BATTERY SYSTEMS

Product code	Max input power (mains)	Number of circuits/ Outputs	Max total load, mains operation	Max total load, 1 h battery operation	Max total load, 3 h battery operation	Weight (kg)
TKT6506B	2600 VA	6 circuits each 250 W	1500 VA	1500 W	1500 W	27,8
TKT6506BF	2600 VA	6 circuits each 250 W	1500 VA	1500 W	1500 W	27,8
TKT6506BP	2600 VA	6 circuits each 250 W	1500 VA	1500 W	1500 W	27,8
TKT6512B	3680 VA	12 circuits each 250 W	2580 VA	3000 W	3000 W	30,0
TKT6512BF	4100 VA	12 circuits each 250 W	3000 VA	3000 W	3000 W	30,0
TKT6512BP	3680 VA	12 circuits each 250 W	2580 VA	3000 W	3000 W	30,0
TKT6518B	3680 VA	18 circuits each 250 W	2580 VA	4500 W	3340 W	31,0
TKT6518BF	5600 VA	18 circuits each 250 W	4500 VA	4500 W	3340 W	31,0
TKT6518BP	3680 VA	18 circuits each 250 W	2580 VA	4500 W	3340 W	31,0
TKT6524B	3680 VA	24 circuits each 250 W	2580 VA	6000 W	3340 W	31,6
TKT6524BF	7100 VA	24 circuits each 250 W	6000 VA	6000 W	3340 W	31,6
TKT6524BP	3680 VA	24 circuits each 250 W	2580 VA	6000 W	3340 W	31,6

Output voltage: 230 V AC/DC

Batteries: 18 x 12 V (216 V)

Max total load of the Central Battery System = amount of circuits x 120 W

F-letter at the end of the product code: three phase input

P-letter at the end of the product code: IP34

Max battery capacity: 65 Ah

Nominal supply voltage: TKT6506B-TKT6524B: 1~ N/PE 220-240 VAC, 50 Hz, three phase input CBS's: TKT6506BF-TKT6524BF: 3~ N/PE 220-240/380-415 VAC, 50 Hz

Required short circuit current, when using 4 A fuse, applying 0,4 s tripping time: 11 A

Max load inrush current: (single circuit) 120 A/1 ms

BATTERIES (18 x TEAxx / xxAh)

Product code	Size of the battery (Ah)	Max total load, 1 h operation time	Max total load, 3 h operation time	Battery cabinet	Battery cable	Dimensions of the battery (mm)	Weight of the battery (kg)
TEA020	6,5 Ah	870 W	350 W	TK6500B(P)	XJ997B	151 x 65 x 98	2,4
TEA021	15 Ah	1700 W	770 W	TK6500B(P)	XJ997	181 x 76 x 167	5,9
TEA022	24 Ah	2720 W	1250 W	TK6500B(P) x 2	XJ997C	166 x 175 x 125	8,7
TEA023	38 Ah	4550 W	2050 W	TK6500B(P) x 2	XJ997C	197 x 165 x 173	13,8
TEA024	65 Ah	6000 W	3340 W	TKT6500(P) x 3	XJ997E	350 x 166 x 174	22,8

A 10 % reserve is recommended for the loads (W) mentioned in the table. | **Smallest acceptable size of the battery is 6,5 Ahw**

BATTERY CABINETS

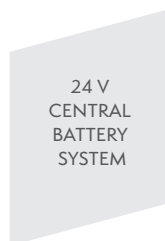
Product code	Battery capacity	Protection rating	Weight (kg)
TK6500B	18 x 12 V/15 Ah	IP20	14,0
TK6500BP	18 x 12 V / 15 Ah	IP34	19,0
TKT6500	6 x 12 V / 100 Ah	IP20	28,0
TKT6500P	6 x 12 V / 100 Ah	IP34	35,0

BATTERY CABLES

Product code	Length of the battery cable (m)	For
XJ997B	1,5	6,5 Ah batteries
XJ997	1,5	≥15 Ah batteries
XJ997C	2,5	For two battery cabinets
XJ997E	3,5	For three TKT6500 battery cabinets

Please note a peeling reserve in the length of the battery cable

TKT31/41XX



TKT31/41 series is an easy and inexpensive solution, for when you want to supply a relatively small number of luminaires in a limited area. The series also is suitable for premises, where the central battery system can be decentralized to several independent areas.

TKT3122 has 4 output circuits. In TKT41xx there are, depending on the type, either 8 or 16 circuit outputs, which can be set in two circuit increments to either maintained or non-maintained.

Technical data

- input voltage 230 VAC
- output voltage main supply 24 VAC
- output voltage battery supply 24 VDC
- battery voltage 24 V is formed by two 12 V batteries connected in series
- TKT3122 has 4 output circuits
- In TKT41xx there are 8 or 16 output circuits
- max 20 luminaires per circuit



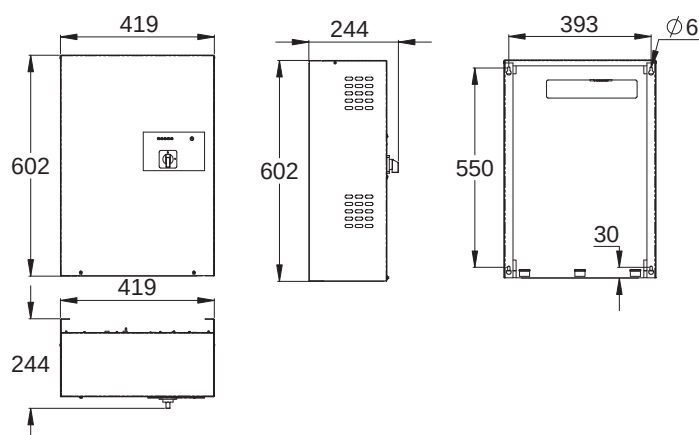
Saboroso, a Portuguese restaurant in Lahti, Finland

The Portuguese Restaurant located in the city center of Lahti in Finland uses Teknoware's 24 V central battery system.

Take a look at our other references at <http://www.teknoware.com/en/emergency-lighting/emergency-lighting-references>

Read more about traditional central battery systems from page 15.

DIMENSIONS



24 V CENTRAL BATTERY SYSTEMS

Product code	Max input power (mains)	Outputs	Output circuit	Max total load, mains operation	Max total load, 1 h battery operation	Max total load, 3 h battery operation	Space for batteries inside the unit	Max battery capacity	Weight (kg)
TKT3122	300 VA	4 x 120 W	Can be set in steps of two circuits / total 4 circuits: • maintained circuits max 120 W / circuit • non-maintained circuits max 190 W / circuit	250 VA	290 W	135 W	2 x 12 V / 24 Ah	24 Ah	12,5
TKT4144	1300 VA	8 x 120 W	Can be set in steps of two circuits / total 8 circuits: • maintained circuits max 120 W / circuit • non-maintained circuits max 190 W / circuit	960 VA	960 W	565 W	2 x 12 V / 38 Ah	100 Ah	24,0
TKT4188	1300 VA	16 x 120 W	Can be set in steps of two circuits / total 16 circuits: • maintained circuits max 120 W / circuit • non-maintained circuits max 190 W / circuit	1050 VA	1370 W	565 W	2 x 12 V / 38 Ah	100 Ah	24,5

| Output voltage: 24 V AC/DC | Batteries needed: 2 x 12 V (24 V) | Nominal supply voltage: 1~ N/PE 220-240 VAC, 50 Hz

BATTERIES (2 x TEAxx / xxAh)

Product code	Size of the battery (Ah)	Max total load, 1 h operation time	Max total load, 3 h operation time	Battery cabinet	Battery cable	Dimensions of the battery (mm)	Weight of the battery (kg)
TEA020	6,5 Ah	95 W	40 W	No separate battery cabinet /cables needed		151 x 65 x 98	2,4
TEA021	15 Ah	180 W	85 W	No separate battery cabinet /cables needed		181 x 76 x 167	5,9
TEA022	24 Ah	290 W	135 W	No separate battery cabinet /cables needed		166 x 175 x 125	8,7
TEA023	38 Ah	490 W	220 W	No separate battery cabinet /cables needed		197 x 165 x 173	13,8
TEA024	65 Ah	800 W	360 W	TK4100	XJ996	350 x 166 x 174	22,8
TEA024B	100 Ah	1370 W	565 W	TK2310	XJ996	327 x 168 x 210	33,5

| A 10 % reserve is recommended for the loads (W) mentioned in the table. | NOTE! TKT3122 max battery 2 x 24 Ah
Smallest acceptable size of the battery is 6,5 Ah

BATTERY CABINETS

Product code	Battery capacity	Weight (kg)
TK2310	2 x 12 V/150 Ah	15,5
TK4100	2 x 12 V/65 Ah	10,0

BATTERY CABLES

Product code	Length of the battery cable (m)	For
XJ996	1,5	≥15 Ah batteries

| Please note a peeling reserve in the length of the battery cable

BATTERY CABINETS

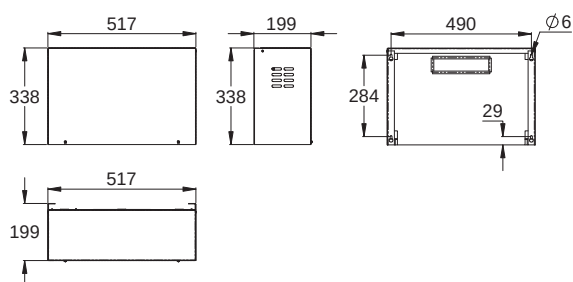


If the central battery system does not have its own battery space, it always needs a separate battery cabinet or several battery cabinets, depending on the size and/or number of batteries.

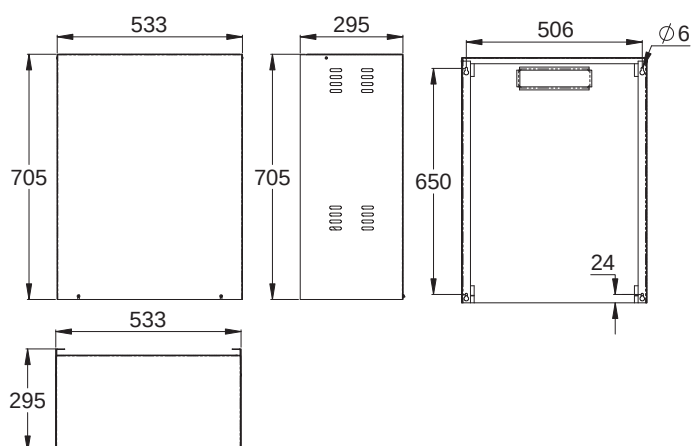
Product code	Battery capacity	Protection rating	Weight (kg)
TK2300	2 x 12 V / 38 Ah	IP20	6,3
TK2310	2 x 12 V / 150 Ah	IP20	15,5
TK4100	2 x 12 V / 65 Ah	IP20	10,0
TK6500B	18 x 12 V / 15 Ah	IP20	14,0
TK6500BP	18 x 12 V / 15 Ah	IP34	19,0
TKT6500	6 x 12 V / 100 Ah	IP20	28,0
TKT6500P	6 x 12 V / 100 Ah	IP34	35,0



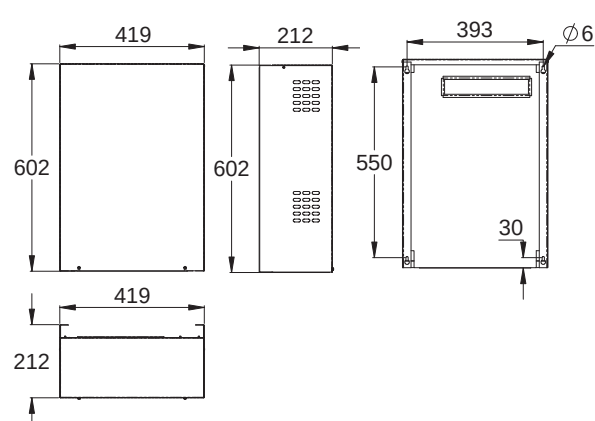
BATTERY CABINET TK2300



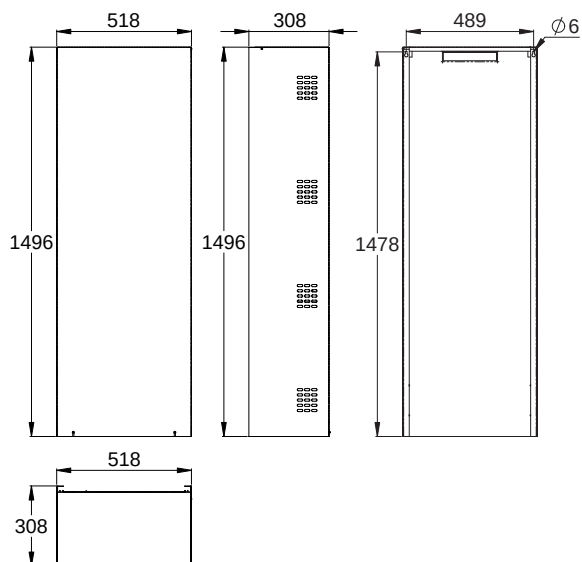
BATTERY CABINET TK2310



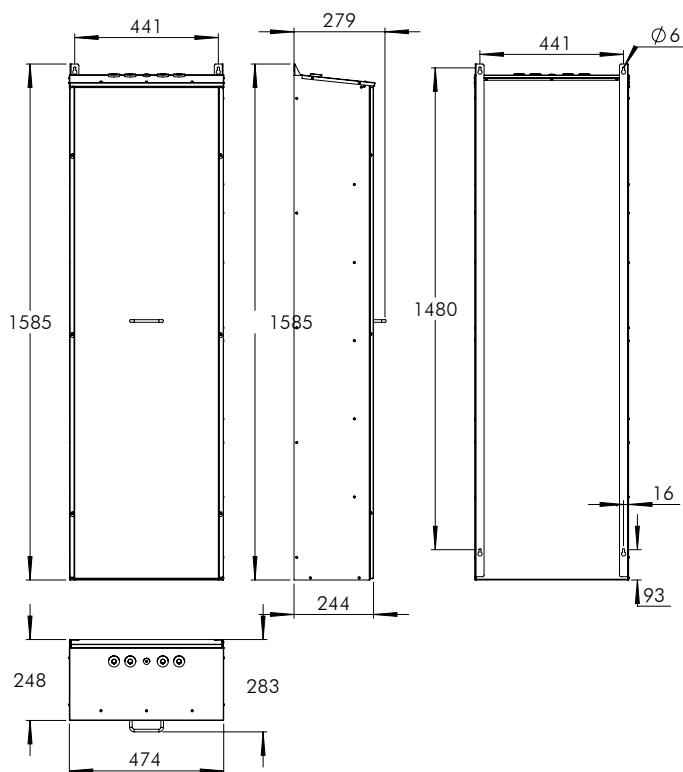
BATTERY CABINET TK4100



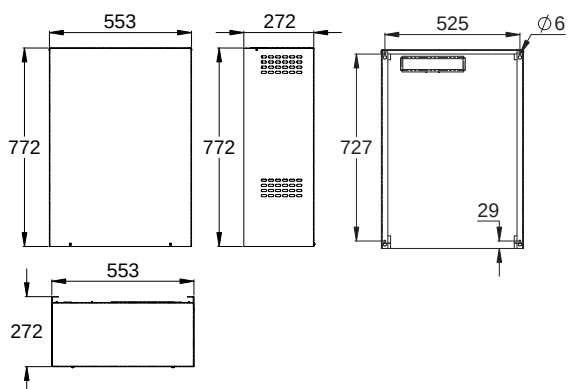
BATTERY CABINET TKT6500



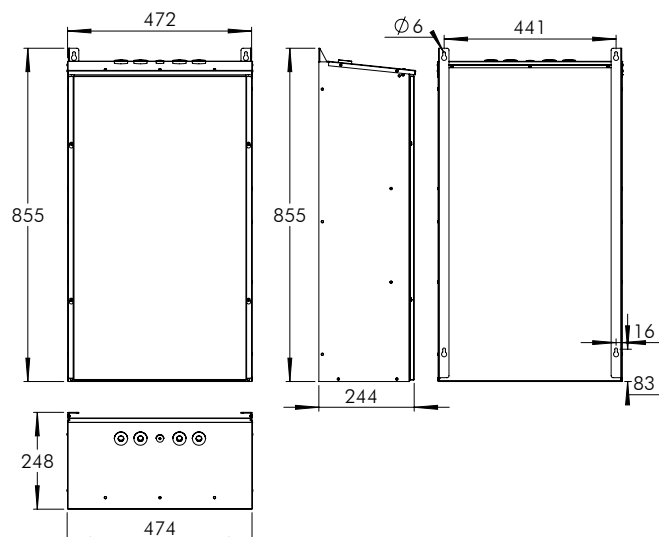
BATTERY CABINET TKT6500P



BATTERY CABINET TK6500B

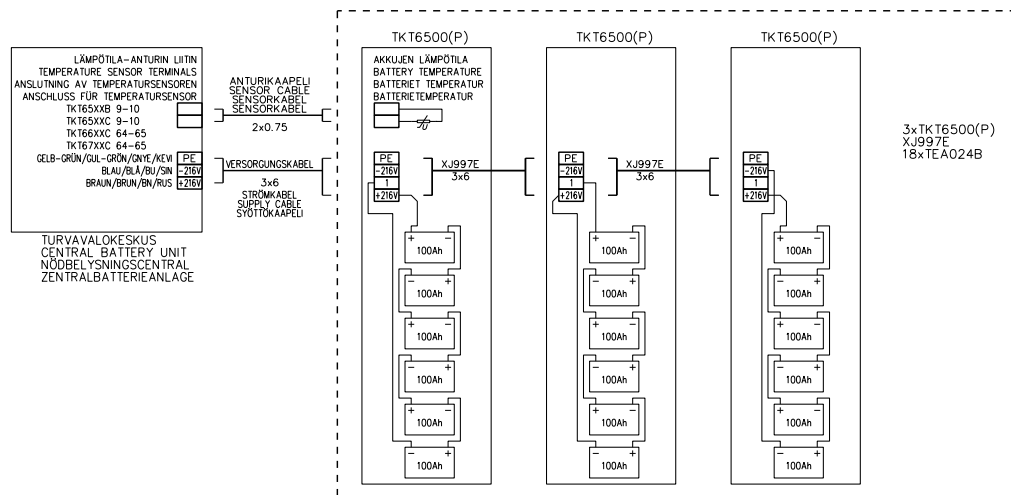


BATTERY CABINET TK6500BP

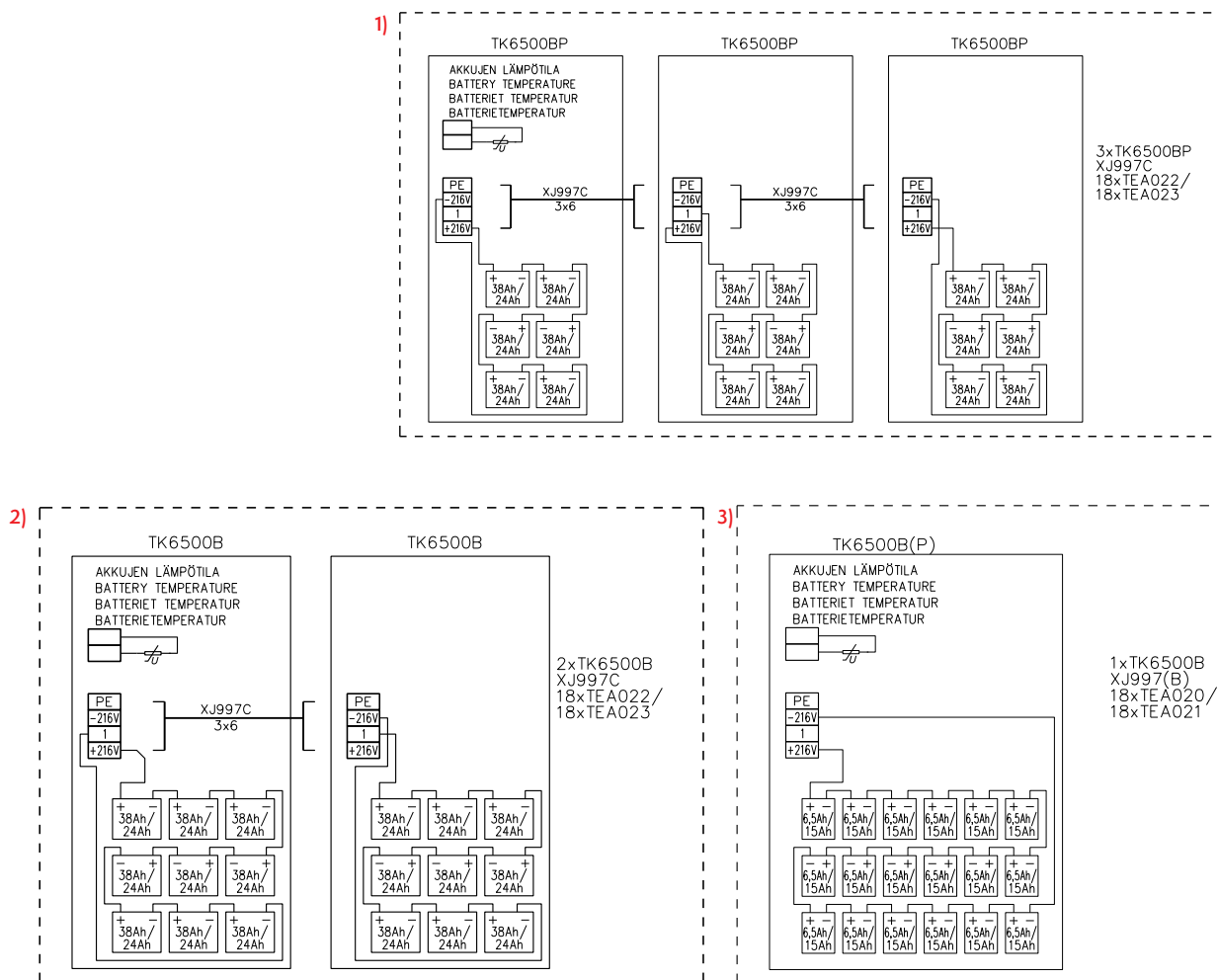


PLACEMENT OF BATTERIES IN BATTERY CABINETS

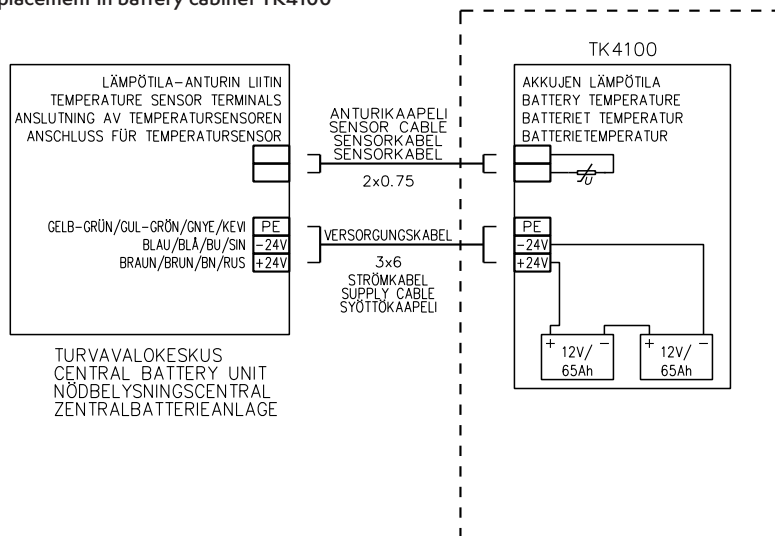
Example of battery placement in battery cabinets TKT6500(P)



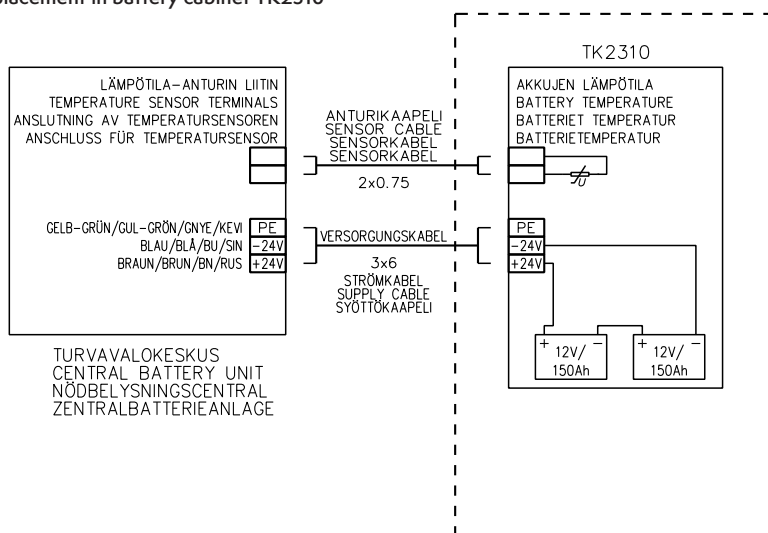
Example of battery placement in battery cabinets TK6500B(P)



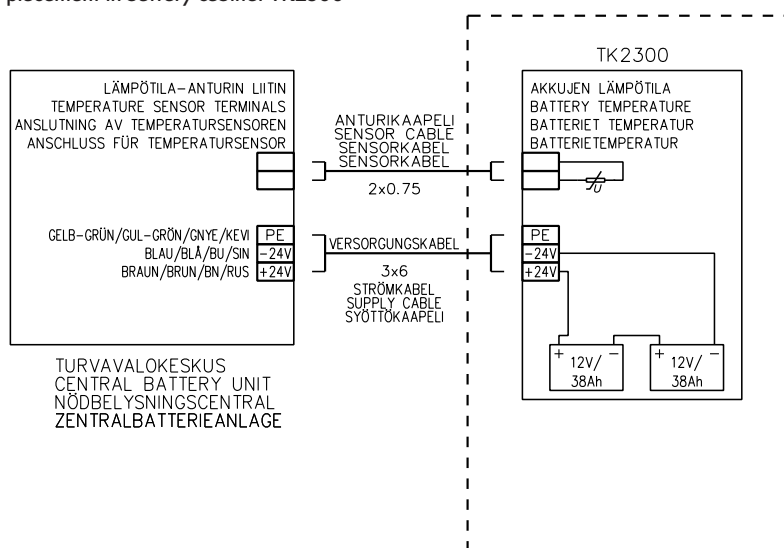
Example of battery placement in battery cabinet TK4100



Example of battery placement in battery cabinet TK2310



Example of battery placement in battery cabinet TK2300



BATTERIES

Product code	Size of the battery (Ah)	Dimensions (mm)	Weight (kg)
TEA020	6,5 Ah / 12 V	151 x 65 x 98	2,4
TEA021	15 Ah / 12 V	181 x 76 x 167	5,9
TEA022	24 Ah / 12 V	166 x 175 x 125	8,7
TEA023	38 Ah / 12 V	197 x 165 x 173	13,8
TEA024	65 Ah / 12 V	350 x 166 x 174	22,8
TEA024B	100 Ah / 12 V	327 x 168 x 210	33,5
TEA024D	150 Ah / 12 V	485 x 172 x 240	47,0



BATTERY CAPACITY / BATTERY MODE DURATION

10 % reserve is recommended for the loads (W) mentioned in the table.

TKT3122 AND TKT41xx CENTRAL BATTERY SYSTEMS

Battery capacity 2 x 12 V (24 V)	Max load, 1 h operation time	Max load, 3 h Operationtime
TEA020 / 6,5 Ah	95 W	40 W
TEA021 / 15 Ah	180 W	85 W
TEA022 / 24 Ah	290 W	135 W
TEA023 / 38 Ah	490 W	220 W
TEA024 / 65 Ah	800 W	360 W
TEA024B / 100 Ah	1370 W	565 W

TKT65xx(C), TKT66xxC AND TKT68xxC CENTRAL BATTERY SYSTEMS

Battery capacity 18 x 12 V (216 V)	Max load, 1 h operation time	Max load, 3 h Operationtime
TEA020 / 6,5 Ah	870 W	350 W
TEA021 / 15 Ah	1700 W	770 W
TEA022 / 24 Ah	2720 W	1250 W
TEA023 / 38 Ah	4550 W	2050 W
TEA024 / 65 Ah	6000 W	3340 W

TKT67xxC CENTRAL BATTERY SYSTEMS

Battery capacity 18 x 12 V (216 V)	Max load, 1 h operation time	Max load, 3 h Operationtime
TEA024 / 65 Ah	7500 W	3340 W
TEA024B / 100 Ah	11780 W	5050 W
TEA024D / 150 Ah	17670 W	7580 W
TEA024C 200 Ah (2 x 100 Ah)	19600 W	10010 W
300 Ah (2 x 150 Ah)	-	15160 W
400 Ah (2 x 200 Ah)	-	19600 W

SHORT CIRCUIT CURRENT OF CIRCUIT CABLES

Fuses of Central Battery Systems	Required short circuit current for 0,4 s tripping time	Max length of 1,5 mm ² cable	Max length of 2,5 mm ² cable	Max length of 6 mm ² cable
TK23xx	11 A	800 m	1300 m	3200 m
TKT65xxB	11 A	800 m	1300 m	3200 m
TKT65xxC*)	7 A	1200 m	2000 m	5000 m
TKT66xxC*), TKT67xxC*) and TKT68xxC*)	10 A	900 m	1500 m	3600 m

*) with addressable luminaires max cable length is 500 m

BATTERY CABLES

Battery cable is needed with a separate battery cabinet

Product code	Length of the battery cable (m)	For	For
XJ995	1,5	6,5 Ah batteries	TKT31, TKT41 and TK23 Central Battery Systems
XJ996	1,5	≥15 Ah batteries	TKT31, TKT41 and TK23 Central Battery Systems
XJ997B	1,5	6,5 Ah batteries	TKT65 and TKT66 Central Battery Systems
XJ997	1,5	≥15 Ah batteries	TKT65 and TKT66 Central Battery Systems
XJ997C	2,5	For two battery cabinets	TKT65 and TKT66 Central Battery Systems
XJ997E	3,5	For three TKT6500 battery cabinets	TKT65 and TKT66 Central Battery Systems
XJ997F	-	≥15 Ah batteries	TKT68 Central Battery Systems
XJ997G	-	6,5 Ah batteries	TKT68 Central Battery Systems

Please note a peeling reserve in the length of the battery cable

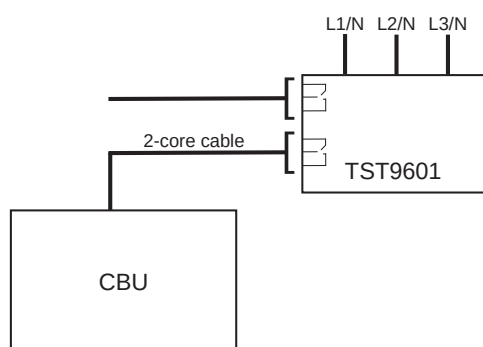
PHASE CONTROLLER MODULES

Phase Controller Modules makes it possible to control 1-4 phases of local fuse boxes. There are 2 pieces of potential-free contact relays, which will be activated, when one or more controlled phases drop out or is missing. Relay outputs can be connected in NO or NC and it is possible to control other devices with them.

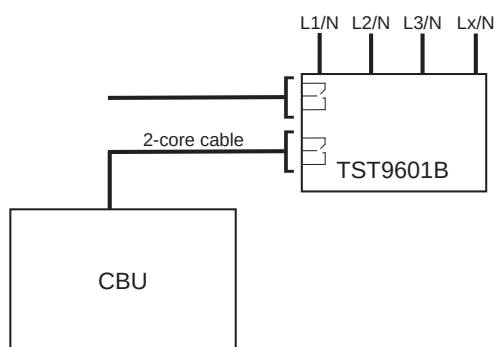


Product code	Input voltage	Feature	Dimensions (mm)
TST9601	220-240 V, 50/60 Hz AC,DC	3-phase controller	117 x 84 x 43
TST9601B	220-240 V, 50/60 Hz AC,DC	4-phase controller	105 x 90 x 58

TST9601



TST9601B



SWITCH CONTROLLER



CONTROL THE
EMERGENCY LIGHTS
WITH A LIGHT
SWITCH OR A TIMER,
UNDER NORMAL
CIRCUMSTANCES



With the Switch Controller TST28xx the emergency lights in the central battery system can be operated by using a light switch, or controlled by a timer, in normal circumstances. When the system switches to DC mode, Switch Controller switches the supply to take place from the central battery system. In this case the luminaires are automatically switched

on, regardless of the position of the light switch.

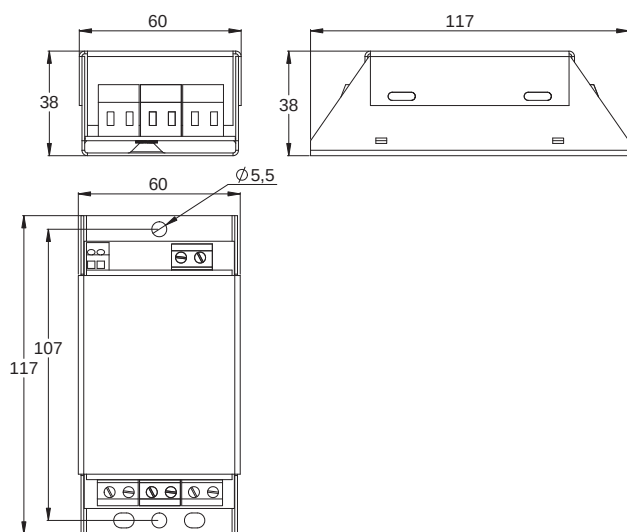
Switch Controllers are compatible with all Teknoware's 230 VAC/DC output central battery systems. They can also be used together with Local Controller.

The devices also have a dimming control

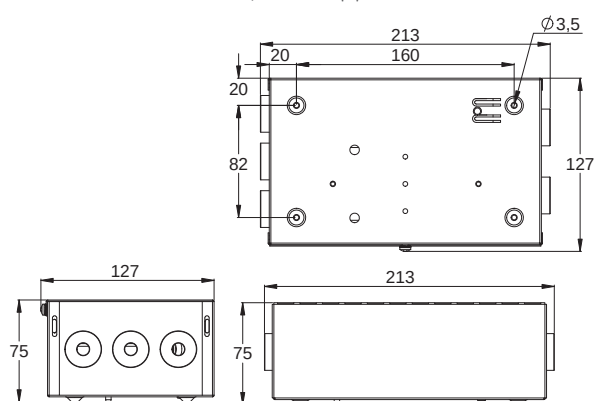
output (except TST8501), which can be used to automatically dim the luminaires during DC operation.

The output is compatible with electronic ballasts that are equipped with 1-10 V analog control input, according to IEC 60929.

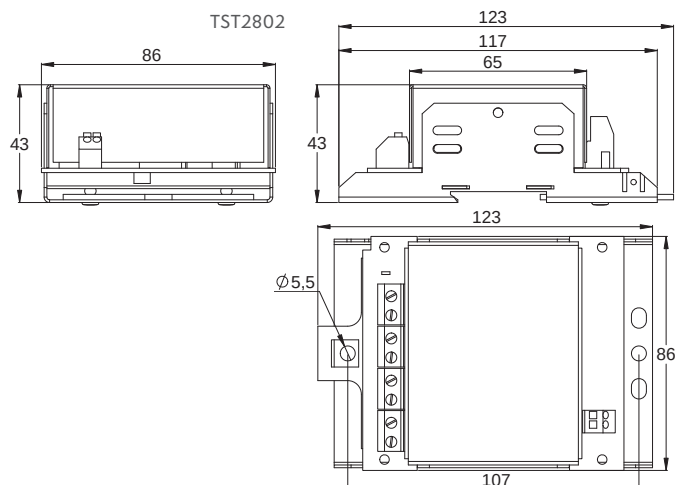
DIMENSIONS
TST2800



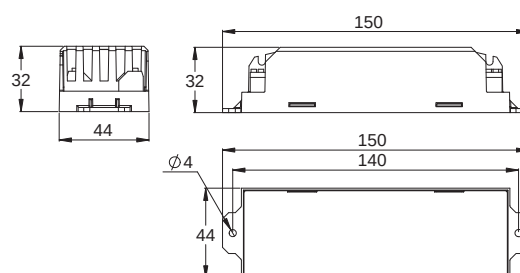
TST2801/ TST2803(B)



TST2802

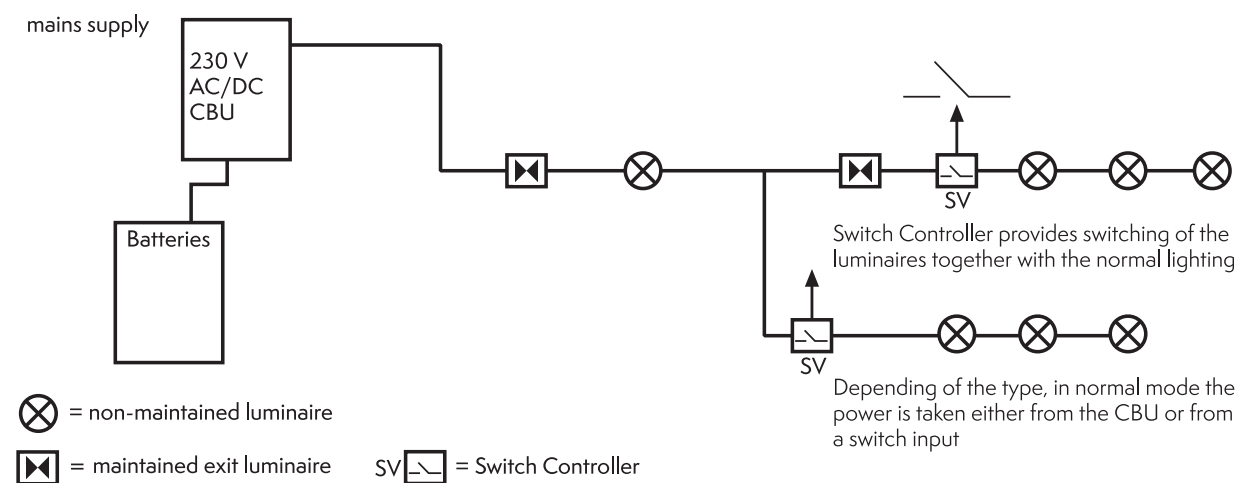


TST8501



SWITCH CONTROLLER

Switch Controller installed to a circuit cable. Switch Controller units can be used to control emergency lights with a light switch or with a timer.



SWITCH CONTROLLER

Product code	Input voltage	Power	Installation	Features
TST2800	230 V AC/DC	250 VA	Inside a distribution panel	• in normal mode the luminaires take their supply from the light switch • controls emergency lights by normal light switch • a dimming control output 1-10 V
TST2801	230 V AC/DC	250 VA	With the junction box enclosure (IP20) for independent installation	• in normal mode the luminaires take their supply from the light switch • controls emergency lights by normal light switch • a dimming control output 1-10 V
TST2802	230 V AC/DC	1400 VA	Inside a distribution panel	• controls emergency lights from Central Battery System • a dimming control output 1-10 V
TST2803	230 V AC/DC	1400 VA	With the junction box enclosure (IP20) for independent installation	• controls emergency lights from Central Battery System • a dimming control output 1-10 V
TST2803B	230 V AC/DC	1400 VA	With the junction box enclosure (IP20) for independent installation	• in normal mode the luminaires take their supply from the light switch • controls emergency lights by normal light switch • a dimming control output 1-10 V
TST8501	230 V AC/DC	1000 VA	Inside a distribution panel	• controls emergency lights from Central Battery System • inverting function in AC

LOCAL CONTROLLER



ADDITIONAL
SAFETY WITH
REDUCED
INSTALLATION
COSTS

ENABLES LOCAL
CONTROL OF
THE EMERGENCY
LIGHTS IN CENTRAL
BATTERY SYSTEMS



Local Controller enables the local control of emergency lights in central battery system. It monitors the electrical network by each fuse box and controls the local emergency lights.

Local Controller allows that the emergency lights are switched on, if irregularities occur in the power supply of the normal lighting. Maintained and non-maintained emergency lights can be connected to the same circuit cable.

Here's how it works

Local Controller is installed to the circuit cable of the emergency lights, before the emergency lights. Voltage data is brought from the fuse box of the area to Local Controller, and it senses the phases of the fuse box. When the phases have deficiencies, the data is transmitted via the Local Controller to the non-maintained emergency lights and they will be switched on. After the normal electrical network has returned, the emergency lights operate for about 20 seconds, after which they are switched off automatically (if the delay is set to 0 minutes).

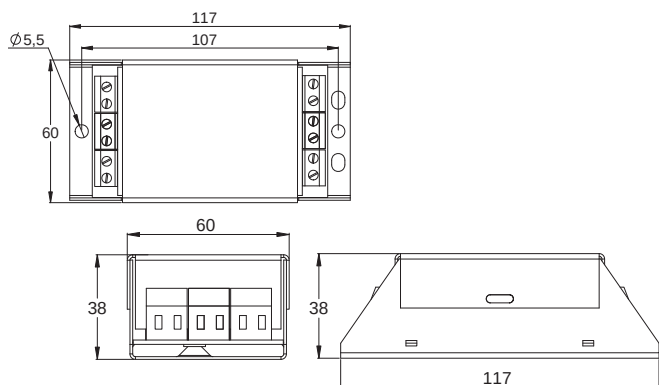
Power failure messages in real time

TST6804 and TST6805 devices also have a switch control input, trimmer or DIP switch. They control how long the luminaires stay on after return of normal input (0-15 minutes).

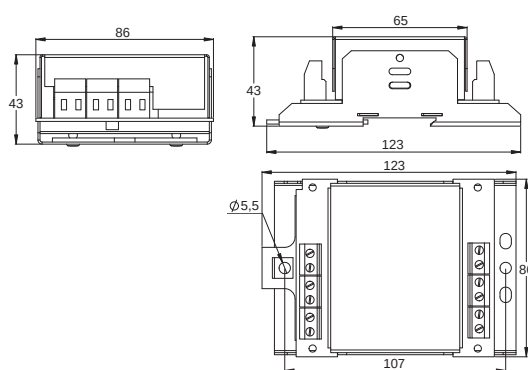
The relay output of the device can also be used to alert of a local power failure.

The non-maintained emergency lights in the Local Controller system must be addressable, with the letter K at the end of the type code.

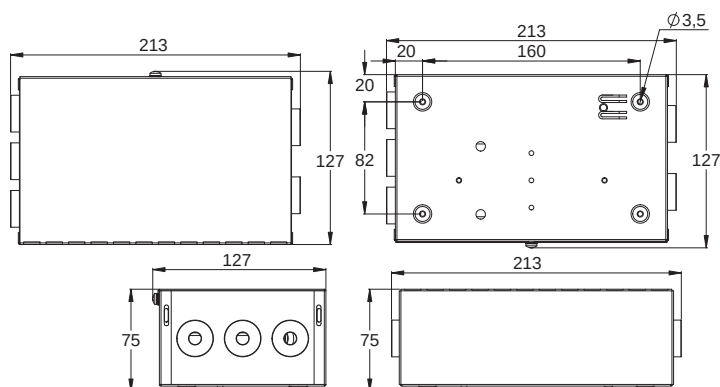
TS90685, TS90695



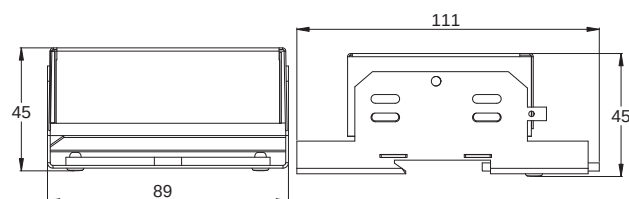
TST6801, TST6803



TS90686, TS90696, TST6802, TST6804

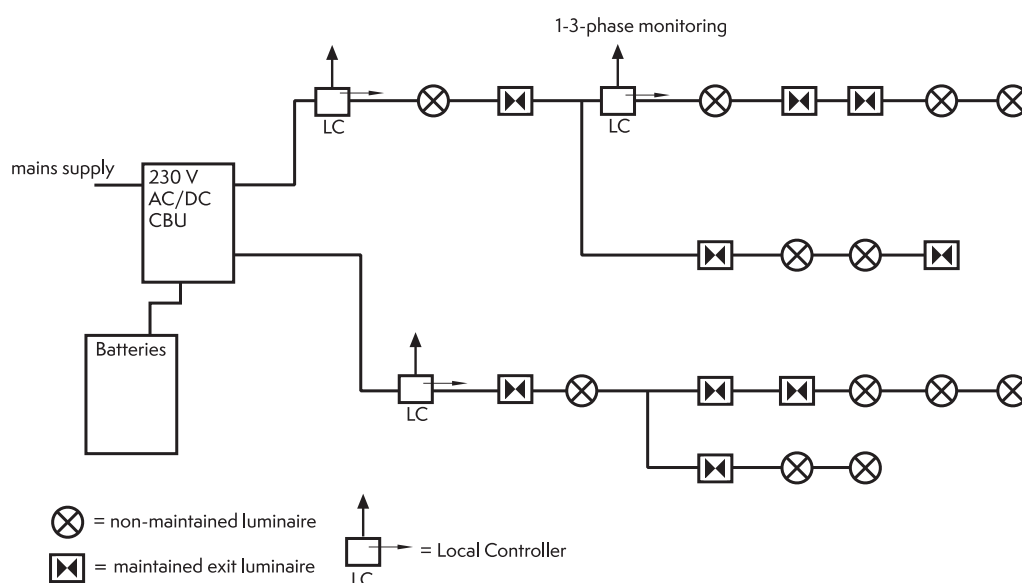


TST6805



SYSTEM DESCRIPTION OF LOCAL CONTROLLER

Install Local Controller in the circuit cabling before the monitored emergency lights. Voltage information is brought from the fuse box of the area.



LOCAL CONTROLLER

Product code	Input voltage	Power	Installation	Features
TS90685	220-240 V, 50/60 Hz AC,DC	250 VA	Inside a distribution panel	1-3-phase monitoring, - Controlling the non-maintained lights through the supply cabling
TS90686	220-240 V, 50/60 Hz AC,DC	250 VA	With the junction box enclosure (IP20) for independent installation	1-3-phase monitoring, - Controlling the non-maintained lights through the supply cabling
TS90695	220-240 V, 50/60 Hz AC,DC	250 VA	Inside a distribution panel	1-3-phase monitoring / 230 V control input, - Controlling the non-maintained lights through the supply cabling, - Switch control input, - Relay contact output from 1-3-phase monitoring (NC/NO), 0-15 min adjustable delay for return to mains operations
TS90696	220-240 V, 50/60 Hz AC,DC	250 VA	With the junction box enclosure (IP20) for independent installation	1-3-phase monitoring / 230 V control input, - Controlling the non-maintained lights through the supply cabling, - Switch control input, - Relay contact output from 1-3-phase monitoring (NC/NO) 0-15 min adjustable delay for return to mains operations
TST6801	220-240 V, 50/60 Hz AC,DC	1400 VA	Inside a distribution panel, DIN rail compatible	1-3-phase monitoring / 230 V control input, - Controlling the non-maintained lights through the supply cabling
TST6802	220-240 V, 50/60 Hz AC,DC	1400 VA	With the junction box enclosure (IP20) for independent installation	1-3-phase monitoring / 230 V control input, - Controlling the non-maintained lights through the supply cabling
TST6803	220-240 V, 50/60 Hz AC,DC	1400 VA	Inside a distribution panel	1-3-phase monitoring / 230 V control input, - Controlling the non-maintained lights through the supply cabling, - Switch control input, - Relay contact output from 1-3-phase monitoring (NC/NO), 0-15 min adjustable delay for return to mains operations
TST6804	220-240 V, 50/60 Hz AC,DC	1400 VA	With the junction box enclosure (IP20) for independent installation	1-3-phase monitoring / 230 V control input, - Controlling the non-maintained lights through the supply cabling, - Switch control input, - Relay contact output from 1/3-phase monitoring (NC/NO) 0-15 min adjustable delay for return to mains operations
TST6805	220-240 V, 50/60 Hz AC,DC	1400 VA	Inside a distribution panel	- Intelligent Controller (IC) compatible, 1-3-phase monitoring / 230 V control input, - Controlling the non-maintained lights through the supply cabling, - Switch control input, - Relay contact output from 1-3-phase monitoring (NC/NO), 0-15 min adjustable delay for return to mains operations with 1 minute spacing with DIP Switch

SEPARATE ADDRESS MODULES

Input voltage: 220-240 V, 50/60 Hz AC,DC

Addresses: 32

Temperature range: -25°...+50°

When the address modules are used, also the luminaires to be used must comply with the emergency lighting standards



Product code	Max load	Max input power	Current limit for fault detection	Output voltage	Maintained / non-maintained	Feature	Dimensions (mm)
TS98261	1 VA / 1 W	60 VA	10±5 mA	230 V DC	Maintained	• C	98 x 41 x 21
TS98263	1 VA / 1 W	60 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • IC • C • Local Controller	98 x 41 x 21
TS98263B	1 VA / 1 W	60 VA	5±2,5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • IC • C • Local Controller	98 x 41 x 21
TS98253	1 VA / 1 W	100 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • IC • C • Local Controller	98 x 41 x 21
TS98253B	1 VA / 1 W	100 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • IC • C • Local Controller • SLIM model	142 x 30 x 25
TS98254	1 VA / 1 W	200 VA	10±5 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • IC • C • Local Controller	150 x 44 x 32
TS98255	2 VA / 2 W	625 VA	400 mA	230 V DC	Maintained / non-maintained	• Function can be selected with a DIP switch • C • Local Controller	150 x 44 x 32
TS98271	2 VA / 2 W	200 VA	10±5 mA	N/A	—	• Dimming in emergency mode • DALI • IC • C	150 x 43 x 32
TS98281	1,5 VA / 1,5 W	200 VA	10±5 mA	220-240 V, 50/60 Hz AC,DC	Maintained / non-maintained	• Function can be selected with a DIP switch • Phase input • Switch control output • IC • C • Local Controller	150 x 43 x 32

C = Compatible with Tapsa Control Central Battery Systems

IC = Compatible with Intelligent Controller

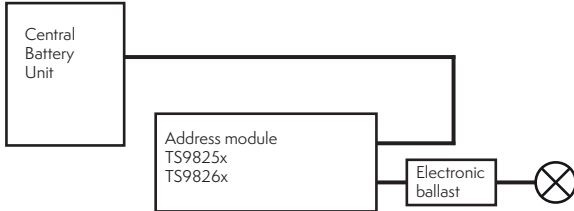
Local Controller = Compatible with Local Controller

DALI = Compatible with DALI function

NOTE! The DALI compatibility of the ballast is dependent upon different manufacturers and products, always ensure compatibility.

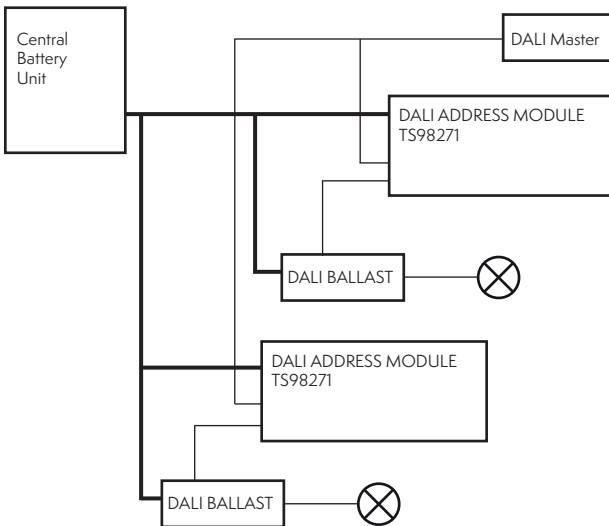
SEPARATE ADDRESS MODULE CONNECTIONS

Address module (TS9825x and TS9826x) connections



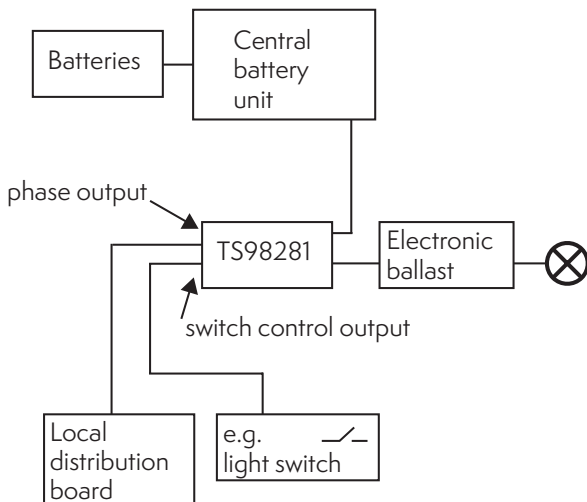
Address module will be connected to the circuit cabling and luminaire ballast.

DALI address module (TS98271) connection



DALI address module is connected to the circuit cable, DALI ballast and DALI Master. TS98271 is a DALI compatible address module connected to the luminaire. It simulates the function of the DALI master. Luminous output can be adjusted 10-100% manually.

TS98281 address module connection



TS98281 is an addressable module, with switch and supply monitoring input. The function is similar to that with the Local Controller and Switch Controller. TS98281 address module is used with one luminaire and with one controlled phase.

INTELLIGENT CONTROLLER (IC)



DIN rail compatible TST8801
IC Input Module

Product code	Product description	Dimensions (mm)
TST8801	IC Input Module	105 x 90 x 58

Product code	Product description	For
TST6551	Interface + IC PC Software	TKT6508C
TST6552	Interface + IC PC Software	TKT6516C
TST6553	Interface + IC PC Software	TKT6524C
TST6651	Interface + IC PC Software	TKT6608C
TST6652	Interface + IC PC Software	TKT6616C
TST6653	Interface + IC PC Software	TKT6624C
TST6752	Interface + IC PC Software	TKT6716C
TST6753	Interface + IC PC Software	TKT6724C
TST6754	Interface + IC PC Software	TKT6732C
TST6755	Interface + IC PC Software	TKT6740C
TST6756	Interface + IC PC Software	TKT6748C
TST6757	Interface + IC PC Software	TKT6756C
TST6851	Interface + IC PC Software	TKT6808C
TST6852	Interface + IC PC Software	TKT6816C
TST6853	Interface + IC PC Software	TKT6824C

INTELLIGENT CONTROLLER - INTELLIGENT LIGHTING CONTROL

With Teknoware's Intelligent Controller (IC) the non-maintained emergency lights can be controlled with the help of freely selected voltage inputs. When the voltage from one or more fuse boxes voltage drops out, specified emergency lights switch on with AC voltage. Emergency lights can also be used as normal luminaires, which are controlled by a switch or by a sensor.

IC Input module includes:

- 8 voltage inputs, each with its own galvanic separated L and N connectors
- With DIP switch adjustable address

IC system consists of the following components:

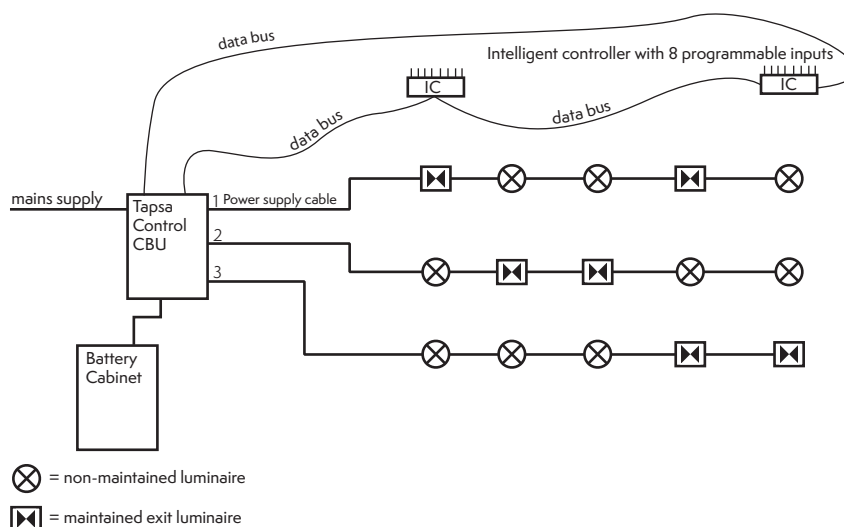
- TKT65C, TKT66C, TKT67C or TKT68C addressable Tapsa Control central battery system, addressable, K model emergency lights
- TST8801, IC Input module (Max 31 pcs in one IC system)
- TST6x5x, Lighting control interface for a central battery system (includes PC software)

Easy to program and install

System settings are programmed with a PC software during commissioning. Programming is saved in the memory of the central battery system. The PC is only required during the initial programming.

Each input in the IC input module can be set to control any luminaire or luminaires, in the desired circuits.

In the system, also Logical switches can be programmed, in which groups are formed out of the inputs of IC Input Module, with the help of which the luminaires can be switched on and off. The single inputs and logical switches can be used inverted, i.e. the luminaire switches off when voltage comes into the input.



Intelligent Controller is connected to the central battery system with interference-shielded 2x0,75mm² data cable. Length of the cable is 1,500 m, current loss 20 V and input current 80 V.

WEBCM & WEBACM

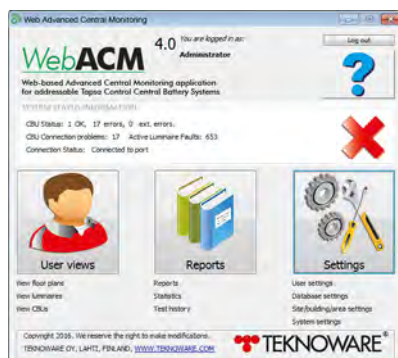
WebACM

Web Advanced Central Monitoring

CONTROLS
CENTRAL
BATTERY
SYSTEMS
NETWORK

NOTIFICATION
OF ERROR
SITUATIONS
ARE SENT
BY EMAIL

SHOWS THE
LOCATION OF
THE LUMINAIRES
AND THE CENTRAL
BATTERY SYSTEMS
IN THE BUILDING



WEBCM SYSTEM

With the help of WebCM system the central battery system can be centrally controlled in the network, regardless of the location. The system includes a Web module, which is connected in the central battery system. Each central battery system has an IP address and a normal web browser functions as the user interface.

In its basic form, the system displays the status of the central battery systems and the connected luminaires, as well as the test log book. The user may also run luminaire and battery tests.

WebCM is available for addressable central battery systems in TKT65, TKT66, TKT67 and TKT68 series. The system does not require a separate software, a PC or a multimedia device with a web browser is sufficient.

WEBACM SOFTWARE

WebACM is an additional software for the WebCM system. It functions via Ethernet TCP/IP.

WebACM software enables the placement of luminaires and central battery systems on the buildings layout drawing.

WebACM needs Java supported software and PC with Internet connection. In fault situations, WebCM and WebACM send a notification automatically to e mail addresses specified by the user. Both can control centrally several addressable central battery systems and addressable luminaires.

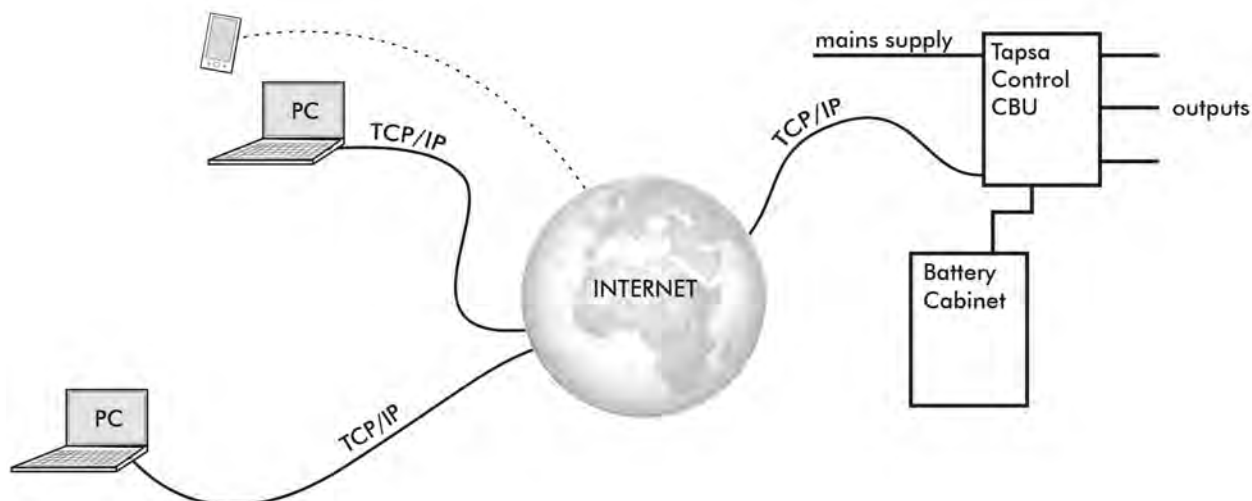
Both include control of tests, test log, central battery system status, various user levels and the login with a user name and password.

WebACM system can be connected to a BACnet building automation system.

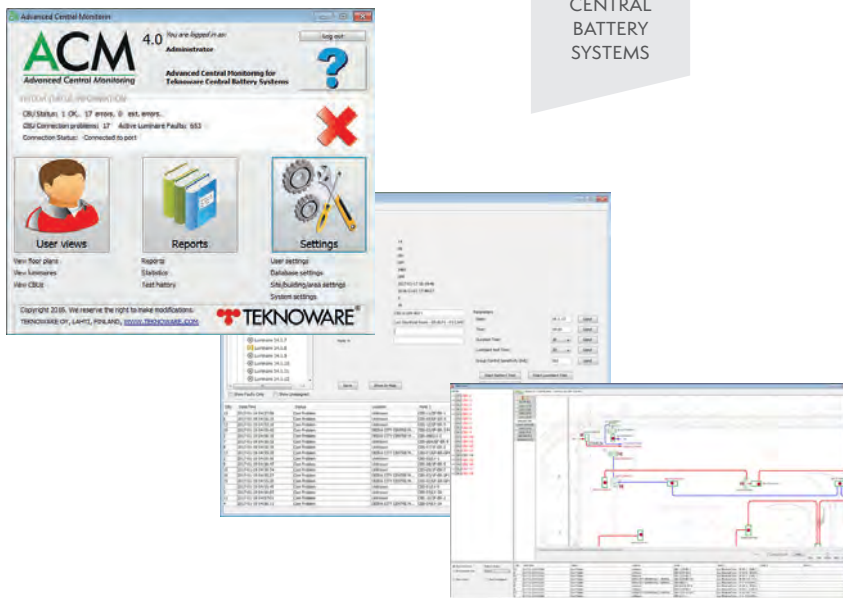
Product code	Product description
TST5161	WebACM Software
TST5181	WebACM software BACnet Interface (max. 30 central battery systems)
TST5142	BACnet Interface (always to the next group 30 central battery systems)

Product code	Product description	For
TST6724	WebCM/ WebACM Interface	TKT67xxC
TST6824	WebCM/ WebACM Interface	TKT68xxC
TST6624	WebCM/ WebACM Interface	TKT66xxC
TST6524	WebCM/ WebACM Interface	TKT65xxC

WebCM/ACM Interface connection with CAT 5/6 cable.



CONNECT
UP TO 150
CENTRAL
BATTERY
SYSTEMS



ACM PC MONITORING SYSTEM

Teknoware's Advanced Central Monitoring (ACM) is a centralized remote monitoring system, using a separate network, for Teknoware's addressable central battery systems.

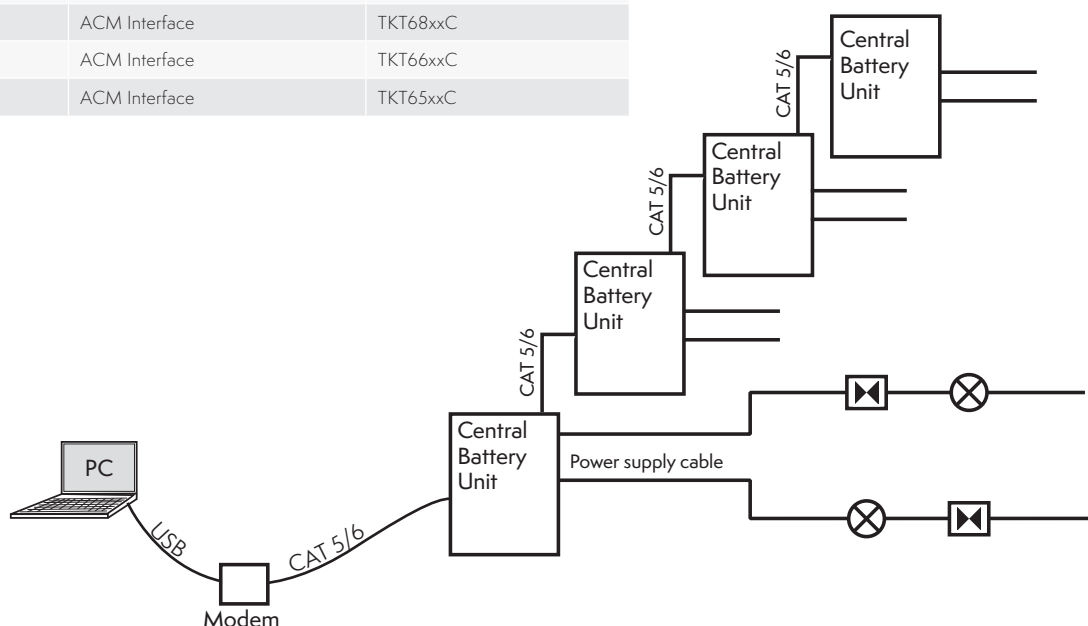
ACM uses RS485 protocol, which enables up to 1 km distance between the central battery system and the computer. 1-150 central battery systems can be connected into a single ACM system.

The condition of the central battery systems and the luminaires can be seen from the screen of the ACM remote management system software. The user may also run luminaire and battery tests. ACM automatically saves a test log book in accordance with the standard EN 50172.

From the computer with ACM, it is possible to connect e.g. to a building automation system using BACnet.

Product code	Product description
TST5131	ACM PC Software and modem
TST5141	ACM PC system with BACnet Interface
TST5142	BACnet Interface (always to the next group 30 central battery systems)

Product code	Product description	For
TST6721	ACM Interface	TKT67xxC
TST6821	ACM Interface	TKT68xxC
TST6621	ACM Interface	TKT66xxC
TST6521	ACM Interface	TKT65xxC



⊗ = non-maintained emergency luminaire
 ⊞ = maintained exit luminaire

PC with ACM software is connected to a modem with a USB cable, extension from the modem to the central battery unit is done with CAT 5/6 cable.

BACNET

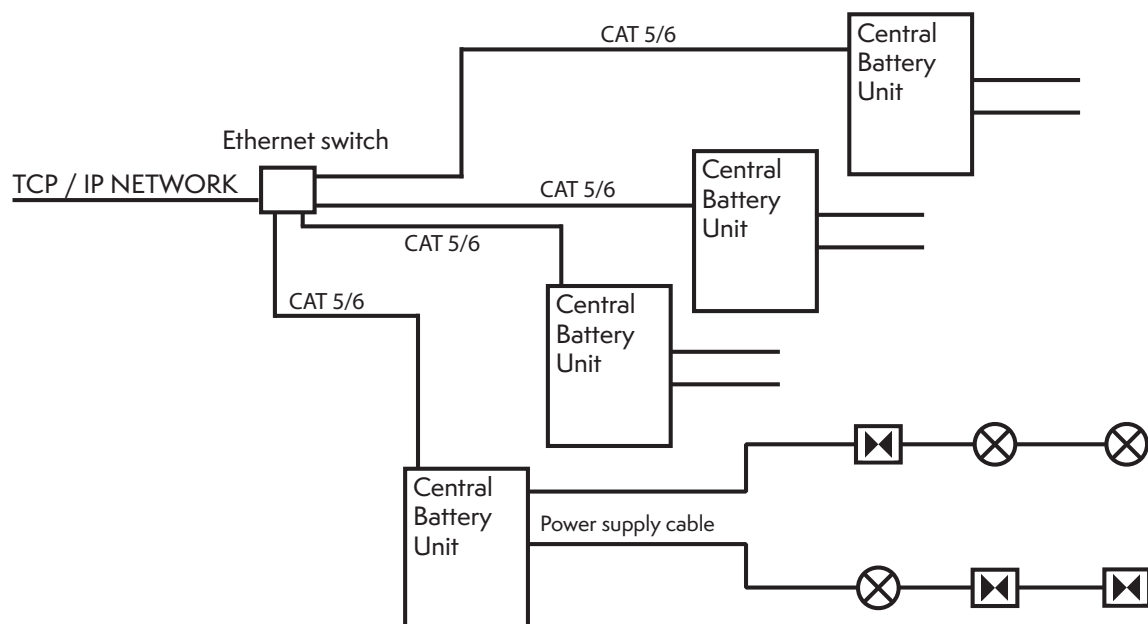
Product code	Product description	For
TST6701	BACnet Interface	TKT67xxC
TST6823	BACnet Interface	TKT68xxC
TST6601	BACnet Interface	TKT66xxC
TST6501	BACnet Interface	TKT65xxC

BACNET INTEGRATION

If the central battery system has a BACnet module, it provides a direct interface to a building automation system. In BACnet integration, all the information of the central battery system, which is imported into BACnet as objects, are available.

Teknoware's interface is the BACnet module, which transmits the BACnet objects from the central battery system and the luminaires. Battery and luminaire tests can also be initiated in this way.

BACnet system is commonly used through a third party user interface.



- ⊗ = non-maintained emergency luminaire
- ⊞ = maintained exit luminaire

| BACnet Interface with CAT 5/6 cable.

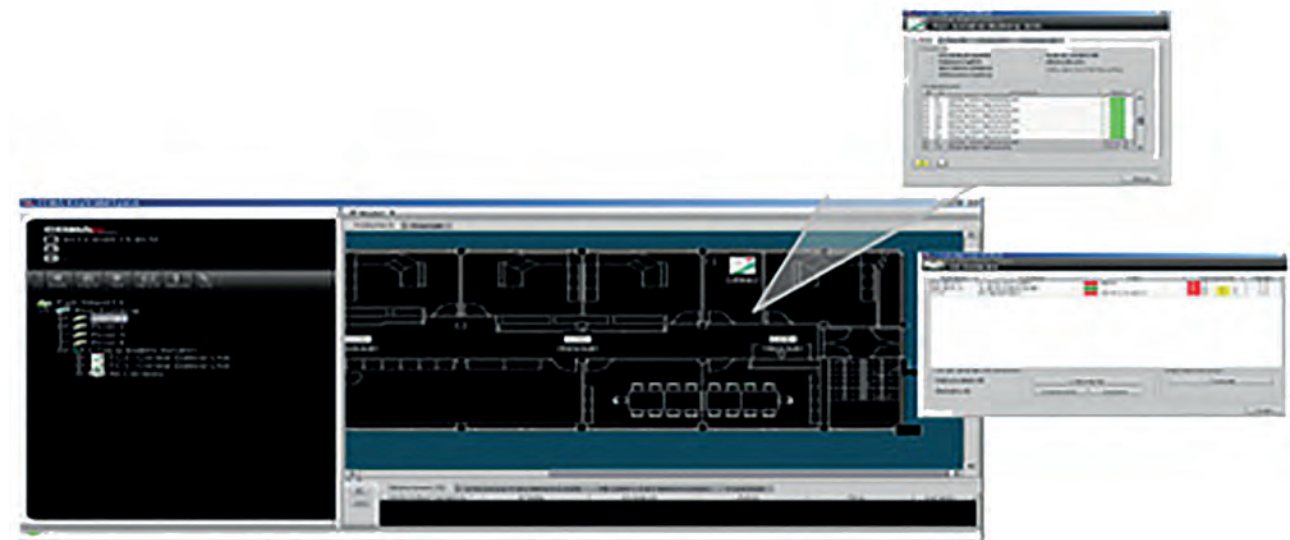
Product code	Product description	For
TST6722	LON Interface	TKT67xxC
TST6822	LON Interface	TKT68xxC
TST6622	LON Interface	TKT66xxC
TST6522	LON Interface	TKT65xxC
XKT2301	LON Interface	TK23xxC

PC also requires separate COBA software

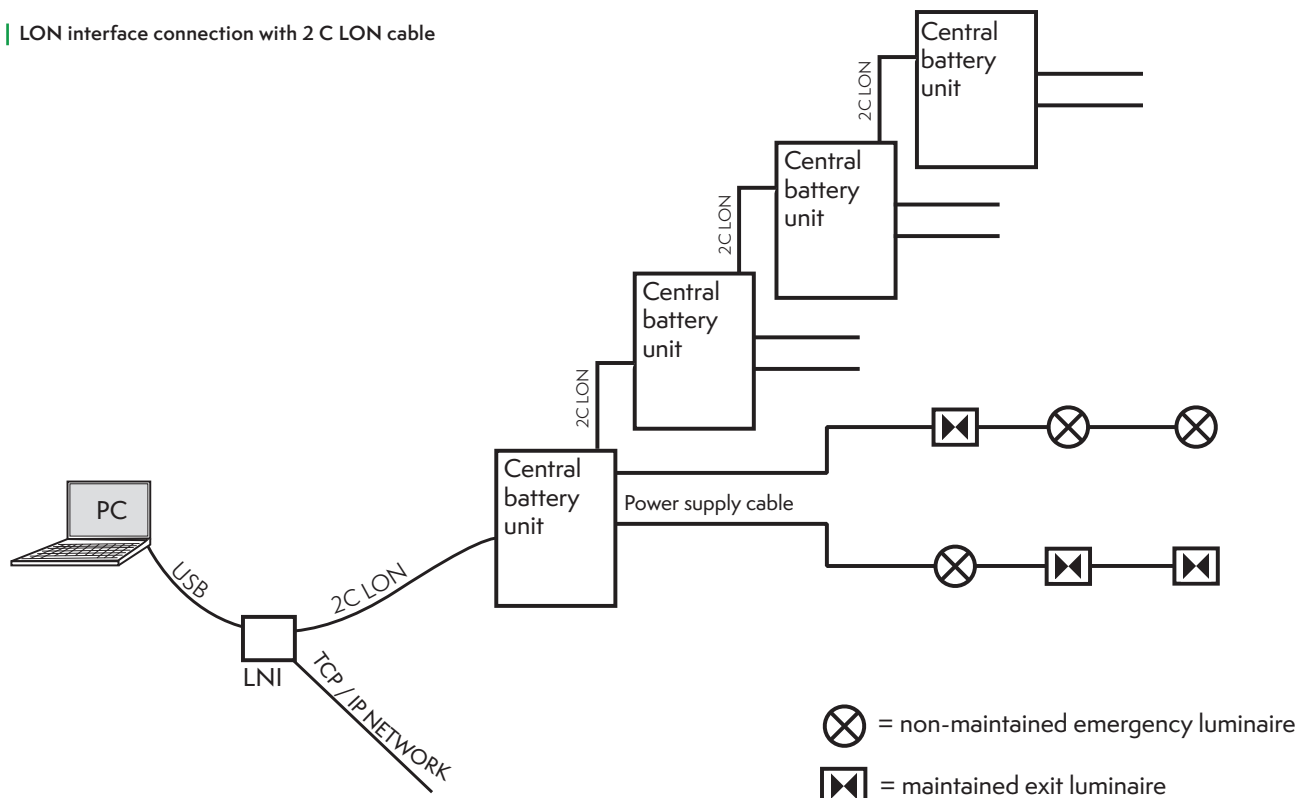
LON central monitoring solution is based on the COBA Building Operating System, which offers a standard open platform for building automation and security systems.

The LON interface also makes it possible to access all information from the field, in a centralised manner.

The system consists of an open LON network and a server, which link the Central Battery Systems together.



LON interface connection with 2 C LON cable





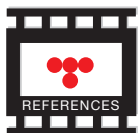
CASE Burg Lockenhaus (castle), Lockenhaus, Austria

Burg Lockenhaus is a castle from the 1200th century. The castle is nowadays a museum, restaurant and hotel. During the latest renovation in 2015, the castle's emergency lighting system was also renewed.

Castle uses Teknoware's addressable central battery system. Central battery system is from the product family TKT65C (p. 22).

Emergency light product range consists of Zonespot II Lowbay (p. 176) and Midbay (p. 182) as well as SAFE 29.

ESC 80 (p. 70) exit lights are also used in the castle.



CASE Palace hotel, Tallinn, Estonia

Hotel Palace is a city center hotel built in 1937. It is one of the most spectacular functionalist buildings of its era. The luxurious hotel was thoroughly renovated and was re opened in 2014.

The hotel has Teknoware's ESC 90 exit lights with self-testing (p. 64).

EXIT AND EMERGENCY LIGHTS

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ESCAP SELF-CONTAINED LUMINAIRES WITH 10 YEARS WARRANTY



ESCAP THE GREENEST WAY TO SAFETY 

Environmental protection forms a part of our shared social responsibility. Here at Teknoware, we do our part by lowering emissions. The best way to do this is with our own award-winning, innovative know-how.

ESCAP is a technology pioneer in emergency lighting

Emergency lighting solutions are greatly influenced by the emergency power supply, traditionally the battery, as well as its location. In a central battery system the centralized batteries supply the luminaires, making the system easy to service and test. In a self-contained system, each luminaire contains its own battery, which makes planning and installation of the system easy and flexible, thanks to a simple cabling. In addition to the harmful substances in their batteries, self-contained luminaires have the disadvantage of the limited lifetime of the batteries. In addition, the changing of the battery of the self-contained luminaires is very laborious.

ESCAP technology, combined with the wireless Aalto Control remote monitoring system, combines the advantages of central battery systems and self-contained luminaires, and eliminates their disadvantages.

In ESCAP luminaires the electrical energy required in the emergency mode is not stored into the battery's electrochemical process, but into very high capacitance low voltage super capacitors. As early as in their presentation year of 2008, ESCAP luminaires were awarded the "Innovative Product Award" at the Electricity and Telecommunications fair STVAV in Jyväskylä, Finland. Since then, hundreds of emergency lighting systems with ESCAP emergency and exit lights have been implemented in various locations, in many different countries. ESCAP self-contained luminaires can be connected to a wireless Aalto Control remote monitoring system, which means that also their supervision is easy.

Lifetime of ESCAP luminaires is over 10 years

ESCAP technology offers over 10 years of freedom from maintenance for luminaires. By making use of super capacitors, ESCAP luminaires' life time is over 10 years. Teknoware undertakes this by offering ESCAP emergency and exit lights a 10 year warranty program,

which applies to the typically wearing parts of the luminaires, i.e. emergency power source (super capacitors) and light sources (leds).

ESCAP luminaires are environmentally friendly

ESCAP emergency and exit lights do not contain any harmful substances. Unlike batteries, the super capacitors and the complete ESCAP luminaires can be recycled as standard electronics waste. ESCAP is truly the environmentally friendly solution.

ESCAP emergency and exit lights are suitable for Nordic conditions

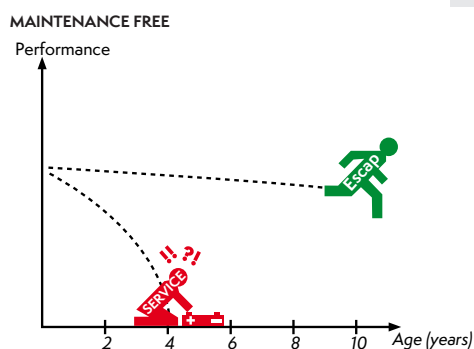
Unlike batteries, super capacitors used in the ESCAP luminaires also work in the cold. ESCAP luminaires have a very wide operating temperature range -25°C...+ 35°C so they can also be used outdoors, for example in shelters and in parking halls.



Look at ESCAP luminaire
warranty conditions

<http://www.teknoware.com/en/emergency-lighting/escap-emergency-and-exit-lights>

- ESCAP technology eliminates the problems with battery-powered luminaires, such as the limited life time of batteries and the laborious maintenance work of changing the batteries.
- ESCAP emergency and exit lights have a 10 year warranty program
- The life time of ESCAP luminaires is more than ten years.
- ESCAP luminaires are completely maintenance-free throughout their entire life cycle.
- ESCAP luminaires are environmentally friendly and can be recycled as standard electronics waste
- ESCAP luminaires are using super capacitors for energy storage, thereby reducing charging time, compared to traditional battery technologies.
- ESCAP luminaires' energy consumption is very small, in practice with a fully charged super capacitor there is no loss in power at all.
- ESCAP luminaires have a very wide operating temperature range -25°C...+ 35°C so they can also be used outdoors, for example in shelters and in parking halls.
- ESCAP emergency and exit lights can be connected to the wireless Aalto Control remote monitoring system



Teknoware's ESCAP luminaires received the Innovative Product Award at the Electricity and Telecommunications fair STVAV in 2008.

AALTO CONTROL WIRELESS MONITORING UNIT FOR WALL-MOUNTING

AALTO[®]
CONTROL Wireless Monitoring Unit
for Emergency Lighting

With Aalto Control Wireless Monitoring Unit (WMU) you can monitor and control self-contained Aalto Control luminaires, both ESCAP luminaires and luminaires with batteries. The monitoring unit, with an easy-to-use 7" touch screen and a clear user interface, is mounted permanently on the wall. Aalto Control WMU has an indoor range of 40 meters to the nearest luminaire, the same as from luminaire to other luminaires.

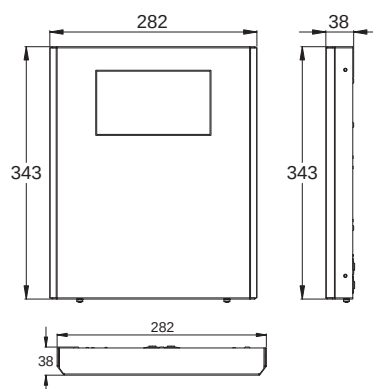
MONITOR
UP 500
EXIT AND
EMERGENCY
LUMINAIRES

USER
FRIENDLY
7" DISPLAY

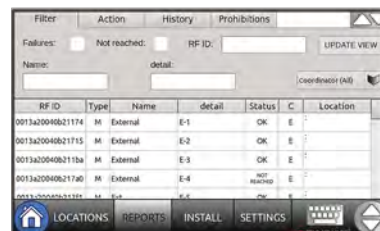
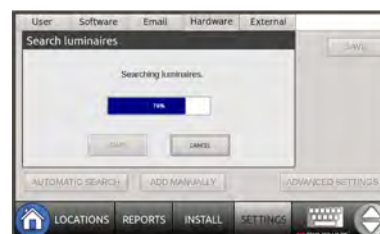
WALL
MOUNTED
MONITORING
UNIT



TST5108 DIMENSIONS



AALTO CONTROL
LUMINAIRES



Product code	Product description
TST5108	Aalto Control WMU, Wireless Monitoring Unit (wall mounted)
TST5103	Aalto Control Wireless / Ethernet Coordinator (2-pin "Europlug"), (TST5103B=3-pin "UK-plug")
TST5105	Aalto Control Signal Amplifier (can be used if the distance between luminaires exceeds 40 m) (2-pin "Europlug"), (TST5105B=3-pin "UK-plug")

AALTO CONTROL WMU FEATURES

- Works independently, without a separate PC or Coordinator
- Possibility to add one external Coordinator via Ethernet
- Functions on AC power, does not interfere with the electrical supply to the luminaires
- History data files of the luminaires can be stored on a USB stick
- Prohibition times can be defined for luminaire and duration time tests
- Definable and selectable levels of user access
- Saving of luminaire and location information and the test history in a database
- The relay output with indication of fault condition enables the transmission of fault information into other systems

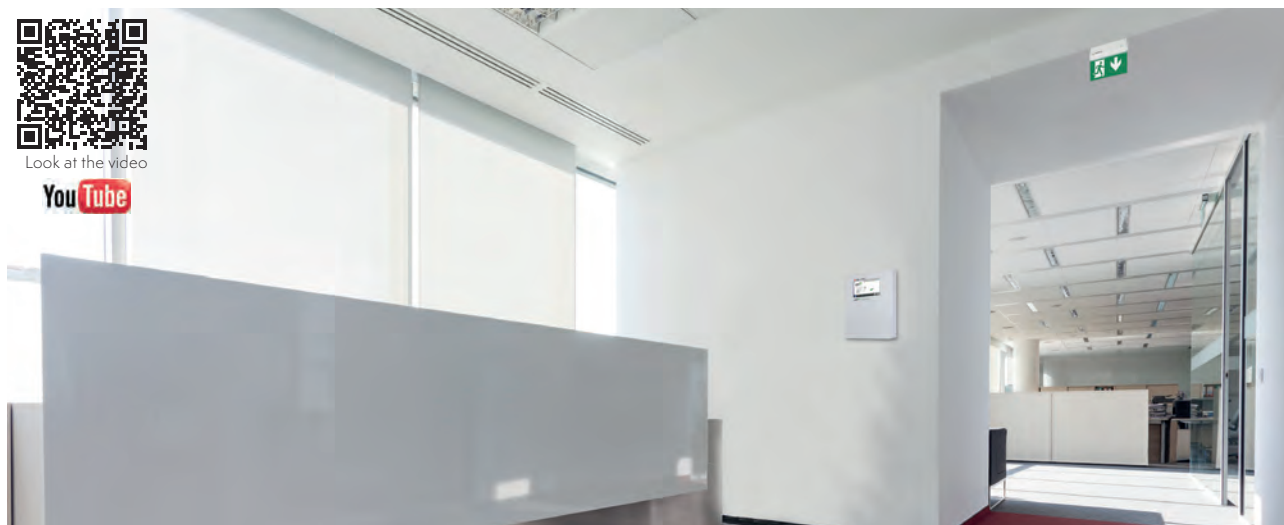
TECHNICAL DATA

Frequency	2,4 GHz
Transmitter power output	3,1 mW
Receiver sensitivity	-100 dBm
Indoor range	up to 40 m
Outdoor range	up to 80 m

CERTIFICATION OF WIRELESS TECHNOLOGY

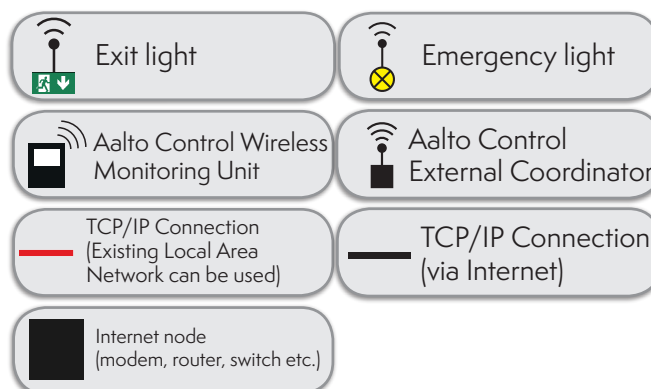
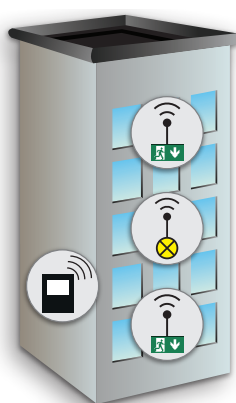
USA (FCC Part 15.247)
Industry Canada (IC)
Europe (CE) ETSI
RoHS compatible

AALTO CONTROL WMU SYSTEM COMPONENTS



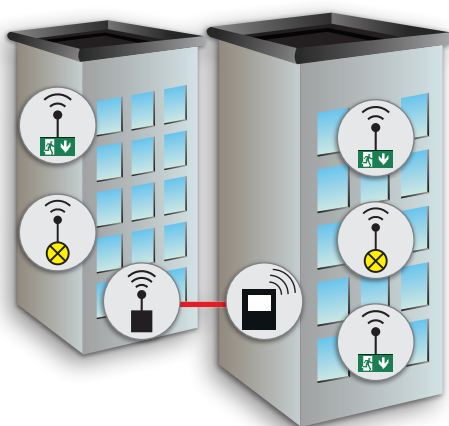
AALTO CONTROL WMU BASIC SYSTEM LAYOUT

1



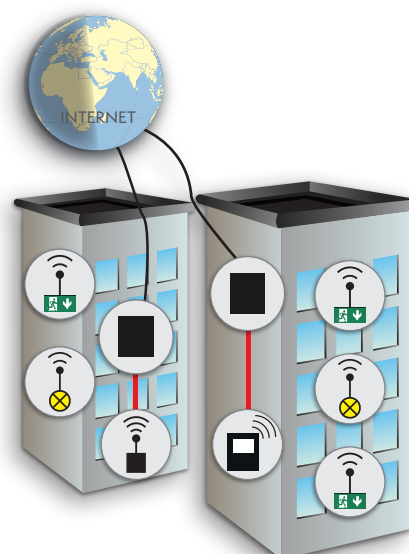
AALTO CONTROL WMU + EXTERNAL COORDINATOR

2



CONNECTION VIA INTERNET

3



AALTO CONTROL WIRELESS CENTRAL MONITORING FOR SELF-CONTAINED LUMINAIRES



PC SYSTEM

WIRELESS CENTRALISED REMOTE MONITORING OF SELF-CONTAINED EMERGENCY AND EXIT LIGHTS

Aalto Control remote monitoring enables the monitoring of self-contained luminaires wirelessly in a centralized manner. System does not require data cabling from one luminaire to another. Local power supply to the luminaires is enough.

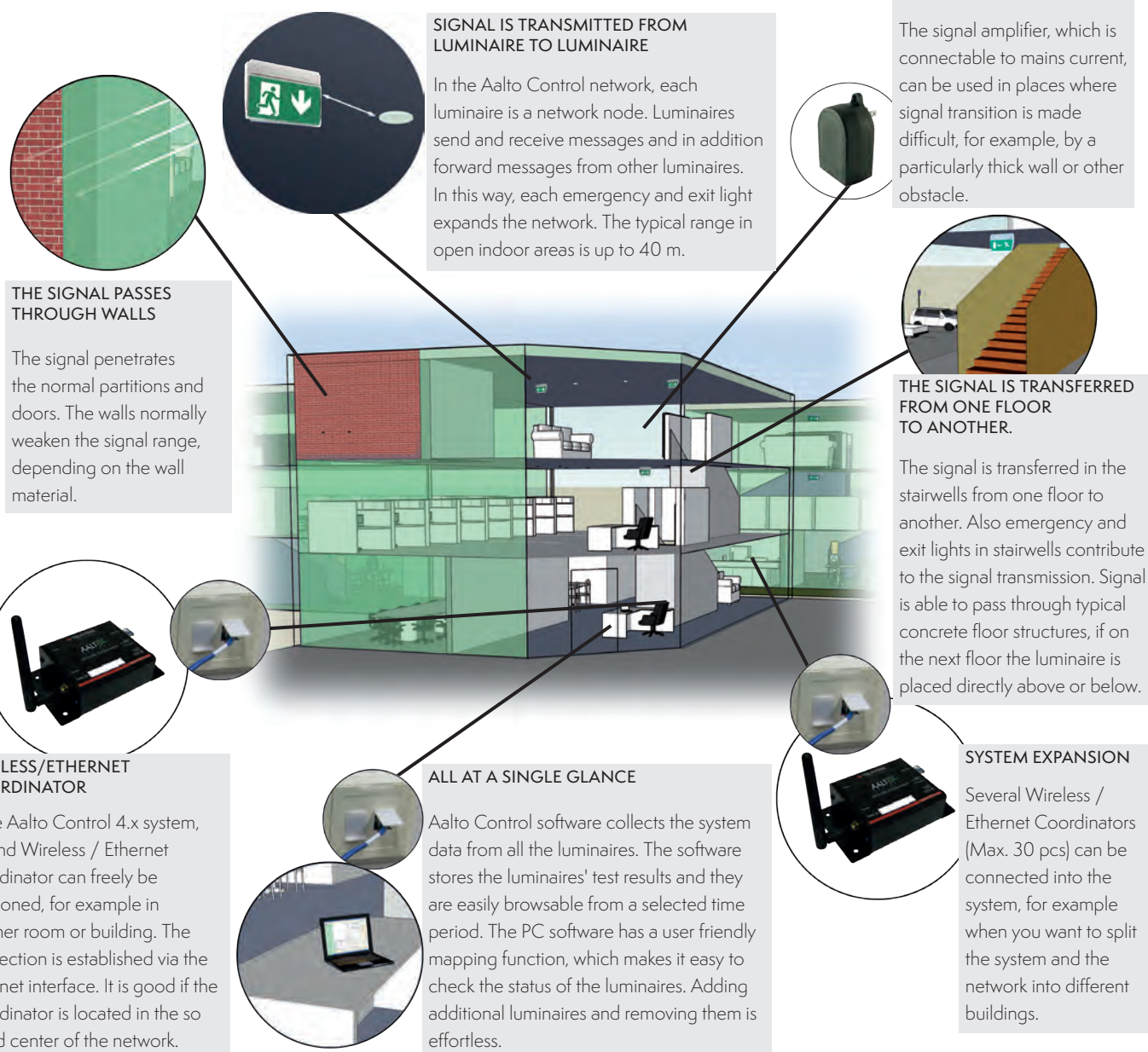
Installation is simple and luminaires can be easily positioned, even together whilst during renovations. Each luminaire

is a network node. It sends and receives messages to and from other luminaires. The signal penetrates light partition walls and doors, and moves with ease from one floor to another via stairways.

Aalto Control is very fault tolerant. It uses the network only for data collection. The network does not affect the operation of the luminaires. Aalto Control compatible luminaires have the letter A in the end

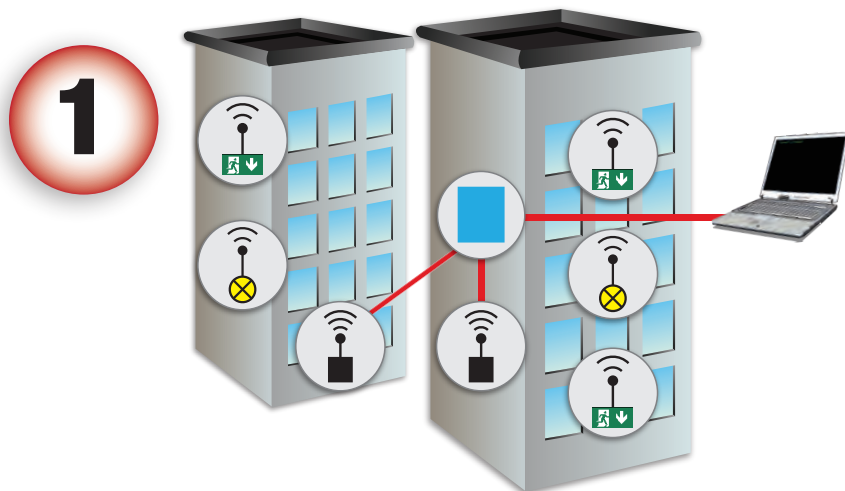
of the product code. Aalto Control luminaire always includes the Lumi Test self testing feature. Up to a maximum of 800 luminaires per coordinator can be connected into one system.

Aalto Control 4.x PC software and the system allows for several different coordinators and networks to be added into single Aalto Control system.

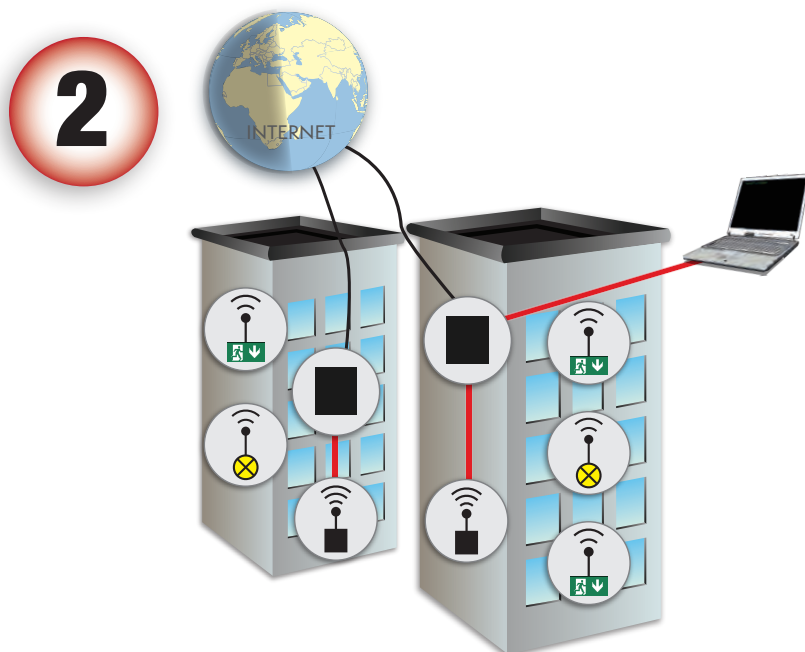


AALTO CONTROL PC SYSTEM LAYOUT

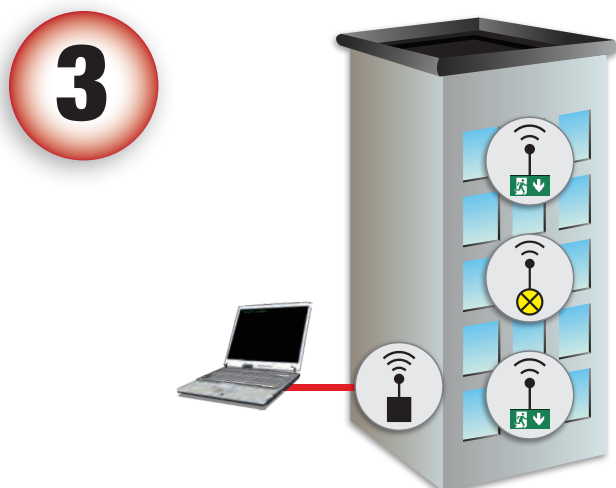
TYPICAL AALTO CONTROL PC SYSTEM



VIA INTERNET TO THE AALTO CONTROL PC SYSTEM



COORDINATOR DIRECTLY TO THE PC



Exit light



Emergency light



Aalto Control
External Coordinator



PC

TCP/IP Connection
(Existing Local Area
Network can be used)

TCP/IP Connection
(via Internet)



Internet node
(modem, router, switch etc.)



Switch / Router

AALTO CONTROL PC SYSTEM FEATURES

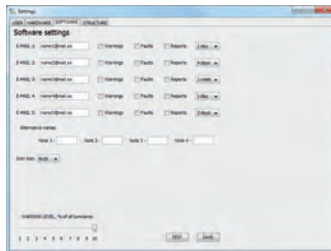
Aalto Control 4.x PC System features

- Up to 5,000 luminaires in the system
- Max 800 luminaires per Coordinator
- Centralized remote management of several Aalto Control Wireless / Ethernet Coordinators, from one location
- The system can be decentralized into different sections, e.g. in different buildings
- The system components can be freely positioned in Ethernet network
- Wider operating range using Signal Amplifiers in challenging locations
- Renewed graphical layout
- Improved user interface
- Display of luminaire data with RFID code, luminaire's name, location, or freely selectable text fields
- Detailed information about the luminaires is displayed on the layout drawing, by using the mouseover function
- Input of the luminaire data from a CSV file, manually, using a barcode reader or the automatic search function



Aalto Control PC software

Khalifa Port (harbour), Abu Dhabi,
United Arab Emirates



AALTO[®]
CONTROL PC SYSTEM

TECHNICAL DATA

Frequency	2,4 GHz
Transmitter power output	3,1 mW
Receiver sensitivity	-100 dBm
Indoor range	up to 40 m
Outdoor range	up to 80 m

WIRELESS TECHNOLOGY CERTIFICATES

USA (FCC Part 15.247)
Industry Canada (IC)
Europe (CE) ETSI
RoHS compatible

Product code	Product description
TST5103(B)	Aalto Control Wireless / Ethernet Coordinator (2-pin "Europlug"), (TST5103B=3-pin "UK-plug")
TST5104C	Aalto Control PC Software, max. 5000 luminaires
TST5105(B)	Aalto Control Signal Amplifier (2-pin "Europlug"), (TST5105B=3-pin "UK-plug")
TST5107	Aalto Control Relay Output Module, a module which enables the Aalto system to control a relay-based device, such as an alarm device, or an indicator light



Aalto Wireless / Ethernet Coordinator



Aalto Control Exit Light



Aalto Control
Emergency Light



Aalto Control
Signal Amplifier

LUMI
T E S T



Aalto Control always includes Lumi Test self testing feature

Lumi Test self testing takes care of the monitoring of the reliable operation, and the automatic testing of the luminaire.

The luminaire status is displayed with two indicator leds, one green and the other red. When the red led is lit, it signals a fault condition of the luminaire.

The operation tests of the luminaire and its light source are carried out on a daily basis. Full emergency mode duration time is tested every 6 months. Product codes for the self-contained luminaires with self testing are ending in the letter M or A.

LUMI TEST INDICATION LEDS

		No supply
		Normal mode
		Low energy storage
		Light source fault
		Battery/capacitor fault
		Battery/capacitor disconnected
		Battery/capacitor fault and light source fault
		Test in progress

Symbols

		Slow blinking (1 Hz, once / second)
		Fast blinking (2 Hz, twice / second)
		OFF
		ON

PAN ID code (= Aalto Control network code)

With the PAN ID code, Aalto Control luminaires can be locked to function with a certain Aalto Control Wireless / Ethernet Coordinator. This is useful for example in a situation where the Aalto Control system containing several Aalto Control Wireless / Ethernet Coordinators needs to be divided into separate networks.

If there is already an existing Aalto Control system at the site, and new Aalto Control luminaires are to be added

afterwards, the PAN ID Code of the existing Aalto Control network needs to be communicated to Teknoware. In this way, the PAN ID network codes can already be set at Teknoware's factory for the new Aalto Control luminaires, which are to be added at a later stage into the system.

PAN ID code may contain a maximum of four (4) characters consisting of letters (a-f) and/or numbers. The code could be for example 123F. Teknoware automatically sets the default code 5457, unless otherwise specified.



The Aalto Control luminaire is supplied together with three RFID/PAN ID stickers, one of which, for example, is glued to the outside of the luminaire, the second to mark the location of the luminaire on the layout drawing of the building, and the third is a spare label.

SELF-CONTAINED ESCAP EXIT LIGHTS WITH SUPER CAPACITOR

Supply voltage 220-240 V AC

Aalto = Aalto Control compatible (incl. Lumi Test)

M = Self-contained luminaire with Lumi Test self-testing

Escap = Self-contained luminaire with 1 h Super capacitor backup

SUPPLY
VOLTAGE:
220-240 V
AC

Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
ESC 81	IP44	TWS8192WA	LED	1 h Escap + Aalto	82
		TWS8192WM	LED	1 h Escap + M	82
ESC 80	IP44	TWS8092WA	LED	1 h Escap + Aalto	75
		TWS8092WM	LED	1 h Escap + M	75
ESC 90	IP44	TWS9092WA	LED	1 h Escap + Aalto	67
		TWS9092WM	LED	1 h Escap + M	67
ESC 10	IP20	TWS8592W	LED	1 h Escap	88
		TWS8592WA	LED	1 h Escap + Aalto	88
Silver	IP20	TWS8592WM	LED	1 h Escap + M	88
		TWS6592WA	LED	1 h Escap + Aalto	102
Silver	IP20	TWS6592WM	LED	1 h Escap + M	102
		TWS6692WA	LED	1 h Escap + Aalto	106
Silver	IP20	TWS6692WM	LED	1 h Escap + M	106
		TWS6792WA	LED	1 h Escap + Aalto	110
Silver	IP20	TWS6792WM	LED	1 h Escap + M	110
		TWS6892WA	LED	1 h Escap + Aalto	114
ESC 6 L	IP44	TWS6892WM	LED	1 h Escap + M	114
		TWS6292WA	LED	1 h Escap + Aalto	118
ESC 4	IP44	TWS6292WM	LED	1 h Escap + M	118
		TWS1792W	LED	1 h Escap	122
Solid Exit	IP65	TWS1792WA	LED	1 h Escap + Aalto	122
		TWS1792WM	LED	1 h Escap + M	122
Solid Exit	IP65	TWS3092WA	LED	1 h Escap + Aalto	140
		TWS3092WM	LED	1 h Escap + M	140



SELF-CONTAINED ESCAP EMERGENCY LIGHTS WITH SUPER CAPACITOR

Supply voltage 220-240 V AC

Aalto = Aalto Control compatible (incl. Lumi Test)

M = Self-contained luminaire with Lumi Test self-testing

Escap = Self-contained luminaire with 1 h Super capacitor backup

SUPPLY
VOLTAGE:
220-240 V
AC

		Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
		Linespot (recess mounting)	IP20	TWS5092WA	LED	1 h Escap + Aalto	172
				TWS5092WM	LED	1 h Escap + M	172
		Linespot II Lowbay (surface mounting)	IP44	TWS9992WA	LED	1 h Escap + Aalto	154
				TWS9992WM	LED	1 h Escap + M	154
		Linespot II Midbay (surface mounting)	IP44	TWS8892WA	LED	1 h Escap + Aalto	160
				TWS8892WM	LED	1 h Escap + M	160
		Zonespot II Lowbay (surface mounting)	IP44	TWS9292WA	LED	1 h Escap + Aalto	178
				TWS9292WAC	LED	1 h Escap + Aalto	178
				TWS9292WM	LED	1 h Escap + M	178
				TWS9292WMC	LED	1 h Escap + M	178
		Zonespot II Midbay (surface mounting)	IP44	TWS9392WA	LED	1 h Escap + Aalto	184
				TWS9392WAC	LED	1 h Escap + Aalto	184
				TWS9392WM	LED	1 h Escap + M	184
				TWS9392WMC	LED	1 h Escap + M	184
		Zonespot II Lowbay (recess mounting)	IP20/ IP44	TWS0492WA	LED	1 h Escap + Aalto	192
				TWS0492WAC	LED	1 h Escap + Aalto	192
				TWS0492WM	LED	1 h Escap + M	192
				TWS0492WMC	LED	1 h Escap + M	192
		Linespot II Lowbay (recess mounting)	IP20/ IP44	TWS1492WA	LED	1 h Escap + Aalto	166
				TWS1492WM	LED	1 h Escap + M	166
		Slimspot (recess mounting)	IP20	TWS9792WA	LED	1 h Escap + Aalto	230
				TWS9792WM	LED	1 h Escap + M	230
		Solid Line/ Zone Lowbay (surface mounting)	IP65	TWS3292WA	LED	1 h Escap + Aalto	198
				TWS3292WM	LED	1 h Escap + M	198
				TWS4292WA	LED	1 h Escap + Aalto	204
				TWS4292WM	LED	1 h Escap + M	204
		Solid Line/ Zone Midbay (surface mounting)	IP65	TWS3692WA	LED	1 h Escap + Aalto	210
				TWS3692WM	LED	1 h Escap + M	210
				TWS4392WA	LED	1 h Escap + Aalto	216
				TWS4392WM	LED	1 h Escap + M	216

SELF-CONTAINED EMERGENCY & EXIT LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

Supply voltage 220-240 V AC
Aalto = Aalto Control compatible (incl. Lumi Test)

SUPPLY
VOLTAGE:
220-240 V
AC

	Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
	Solid Exit	IP65	TWT3053WA	LED	3 h battery + Aalto	141
	ESC 80	IP44	TWT8053WA	LED	3 h battery + Aalto	76
	ESC 81	IP44	TWT8153WA	LED	3 h battery + Aalto	83
	ESC 90	IP44	TWT9053WA	LED	3 h battery + Aalto	68
	ESC 4	IP44	TWT1753WA	LED	3 h battery + Aalto	123
	ESC Cube	IP20	TWS6353WA	LED	3 h battery + Aalto	135
	SAFE 6	IP44	TWT0652WA	LED	1 h battery + Aalto	224
	Linespot (recess mounting)	IP20	TWT5052WA	LED	1 h battery + Aalto	173
			TWT5053WA	LED	3 h battery + Aalto	173
	Linespot II Lowbay (surface mounting)	IP44	TWT9952WA	LED	1 h battery + Aalto	155
			TWT9953WA	LED	3 h battery + Aalto	155
	Linespot II Midbay (surface mounting)	IP44	TWT8852WA	LED	1 h battery + Aalto	161
			TWT8853WA	LED	3 h battery + Aalto	161
	Zonespot II Lowbay (surface mounting)	IP44	TWT9252WA	LED	1 h battery + Aalto	179
			TWT9253WA	LED	3 h battery + Aalto	179
	Zonespot II Midbay (surface mounting)	IP44	TWT9352WA	LED	1 h battery + Aalto	185
			TWT9353WA	LED	3 h battery + Aalto	185
	Zonespot II Lowbay (recess mounting)	IP20/ IP44	TWT0452WA	LED	1 h battery + Aalto	193
			TWT0453WA	LED	3 h battery + Aalto	193
	Linespot II Lowbay (recess mounting)	IP20/ IP44	TWT1452WA	LED	1 h battery + Aalto	167
			TWT1453WA	LED	3 h battery + Aalto	167
	Slimspot (recess mounting)	IP20	TWT9752WA	LED	1 h battery + Aalto	231
			TWT9753WA	LED	3 h battery + Aalto	231
	Solid Line/ Zone Lowbay (surface mounting)	IP65	TWT3252WA	LED	1 h battery + Aalto	199
			TWT3253WA	LED	3 h battery + Aalto	199
			TWT4252WA	LED	1 h battery + Aalto	205
			TWT4253WA	LED	3 h battery + Aalto	205
	Solid Line/ Zone Midbay (surface mounting)	IP65	TWT3652WA	LED	1 h battery + Aalto	211
			TWT3653WA	LED	3 h battery + Aalto	211
			TWT4352WA	LED	1 h battery + Aalto	217
			TWT4353WA	LED	3 h battery + Aalto	217

SELF-CONTAINED EMERGENCY & EXIT LIGHTS WITH BATTERY (AND SELF-TESTING)

Supply voltage 220-240 V AC

M = Self-contained luminaire with Lumi Test self-testing

SUPPLY
VOLTAGE:
220-240 V
AC

	Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
	Solid Exit	IP65	TWT3053WM	LED	3 h battery + M	143
	ESC 90	IP44	TWT9053WM	LED	3 h battery + M	70
	ESC 80	IP44	TWT8053WM	LED	3 h battery + M	78
	ESC 81	IP44	TWT8153WM	LED	3 h battery + M	85
	ESC 10	IP20	TW85053W	LED	3 h battery	91
			TW80253W	LED	3 h battery	96
	ESC 6L	IP44	TWT6252W	LED	1 h battery	121
	ESC 4	IP44	TWT1752W	LED	1 h battery	125
			TWT1752WS	LED	1 h battery (double insulated)	125
	ESC Cube	IP20	TWK6353WM	LED	3 h battery + M	137

	Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
	SAFE 6	IP44	TWT0652WM	LED	1 h battery + M	226
	Linespot (recess mounting)	IP20	TWT5052WM	LED	1 h battery + M	176
			TWT5053WM	LED	3 h battery + M	176
	Linespot II Lowbay (surface mounting)	IP44	TWT9952WM	LED	1 h battery + M	158
			TWT9953WM	LED	3 h battery + M	158
	Linespot II Midbay (surface mounting)	IP44	TWT8852WM	LED	1 h battery + M	164
			TWT8853WM	LED	3 h battery + M	164
	Zonespot II Lowbay (surface mounting)	IP44	TWT9252WM	LED	1 h battery + M	182
			TWT9253WM	LED	3 h battery + M	182
	Zonespot II Midbay (surface mounting)	IP44	TWT9352WM	LED	1 h battery + M	188
			TWT9353WM	LED	3 h battery + M	188
	Zonespot II Lowbay (recess mounting)	IP20/ IP44	TWT0452WM	LED	1 h battery + M	196
			TWT0453WM	LED	3 h battery + M	196
	Linespot II Lowbay (recess mounting)	IP20/ IP44	TWT1452WM	LED	1 h battery + M	170
			TWT1453WM	LED	3 h battery + M	170
	Solid Line/ Zone Lowbay (surface mounting)	IP65	TWT3252WM	LED	1 h battery + M	202
			TWT3253WM	LED	3 h battery + M	202
			TWT4252WM	LED	1 h battery + M	208
	Solid Line/ Zone Lowbay (surface mounting)	IP65	TWT4253WM	LED	3 h battery + M	208
			TWT3652WM	LED	1 h battery + M	214
			TWT3653WM	LED	3 h battery + M	214
			TWT4352WM	LED	1 h battery + M	220
	Solid Line/ Zone Midbay (surface mounting)	IP65	TWT4353WM	LED	3 h battery + M	220

24-230 V CENTRALLY SUPPLIED EMERGENCY & EXIT LIGHTS

Supply voltage: 24-230 V, 50/60 Hz AC,DC

CBS = Centrally supplied

C = Compatible with Teknoware Tapsa Control Central Battery Systems

SUPPLY
VOLTAGE:
24-230 V
AC/DC

	Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
	Solid Exit 2	IP65	TWT3171W	LED	CBS	145
	Solid Exit	IP65	TWT3071W	LED	CBS	139
	Esc 80	IP44	TWT8071W	LED	CBS	72
	Esc 90	IP44	TWT9071W	LED	CBS	65
	Esc 4	IP44	TWT1771W	LED	CBS	121
			TWT1771WS	LED	CBS	121
	Esc 6	IP44	TWT6271W	LED	CBS	117
	Esc 0,5	IP20	TW41671W	LED	CBS	127
	SAFE 6	IP44	TWT0671W	LED	CBS	223
	Linespot (recess mounting)	IP20	TWT5071W	LED	CBS	171
	Linespot II Lowbay (surface mounting)	IP44	TWT9971W	LED	CBS	153
	Linespot II Midbay (surface mounting)	IP44	TWT8871W	LED	CBS	159
	Zonespot II Lowbay (surface mounting)	IP44	TWT9271W	LED	CBS	177
	Zonespot II Midbay (surface mounting)	IP44	TWT9371W	LED	CBS	183
	Slimspot (recess mounting)	IP20	TWT9771W	LED	CBS	229
	Zonespot II Lowbay (recess mounting)	IP20	TWT0471W	LED	CBS	191
	Linespot II Lowbay (recess mounting)	IP20	TWT1471W	LED	CBS	165
	Solid Line/ Zone Lowbay (surface mounting)	IP65	TWT3271W	LED	CBS	197
			TWT4271W	LED	CBS	203
	Solid Line/ Zone Midbay (surface mounting)	IP65	TWT3671W	LED	CBS	209
			TWT4371W	LED	CBS	215

24 V CENTRALLY SUPPLIED EXIT LIGHTS

| **Supply voltage:** 24 V AC/DC, 50/60 Hz AC,DC

| **CBS** = Centrally supplied

SUPPLY
VOLTAGE:

24 V
AC/DC



Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
Esc 80	IP44	TWT8041W	LED	CBS	71
Esc 81	IP44	TWT8141W	LED	CBS	79
Esc 90	IP44	TWT9041W	LED	CBS	65
Esc 0,5	IP20	TW41641W	LED	CBS	127
Esc 10	IP20	TW80241W	LED	CBS	93
		TW85041W	LED	CBS	87
Esc 10	IP20	TW84441W	LED	CBS	97
Esc 3	IP20	TW39722	18W G13	CBS	131
		TW39723	18W G13	CBS	131
	IP44	TW49422	36W G13	CBS	131
		TW49423	36W G13	CBS	131

230 V CENTRALLY SUPPLIED EXIT LIGHTS

Supply voltage: 220-240 V, 50/60 Hz AC,DC
CBS = Centrally supplied
C = Compatible with Teknoware Tapsa Control Central Battery Systems

SUPPLY
 VOLTAGE:
 220 - 240 V
 AC/DC

ADDRESSABLE
 TAPSA
 CONTROL
 SYSTEM
 (K-MODELS)

	Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
	Silver	IP20	TWT6551WK TWT6651WK TWT6751WK TWT6851WK	LED	CBS / C	101 105 109 113
	Esc 4	IP44	TWT1751WK(S)	LED	CBS / C	121
	Esc 6L	IP44	TWT6251WK	LED	CBS / C	117
	Esc 80	IP44	TWT8051W(K)	LED	CBS / (C)	73, 74
	Esc 81	IP44	TWT8151W(K)	LED	CBS / (C)	80, 81
	Esc 90	IP44	TWT9051W(K)	LED	CBS / (C)	66
	Esc 0,5	IP20	TW41651WK	LED	CBS / C	127
	Esc 3	IP20	TW39781(K)	18W G13	CBS / (C)	131
			TW39782(K)	18W G13	CBS / (C)	131
		IP44	TW49481(K)	36W G13	CBS / (C)	131
			TW49482(K)	36W G13	CBS / (C)	131
	Esc 10	IP20	TW80251W(K)	LED	CBS / (C)	93
			TW85051W(K)	LED	CBS / (C)	87
	Esc 10	IP20	TW84451W(K)	LED	CBS / (C)	97
	Robust Exit	IP67	TWT9651W	LED	CBS	137
	Solid Exit	IP65	TWT3051WK(E)	LED	CBS/C	139
	Solid Exit 2	IP65	TWT3151WK	LED	CBS/C	145

230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Supply voltage: 220-240 V, 50/60 Hz AC,DC
CBS = Centrally supplied
C = Compatible with Teknoware Tapsa Control Central Battery Systems

SUPPLY
VOLTAGE:
220 - 240 V
AC/DC

ADDRESSABLE
TAPSA
CONTROL
SYSTEM
(K-MODELS)



Product family	IP class	Product code	Light source	Operation mode	Product catalogue page
Safe 82	IP44	TWT8251WH	LED	CBS	221
		TWT8251WKH	LED	CBS / C	221
Safe 6	IP44	TWT0651WK	LED	CBS / C	223
Linespot (recess mounting)	IP20	TWT5051WK	LED	CBS / C	171
Zonespot II Lowbay (recess mounting)	IP20	TWT0451WK	LED	CBS / C	191
Linespot II Lowbay (recess mounting)	IP20	TWT1451WK	LED	CBS / C	165
Trispot (recess mounting)	IP20	TWT7551WK	LED	CBS / (C)	227
		TWT7651WK	LED	CBS / (C)	227
Linespot II Lowbay (surface mounting)	IP44	TWT9951WK	LED	CBS / C	153
Linespot II Midbay (surface mounting)	IP44	TWT8851WK	LED	CBS / C	159
Zonespot II Lowbay (surface mounting)	IP44	TWT9251WK	LED	CBS / C	177
Zonespot II Midbay (surface mounting)	IP44	TWT9351WK	LED	CBS / C	183
Slimspot (recess mounting)	IP20	TWT9751WK	LED	CBS / C	229
Robust 86, 95	IP67	TWT8651WK	LED	CBS / C	237
		TWT9551W	LED	CBS	235
		TWT9551WK	LED	CBS/C	235
Solid Line/ Zone Lowbay (surface mounting)	IP65	TWT3251WK	LED	CBS/C	197
		TWT4251WK	LED	CBS/C	203
Solid Line/ Zone Midbay (surface mounting)	IP65	TWT3651WK	LED	CBS/C	209
		TWT4351WK	LED	CBS/C	215

ESC 90

LED EXIT LIGHT WITH A 25 M VIEWING DISTANCE,
CEILING AND WALL MOUNTING AS STANDARD



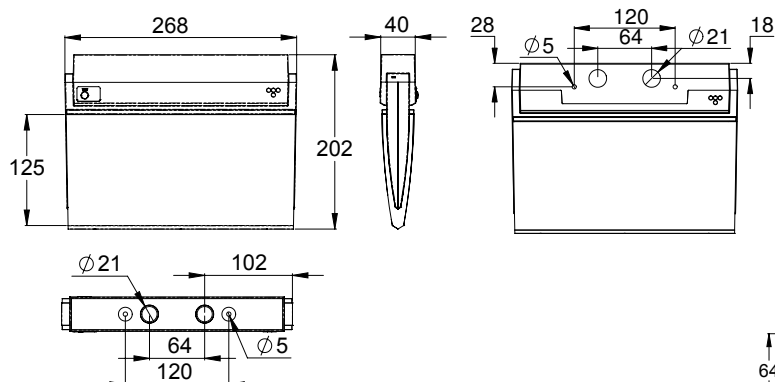
Installation video



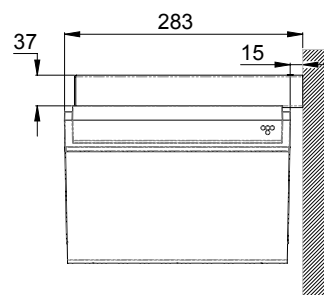
ESC 90 is an innovative LED exit light of the new generation. Cutting-edge technology is combined with modern lighting design. Thanks to high quality electronics, optics and mechanical design, the luminaire has uniformly illuminated pictograms, low power consumption, as well as a slender appearance.

Changing the pictograms is easy, the plastic sheet is just slid into its place. ESC 90 exit light is easy to install to the ceiling or to the wall. It can be used as 1 or 2 sided, both in recess and surface mounting. ESC 90 is particularly easy and fast to install thanks to a separate mounting piece, into which also the power supply is connected.

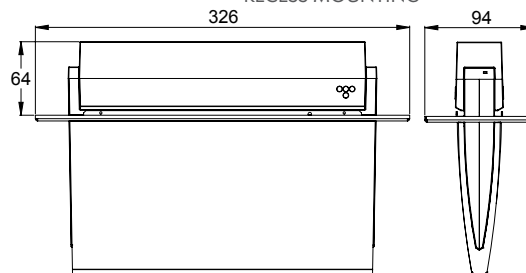
DIMENSIONS



FLAG MOUNTING



RECESS MOUNTING



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊞ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9041W	24 V 50/60 Hz AC,DC	2 VA / 2,5 W	CBS	-30...+50°C	2/3 x 2,5 mm ² -O-	0,44
Y9041W120	(individually packed incl. TWT9041W + set of pictograms PB401 + white label PB9007)					

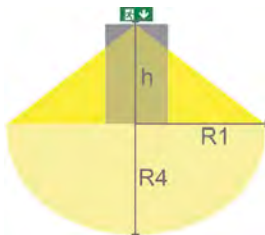
24-230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9071W	24 - 230 V 50/60 Hz AC,DC	24 V= 2 VA /1,5 W 230 V=5,5 VA /2 W	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V=3 x 2,5 mm ² -O-	0,44
Y9071W120	(individually packed incl. TWT9071W + set of pictograms PB401 + white label PB9007)					

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
 Level of measurement 0,02 m, measurement result with battery operation..



R1 distance from wall (X axis) R4 distance from wall (Y axis)

TWT9041W, TWT9071W

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,5	0,5	0,5	1	1
2,5	1,1	0,5	0,5	1	1

ESC 90

CENTRALLY SUPPLIED LUMINAIRES



230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9051W	220-240 V, 50/60 Hz AC, DC	3,9 VA / 2,9 W	CBS	-30...+50°C	2/3 x 2,5 mm ² -O-	0,44
Y9051W120	(individually packed incl. TWT9051W + set of pictograms PB401 + white label PB9007)					

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS

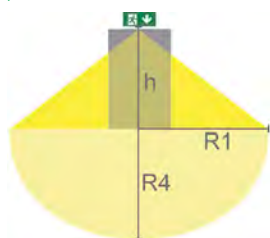


Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9051WK	220-240 V, 50/60 Hz AC, DC	6,6 VA / 4,2 W	CBS / C + IC	-30...+50°C	2/3 x 2,5 mm ² -O-	0,44
Y9051WK120	(individually packed incl. TWT9051WK + set of pictograms PB401 + white label PB9007)					

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
Level of measurement 0,02 m, measurement result with battery operation..



| R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT9051W, TWT9051WK

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,5	0,5	0,5	1	1
2,5	1,1	0,5	0,5	1	1

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9092WA	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + Aalto	-25...+35°C	2/3 x 2,5 mm ² -0-	0,60
Y9092WA120	(individually packed incl. TWS9092WA+ set of pictograms PB401 + white label PB9007)					

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9092WM	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + M	-25...+35°C	2/3 x 2,5 mm ² -0-	0,60
Y9092WM120	(individually packed incl. TWS9092WM+ set of pictograms PB401 + white label PB9007)					

ESC 90



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9053WA	220-240 V, 50/60 Hz AC	5,3 VA	3 h battery + Aalto	-5...+30°C	2/3 x 2,5 mm ² -o-	0,53
Y9053WA120	(individually packed incl. TWT9053WA+ set of pictograms PB401 + white label PB9007)					

SELF-CONTAINED EXIT LIGHTS WITH BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9053WM	220-240 V, 50/60 Hz AC	5,3 VA	3 h battery + M	-5...+30°C	2/3 x 2,5 mm ² -o-	0,53
Y9053WM120	(individually packed incl. TWT9053WM+set of pictograms PB401 + white label PB9007)					

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

PICTOGRAMS

Product code	Pictogram	Product description
PB9006		Down arrow
PB9005		Right arrow
PB9004		Left arrow
PB9010		Up arrow
PB9007		White label (1 pc supplied with the light)
PB401		Set of pictograms (PB9006 x 2, PB9005 x 1, PB9004 x 1)

Pictograms in the table are 1-sided

SPECIAL PICTOGRAMS

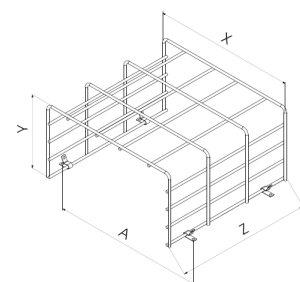
Product code	Pictogram	Product description
PB9006R		Down arrow, unobstructed escape route
PB9005R		Right arrow, unobstructed escape route
PB9004R		Left arrow, unobstructed escape route
PB9006H		Down arrow, unobstructed escape route with lift
PB9005H		Right arrow, unobstructed escape route with lift
PB9004H		Left arrow, unobstructed escape route with lift
PB9020		Fire Extinguisher

Pictograms in the table are 1-sided

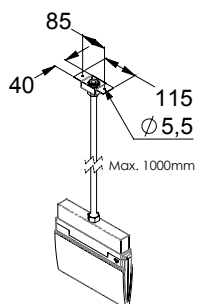
ACCESSORIES

Product code	Product description
TWT9001	Recess mounting frame for centrally supplied luminaires
TWT9001B	Recess mounting frame for self-contained luminaires
TWT9002	Flag bracket
TWT9000	Suspension bracket
TW77508B	Shock protecting covers (dims: X=220, Y=120, Z=305, A=240)

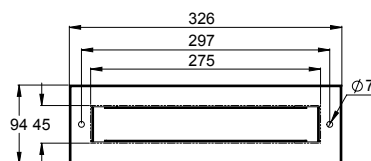
SHOCK PROTECTING COVER
TW77508B



SUSPENSION BRACKET
TWT9000

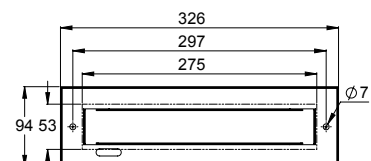


RECESS MOUNTING FRAME
TWT9001



Aperture for recess mounting of centrally supplied luminaires: 45 mm x 275 mm (TWT9001)

RECESS MOUNTING FRAME
TWT9001B



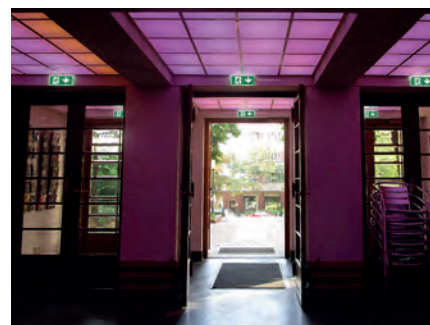
Aperture for recess mounting of self-contained luminaires: 53 mm x 275 mm (TWT9001B)

ESC 80

LED EXIT LIGHT WITH A LIGHT PLATE, 20, 26 AND 30 M VIEWING DISTANCES, CEILING AND WALL MOUNTING AS STANDARD



Installation video

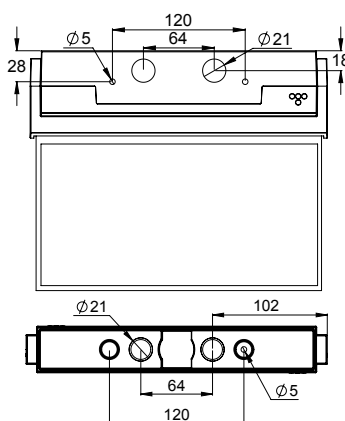
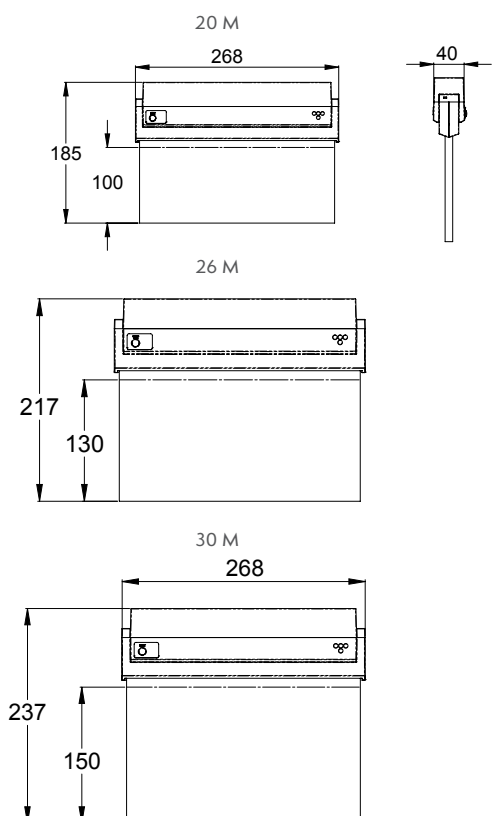


ESC 80 is a LED exit light equipped with a light plate, combining cutting edge technology combined with modern luminaire design. Thanks to Teknoware's innovative electronics and product design, the ESC 80 luminaire combines uniformly illuminated pictograms, low power consumption, as well as a slender appearance.

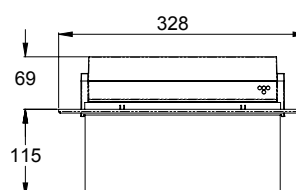
There is a selection of three different luminaire sizes. ESC 80 luminaires can be used as 1 or 2 sided, as well as recess or surface mounted.

ESC 80 is particularly easy and fast to install thanks to a separate mounting piece, into which also the power supply is connected.

DIMENSIONS



RECESS MOUNTING



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

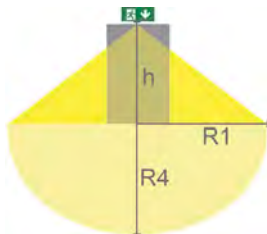
24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8041W	24 V 50/60 Hz AC,DC	2 VA / 2,5 W	CBS	-30... +50°C	2/3 x 2,5 mm² -O-	0,64
Y8041W103	(individually packed incl. TWT8041W + pictogram, 20 m, 2-sided)			→ ←		
Y8041W108	(individually packed incl. TWT8041W + pictogram, 20 m, 1-sided)			→		
Y8041W107	(individually packed incl. TWT8041W + pictogram, 20 m, 1-sided)			←		
Y8041W105	(individually packed incl. TWT8041W + pictogram, 20 m, 2-sided)			↓ ↓		
Y8041W109	(individually packed incl. TWT8041W + pictogram, 20 m, 1-sided)			↓		
Y8041W101	(individually packed incl. TWT8041W + pictogram, 20 m, 2-sided)			↑ ↑		
Y8041W102	(individually packed incl. TWT8041W + pictogram, 20 m, 1-sided)			↑		
Y8041W133	(individually packed incl. TWT8041W + pictogram, 26 m, 2-sided)			→ ←		
Y8041W138	(individually packed incl. TWT8041W + pictogram, 26 m, 1-sided)			→		
Y8041W137	(individually packed incl. TWT8041W + pictogram, 26 m, 1-sided)			←		
Y8041W135	(individually packed incl. TWT8041W + pictogram, 26 m, 2-sided)			↓ ↓		
Y8041W139	(individually packed incl. TWT8041W + pictogram, 26 m, 1-sided)			↓		
Y8041W131	(individually packed incl. TWT8041W + pictogram, 26 m, 2-sided)			↑ ↑		
Y8041W132	(individually packed incl. TWT8041W + pictogram, 26 m, 1-sided)			↑		
Y8041W143	(individually packed incl. TWT8041W + pictogram, 30 m, 2-sided)			→ ←		
Y8041W148	(individually packed incl. TWT8041W + pictogram, 30 m, 1-sided)			→		
Y8041W147	(individually packed incl. TWT8041W + pictogram, 30 m, 1-sided)			←		
Y8041W145	(individually packed incl. TWT8041W + pictogram, 30 m, 2-sided)			↓ ↓		
Y8041W149	(individually packed incl. TWT8041W + pictogram, 30 m, 1-sided)			↓		
Y8041W141	(individually packed incl. TWT8041W + pictogram, 30 m, 2-sided)			↑ ↑		
Y8041W142	(individually packed incl. TWT8041W + pictogram, 30 m, 1-sided)			↑		

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT8041W

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,1	0,5	1	1,5	2
2,5	0,7	-	-	1,5	2



CENTRALLY SUPPLIED LUMINAIRES

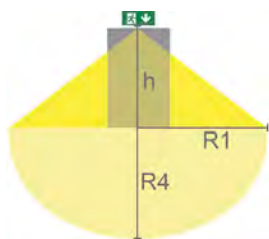
24-230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation		Weight (kg)
TWT8071W	24 - 230 V 50/60 Hz AC,DC	24 V= 2 VA /1,5 W 230 V=5,5 VA /2 W	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V=3 x 2,5 mm ² -o-	 	0,64
Y8071W103	(individually packed incl. TWT8071W + pictogram, 20 m, 2-sided)			 			
Y8071W108	(individually packed incl. TWT8071W + pictogram, 20 m, 1-sided)						
Y8071W107	(individually packed incl. TWT8071W + pictogram, 20 m, 1-sided)						
Y8071W105	(individually packed incl. TWT8071W + pictogram, 20 m, 2-sided)			 			
Y8071W109	(individually packed incl. TWT8071W + pictogram, 20 m, 1-sided)						
Y8071W101	(individually packed incl. TWT8071W + pictogram, 20 m, 2-sided)			 			
Y8071W102	(individually packed incl. TWT8071W + pictogram, 20 m, 1-sided)						
Y8071W133	(individually packed incl. TWT8071W + pictogram, 26 m, 2-sided)			 			
Y8071W138	(individually packed incl. TWT8071W + pictogram, 26 m, 1-sided)						
Y8071W137	(individually packed incl. TWT8071W + pictogram, 26 m, 1-sided)						
Y8071W135	(individually packed incl. TWT8071W + pictogram, 26 m, 2-sided)			 			
Y8071W139	(individually packed incl. TWT8071W + pictogram, 26 m, 1-sided)						
Y8071W131	(individually packed incl. TWT8071W + pictogram, 26 m, 2-sided)			 			
Y8071W132	(individually packed incl. TWT8071W + pictogram, 26 m, 1-sided)						
Y8071W143	(individually packed incl. TWT8071W + pictogram, 30 m, 2-sided)			 			
Y8071W148	(individually packed incl. TWT8071W + pictogram, 30 m, 1-sided)						
Y8071W147	(individually packed incl. TWT8071W + pictogram, 30 m, 1-sided)						
Y8071W145	(individually packed incl. TWT8071W + pictogram, 30 m, 2-sided)			 			
Y8071W149	(individually packed incl. TWT8071W + pictogram, 30 m, 1-sided)						
Y8071W141	(individually packed incl. TWT8071W + pictogram, 30 m, 2-sided)			 			
Y8071W142	(individually packed incl. TWT8071W + pictogram, 30 m, 1-sided)						

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT8071W

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,1	0,5	1	1,5	2
2,5	0,7	-	-	1,5	2

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

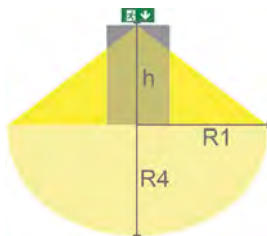
230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8051W	220-240 V, 50/60 Hz AC, DC	3,9 VA / 2,9 W	CBS	-30... +50°C	2/3 x 2,5 mm ² -0-	0,64
Y8051W103	(individually packed incl. TWT8051W + pictogram, 20 m, 2-sided)			→ ←		
Y8051W108	(individually packed incl. TWT8051W + pictogram, 20 m, 1-sided)			→		
Y8051W107	(individually packed incl. TWT8051W + pictogram, 20 m, 1-sided)			←		
Y8051W105	(individually packed incl. TWT8051W + pictogram, 20 m, 2-sided)			↓ ↓		
Y8051W109	(individually packed incl. TWT8051W + pictogram, 20 m, 1-sided)			↓		
Y8051W101	(individually packed incl. TWT8051W + pictogram, 20 m, 2-sided)			↑ ↑		
Y8051W102	(individually packed incl. TWT8051W + pictogram, 20 m, 1-sided)			↑		
Y8051W133	(individually packed incl. TWT8051W + pictogram, 26 m, 2-sided)			→ ←		
Y8051W138	(individually packed incl. TWT8051W + pictogram, 26 m, 1-sided)			→		
Y8051W137	(individually packed incl. TWT8051W + pictogram, 26 m, 1-sided)			←		
Y8051W135	(individually packed incl. TWT8051W + pictogram, 26 m, 2-sided)			↓ ↓		
Y8051W139	(individually packed incl. TWT8051W + pictogram, 26 m, 1-sided)			↓		
Y8051W131	(individually packed incl. TWT8051W + pictogram, 26 m, 2-sided)			↑ ↑		
Y8051W132	(individually packed incl. TWT8051W + pictogram, 26 m, 1-sided)			↑		
Y8051W143	(individually packed incl. TWT8051W + pictogram, 30 m, 2-sided)			→ ←		
Y8051W148	(individually packed incl. TWT8051W + pictogram, 30 m, 1-sided)			→		
Y8051W147	(individually packed incl. TWT8051W + pictogram, 30 m, 1-sided)			←		
Y8051W145	(individually packed incl. TWT8051W + pictogram, 30 m, 2-sided)			↓ ↓		
Y8051W149	(individually packed incl. TWT8051W + pictogram, 30 m, 1-sided)			↓		
Y8051W141	(individually packed incl. TWT8051W + pictogram, 30 m, 2-sided)			↑ ↑		
Y8051W142	(individually packed incl. TWT8051W + pictogram, 30 m, 1-sided)			↑		

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT8051W

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,1	0,5	1	1,5	2
2,5	0,7	-	-	1,5	2



CENTRALLY SUPPLIED LUMINAIRES



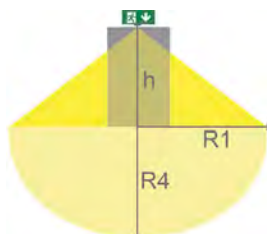
ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8051WK	220-240 V, 50/60 Hz AC, DC	6,6 VA / 4,2 W	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -0-	0,64
Y8051WK103	(individually packed incl. TWT8051WK + pictogram, 20 m, 2-sided)					
Y8051WK108	(individually packed incl. TWT8051WK + pictogram, 20 m, 1-sided)					
Y8051WK107	(individually packed incl. TWT8051WK + pictogram, 20 m, 1-sided)					
Y8051WK105	(individually packed incl. TWT8051WK + pictogram, 20 m, 2-sided)					
Y8051WK109	(individually packed incl. TWT8051WK + pictogram, 20 m, 1-sided)					
Y8051WK101	(individually packed incl. TWT8051WK + pictogram, 20 m, 2-sided)					
Y8051WK102	(individually packed incl. TWT8051WK + pictogram, 20 m, 1-sided)					
Y8051WK133	(individually packed incl. TWT8051WK + pictogram, 26 m, 2-sided)					
Y8051WK138	(individually packed incl. TWT8051WK + pictogram, 26 m, 1-sided)					
Y8051WK137	(individually packed incl. TWT8051WK + pictogram, 26 m, 1-sided)					
Y8051WK135	(individually packed incl. TWT8051WK + pictogram, 26 m, 2-sided)					
Y8051WK139	(individually packed incl. TWT8051WK + pictogram, 26 m, 1-sided)					
Y8051WK131	(individually packed incl. TWT8051WK + pictogram, 26 m, 2-sided)					
Y8051WK132	(individually packed incl. TWT8051WK + pictogram, 26 m, 1-sided)					
Y8051WK143	(individually packed incl. TWT8051WK + pictogram, 30 m, 2-sided)					
Y8051WK148	(individually packed incl. TWT8051WK + pictogram, 30 m, 1-sided)					
Y8051WK147	(individually packed incl. TWT8051WK + pictogram, 30 m, 1-sided)					
Y8051WK145	(individually packed incl. TWT8051WK + pictogram, 30 m, 2-sided)					
Y8051WK149	(individually packed incl. TWT8051WK + pictogram, 30 m, 1-sided)					
Y8051WK141	(individually packed incl. TWT8051WK + pictogram, 30 m, 2-sided)					
Y8051WK142	(individually packed incl. TWT8051WK + pictogram, 30 m, 1-sided)					

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT8051WK

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,1	0,5	1	1,5	2
2,5	0,7	-	-	1,5	2

SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8092WA	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	0,80
Y8092WA103	(individually packed incl. TWS8092WA + pictogram, 20 m, 2-sided)					
Y8092WA108	(individually packed incl. TWS8092WA + pictogram, 20 m, 1-sided)					
Y8092WA107	(individually packed incl. TWS8092WA + pictogram, 20 m, 1-sided)					
Y8092WA105	(individually packed incl. TWS8092WA + pictogram, 20 m, 2-sided)					
Y8092WA109	(individually packed incl. TWS8092WA + pictogram, 20 m, 1-sided)					
Y8092WA101	(individually packed incl. TWS8092WA + pictogram, 20 m, 2-sided)					
Y8092WA102	(individually packed incl. TWS8092WA + pictogram, 20 m, 1-sided)					
Y8092WA133	(individually packed incl. TWS8092WA + pictogram, 26 m, 2-sided)					
Y8092WA138	(individually packed incl. TWS8092WA + pictogram, 26 m, 1-sided)					
Y8092WA137	(individually packed incl. TWS8092WA + pictogram, 26 m, 1-sided)					
Y8092WA135	(individually packed incl. TWS8092WA + pictogram, 26 m, 2-sided)					
Y8092WA139	(individually packed incl. TWS8092WA + pictogram, 26 m, 1-sided)					
Y8092WA131	(individually packed incl. TWS8092WA + pictogram, 26 m, 2-sided)					
Y8092WA132	(individually packed incl. TWS8092WA + pictogram, 26 m, 1-sided)					
Y8092WA143	(individually packed incl. TWS8092WA + pictogram, 30 m, 2-sided)					
Y8092WA148	(individually packed incl. TWS8092WA + pictogram, 30 m, 1-sided)					
Y8092WA147	(individually packed incl. TWS8092WA + pictogram, 30 m, 1-sided)					
Y8092WA145	(individually packed incl. TWS8092WA + pictogram, 30 m, 2-sided)					
Y8092WA149	(individually packed incl. TWS8092WA + pictogram, 30 m, 1-sided)					
Y8092WA141	(individually packed incl. TWS8092WA + pictogram, 30 m, 2-sided)					
Y8092WA142	(individually packed incl. TWS8092WA + pictogram, 30 m, 1-sided)					

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8092WM	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	0,74
Y8092WM103	(individually packed incl. TWS8092WM + pictogram, 20 m, 2-sided)					
Y8092WM108	(individually packed incl. TWS8092WM + pictogram, 20 m, 1-sided)					
Y8092WM107	(individually packed incl. TWS8092WM + pictogram, 20 m, 1-sided)					
Y8092WM105	(individually packed incl. TWS8092WM + pictogram, 20 m, 2-sided)					
Y8092WM109	(individually packed incl. TWS8092WM + pictogram, 20 m, 1-sided)					
Y8092WM101	(individually packed incl. TWS8092WM + pictogram, 20 m, 2-sided)					
Y8092WM102	(individually packed incl. TWS8092WM + pictogram, 20 m, 1-sided)					
Y8092WM133	(individually packed incl. TWS8092WM + pictogram, 26 m, 2-sided)					
Y8092WM138	(individually packed incl. TWS8092WM + pictogram, 26 m, 1-sided)					
Y8092WM137	(individually packed incl. TWS8092WM + pictogram, 26 m, 1-sided)					
Y8092WM135	(individually packed incl. TWS8092WM + pictogram, 26 m, 2-sided)					
Y8092WM139	(individually packed incl. TWS8092WM + pictogram, 26 m, 1-sided)					
Y8092WM131	(individually packed incl. TWS8092WM + pictogram, 26 m, 2-sided)					
Y8092WM132	(individually packed incl. TWS8092WM + pictogram, 26 m, 1-sided)					
Y8092WM143	(individually packed incl. TWS8092WM + pictogram, 30 m, 2-sided)					
Y8092WM148	(individually packed incl. TWS8092WM + pictogram, 30 m, 1-sided)					
Y8092WM147	(individually packed incl. TWS8092WM + pictogram, 30 m, 1-sided)					
Y8092WM145	(individually packed incl. TWS8092WM + pictogram, 30 m, 2-sided)					
Y8092WM149	(individually packed incl. TWS8092WM + pictogram, 30 m, 1-sided)					
Y8092WM141	(individually packed incl. TWS8092WM + pictogram, 30 m, 2-sided)					
Y8092WM142	(individually packed incl. TWS8092WM + pictogram, 30 m, 1-sided)					



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8053WA	220-240 V, 50/60 Hz AC	5,3 VA	3 h battery + Aalto	-5...+30C	2/3 x 2,5 mm ² -o-	0,74
Y8053WA103	(individually packed incl. TWT8053WA+ pictogram, 20 m, 2-sided)					
Y8053WA108	(individually packed incl. TWT8053WA+ pictogram, 20 m, 1-sided)					
Y8053WA107	(individually packed incl. TWT8053WA+ pictogram, 20 m, 1-sided)					
Y8053WA105	(individually packed incl. TWT8053WA+ pictogram, 20 m, 2-sided)					
Y8053WA109	(individually packed incl. TWT8053WA+ pictogram, 20 m, 1-sided)					
Y8053WA101	(individually packed incl. TWT8053WA+ pictogram, 20 m, 2-sided)					
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Y8053WA141	(individually packed incl. TWT8053WA+ pictogram, 30 m, 2-sided)					
Y8053WA142	(individually packed incl. TWT8053WA+ pictogram, 30 m, 1-sided)					

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND SELF-TESTING



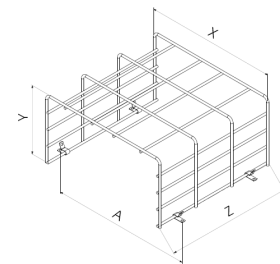
Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8053WM	220-240 V, 50/60 Hz AC	5,3 VA	3 h battery + M	-5...+30°C	2/3 x 2,5 mm ² -o-	0,74
Y8053WM103	(individually packed incl. TWT8053WM+ pictogram, 20 m, 2-sided)					
Y8053WM108	(individually packed incl. TWT8053WM+ pictogram, 20 m, 1-sided)					
Y8053WM107	(individually packed incl. TWT8053WM+ pictogram, 20 m, 1-sided)					
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Y8053WM142	(individually packed incl. TWT8053WM+ pictogram, 30 m, 1-sided)					

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

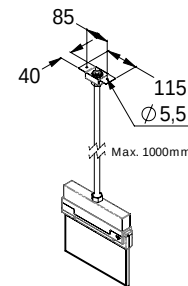
SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description	Viewing distance
PBV80202E		Down arrow 2-sided	20 m
PBV80202E3		Down arrow, 1-sided	20 m
PBV80201E		Left/right arrow, 2-sided	20 m
PBV80201E1		Right arrow, 1-sided	20 m
PBV80201E2		Left arrow, 1-sided	20 m
PBV80205E		Up arrow 2-sided	20 m
PBV80205E3		Up arrow, 1-sided	20 m
PBV80262E		Down arrow 2-sided	26 m
PBV80262E3		Down arrow, 1-sided	26 m
PBV80261E		Left/right arrow, 2-sided	26 m
PBV80261E1		Right arrow, 1-sided	26 m
PBV80261E2		Left arrow, 1-sided	26 m
PBV80265E		Up arrow 2-sided	26 m
PBV80265E3		Up arrow, 1-sided	26 m
PBV80302E		Down arrow 2-sided	30 m
PBV80302E3		Down arrow, 1-sided	30 m
PBV80301E		Left/right arrow, 2-sided	30 m
PBV80301E1		Right arrow, 1-sided	30 m
PBV80301E2		Left arrow, 1-sided	30 m
PBV80305E		Up arrow 2-sided	30 m
PBV80305E3		Up arrow, 1-sided	30 m

SHOCK PROTECTING COVER
TWT7507B



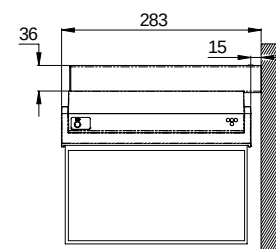
SUSPENSION BRACKET
TWT9000



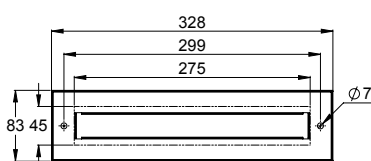
ACCESSORIES

Product code	Product description
TWT8001	Recess mounting frame for centrally supplied luminaires, (Mounting with screws)
TWT8006	Recess mounting frame for centrally supplied luminaires, (Mounting with springs)
TWT8001B	Recess mounting frame for self-contained luminaires, (Mounting with screws)
TWT8006B	Recess mounting frame for self-contained luminaires, (Mounting with springs)
TWT9002	Flag bracket
TWT9000	Suspension bracket
TWT7507B	Shock protecting cover (dims: X=320, Y=165, Z=305, A=340)

FLAG MOUNTING
WITH TWT9002 FLAG BRACKET

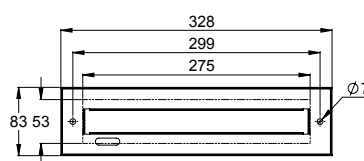


RECESS MOUNTING FRAME
TWT8001



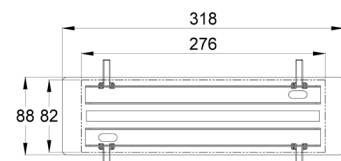
Aperture for recess mounting of centrally supplied luminaires: 45 mm x 275 mm (TWT8001)

RECESS MOUNTING FRAME
TWT8001B



Aperture for recess mounting of self-contained luminaires: 53 mm x 275 mm (TWT8001B)

RECESS MOUNTING FRAME
TWT8006/B



Aperture for recess mounting of centrally supplied luminaires: 82 mm x 276 mm (TWT8006)
Aperture for recess mounting of self-contained luminaires: 82 mm x 276 mm (TWT8006B)

LED EXIT LIGHT WITH A LIGHT PLATE, 40 M AND 60 M VIEWING DISTANCES,
CEILING AND WALL MOUNTING AS STANDARD

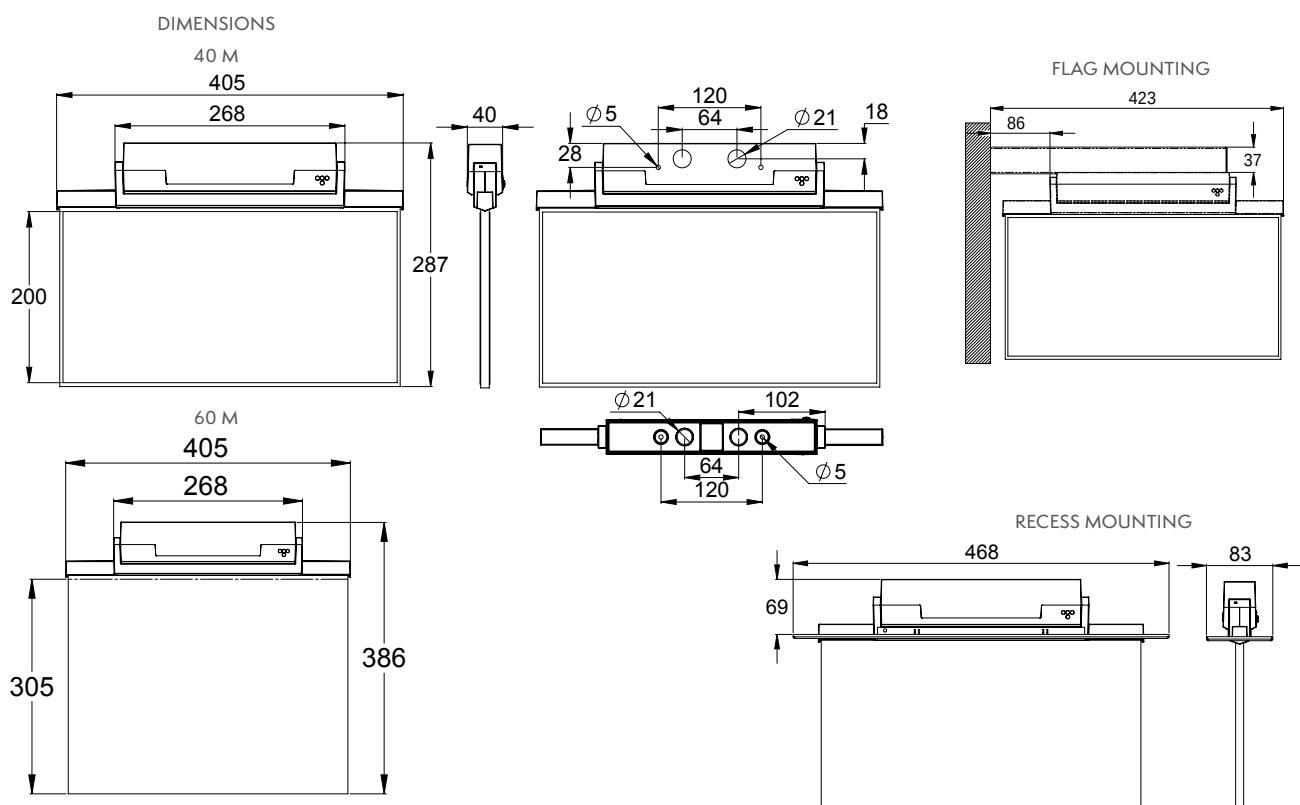


Installation video



Evenly illuminated light plates, low power consumption and slender looking luminaires are the result of Teknoware's pioneering, expertise in electronics and product design. Luminaire can be used as 1 or 2 sided, recess and surface mounted.

ESC 81 is particularly easy and fast to install thanks to a separate mounting piece, into which also the power supply is connected.



Aperture for recess mounting of centrally supplied luminaires: 45 mm x 415 mm (TWT8101)
Aperture for recess mounting of self-contained luminaires: 53 mm x 415 mm (TWT8101B)

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

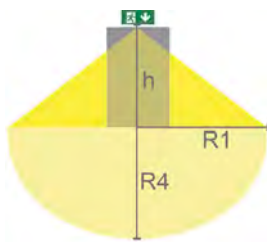
24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8141W	24 V 50/60 Hz AC,DC	3,2 VA / 3,8 W	CBS	-30... +50°C	2/3 x 2,5 mm² -O-	1,4
Y8141W153	(individually packed incl. TWT8141W + pictogram, 40 m, 2-sided)			→ ←		
Y8141W158	(individually packed incl. TWT8141W + pictogram, 40 m, 1-sided)			→		
Y8141W157	(individually packed incl. TWT8141W + pictogram, 40 m, 1-sided)			←		
Y8141W155	(individually packed incl. TWT8141W + pictogram, 40 m, 2-sided)			→ ↓		
Y8141W159	(individually packed incl. TWT8141W + pictogram, 40 m, 1-sided)			↓		
Y8141W151	(individually packed incl. TWT8141W + pictogram, 40 m, 2-sided)			→ ↑		
Y8141W152	(individually packed incl. TWT8141W + pictogram, 40 m, 1-sided)			↑		
Y8141W163	(individually packed incl. TWT8141W + pictogram, 60 m, 2-sided)			→ ←		
Y8141W168	(individually packed incl. TWT8141W + pictogram, 60 m, 1-sided)			→		
Y8141W167	(individually packed incl. TWT8141W + pictogram, 60 m, 1-sided)			←		
Y8141W165	(individually packed incl. TWT8141W + pictogram, 60 m, 2-sided)			→ ↓		
Y8141W169	(individually packed incl. TWT8141W + pictogram, 60 m, 1-sided)			↓		
Y8141W161	(individually packed incl. TWT8141W + pictogram, 60 m, 2-sided)			→ ↑		
Y8141W162	(individually packed incl. TWT8141W + pictogram, 60 m, 1-sided)			↑		

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT8141W

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,5	0,5	1	1,5	2
2,5	0,8	-	-	1,5	2

ESC 81

CENTRALLY SUPPLIED LUMINAIRES



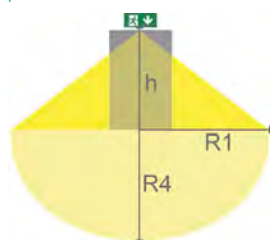
230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8151W	220-240 V, 50/60 Hz AC, DC	5,5 VA / 3,2 W	CBS	-30... +50°C	2/3 x 2,5 mm ² -O-	1,4
Y8151W153	(individually packed incl. TWT8151W + pictogram, 40 m, 2-sided)					
Y8151W158	(individually packed incl. TWT8151W + pictogram, 40 m, 1-sided)					
Y8151W157	(individually packed incl. TWT8151W + pictogram, 40 m, 1-sided)					
Y8151W155	(individually packed incl. TWT8151W + pictogram, 40 m, 2-sided)					
Y8151W159	(individually packed incl. TWT8151W + pictogram, 40 m, 1-sided)					
Y8151W151	(individually packed incl. TWT8151W + pictogram, 40 m, 2-sided)					
Y8151W152	(individually packed incl. TWT8151W + pictogram, 40 m, 1-sided)					
Y8151W163	(individually packed incl. TWT8151W + pictogram, 60 m, 2-sided)					
Y8151W168	(individually packed incl. TWT8151W + pictogram, 60 m, 1-sided)					
Y8151W167	(individually packed incl. TWT8151W + pictogram, 60 m, 1-sided)					
Y8151W165	(individually packed incl. TWT8151W + pictogram, 60 m, 2-sided)					
Y8151W169	(individually packed incl. TWT8151W + pictogram, 60 m, 1-sided)					
Y8151W161	(individually packed incl. TWT8151W + pictogram, 60 m, 2-sided)					
Y8151W162	(individually packed incl. TWT8151W + pictogram, 60 m, 1-sided)					

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT8151W

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,5	0,5	1	1,5	2
2,5	0,8	-	-	1,5	2

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

P20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS

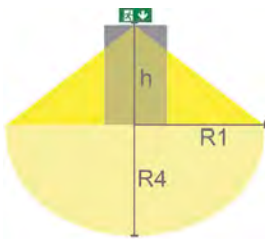


Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8151WK	220-240 V, 50/60 Hz AC, DC	6,5 VA / 4,2 W	CBS / C	-30... +50°C	2/3 x 2,5 mm ² -O-	1,4
Y8151WK153	(individually packed incl. TWT8151WK + pictogram, 40 m, 2-sided)					
Y8151WK158	(individually packed incl. TWT8151WK + pictogram, 40 m, 1-sided)					
Y8151WK157	(individually packed incl. TWT8151WK + pictogram, 40 m, 1-sided)					
Y8151WK155	(individually packed incl. TWT8151WK + pictogram, 40 m, 2-sided)					
Y8151WK159	(individually packed incl. TWT8151WK + pictogram, 40 m, 1-sided)					
Y8151WK151	(individually packed incl. TWT8151WK + pictogram, 40 m, 2-sided)					
Y8151WK152	(individually packed incl. TWT8151WK + pictogram, 40 m, 1-sided)					
Y8151WK163	(individually packed incl. TWT8151WK + pictogram, 60 m, 2-sided)					
Y8151WK168	(individually packed incl. TWT8151WK + pictogram, 60 m, 1-sided)					
Y8151WK167	(individually packed incl. TWT8151WK + pictogram, 60 m, 1-sided)					
Y8151WK165	(individually packed incl. TWT8151WK + pictogram, 60 m, 2-sided)					
Y8151WK169	(individually packed incl. TWT8151WK + pictogram, 60 m, 1-sided)					
Y8151WK161	(individually packed incl. TWT8151WK + pictogram, 60 m, 2-sided)					
Y8151WK162	(individually packed incl. TWT8151WK + pictogram, 60 m, 1-sided)					

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT8151WK

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,5	0,5	1	1,5	2
2,5	0,8	-	-	1,5	2



SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8192WA	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -O-	1,4
Y8192WA153	(individually packed incl. TWS8192WA + pictogram, 40 m, 2-sided)					
Y8192WA158	(individually packed incl. TWS8192WA + pictogram, 40 m, 1-sided)					
Y8192WA157	(individually packed incl. TWS8192WA + pictogram, 40 m, 1-sided)					
Y8192WA155	(individually packed incl. TWS8192WA + pictogram, 40 m, 2-sided)					
Y8192WA159	(individually packed incl. TWS8192WA + pictogram, 40 m, 1-sided)					
Y8192WA151	(individually packed incl. TWS8192WA + pictogram, 40 m, 2-sided)					
Y8192WA152	(individually packed incl. TWS8192WA + pictogram, 40 m, 1-sided)					
Y8192WA163	(individually packed incl. TWS8192WA + pictogram, 60 m, 2-sided)					
Y8192WA168	(individually packed incl. TWS8192WA + pictogram, 60 m, 1-sided)					
Y8192WA167	(individually packed incl. TWS8192WA + pictogram, 60 m, 1-sided)					
Y8192WA165	(individually packed incl. TWS8192WA + pictogram, 60 m, 2-sided)					
Y8192WA169	(individually packed incl. TWS8192WA + pictogram, 60 m, 1-sided)					
Y8192WA161	(individually packed incl. TWS8192WA + pictogram, 60 m, 2-sided)					
Y8192WA162	(individually packed incl. TWS8192WA + pictogram, 60 m, 1-sided)					

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8192WM	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -O-	1,4
Y8192WM153	(individually packed incl. TWS8192WM + pictogram, 40 m, 2-sided)					
Y8192WM158	(individually packed incl. TWS8192WM + pictogram, 40 m, 1-sided)					
Y8192WM157	(individually packed incl. TWS8192WM + pictogram, 40 m, 1-sided)					
Y8192WM155	(individually packed incl. TWS8192WM + pictogram, 40 m, 2-sided)					
Y8192WM159	(individually packed incl. TWS8192WM + pictogram, 40 m, 1-sided)					
Y8192WM151	(individually packed incl. TWS8192WM + pictogram, 40 m, 2-sided)					
Y8192WM152	(individually packed incl. TWS8192WM + pictogram, 40 m, 1-sided)					
Y8192WM163	(individually packed incl. TWS8192WM + pictogram, 60 m, 2-sided)					
Y8192WM168	(individually packed incl. TWS8192WM + pictogram, 60 m, 1-sided)					
Y8192WM167	(individually packed incl. TWS8192WM + pictogram, 60 m, 1-sided)					
Y8192WM165	(individually packed incl. TWS8192WM + pictogram, 60 m, 2-sided)					
Y8192WM169	(individually packed incl. TWS8192WM + pictogram, 60 m, 1-sided)					
Y8192WM161	(individually packed incl. TWS8192WM + pictogram, 60 m, 2-sided)					
Y8192WM162	(individually packed incl. TWS8192WM + pictogram, 60 m, 1-sided)					

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8153WA	220-240 V, 50/60 Hz AC	4,5 VA	3 h battery + Aalto	-5...+30°C	2/3 x 2,5 mm ² -0-	1,4
Y8153WA153	(individually packed incl. TWT8153WA+ pictogram, 40 m, 2-sided)					
Y8153WA158	(individually packed incl. TWT8153WA+ pictogram, 40 m, 1-sided)					
Y8153WA157	(individually packed incl. TWT8153WA+ pictogram, 40 m, 1-sided)					
Y8153WA155	(individually packed incl. TWT8153WA+ pictogram, 40 m, 2-sided)					
Y8153WA159	(individually packed incl. TWT8153WA+ pictogram, 40 m, 1-sided)					
Y8153WA151	(individually packed incl. TWT8153WA+ pictogram, 40 m, 2-sided)					
Y8153WA152	(individually packed incl. TWT8153WA+ pictogram, 40 m, 1-sided)					
Y8153WA163	(individually packed incl. TWT8153WA+ pictogram, 60 m, 2-sided)					
Y8153WA168	(individually packed incl. TWT8153WA+ pictogram, 60 m, 1-sided)					
Y8153WA167	(individually packed incl. TWT8153WA+ pictogram, 60 m, 1-sided)					
Y8153WA165	(individually packed incl. TWT8153WA+ pictogram, 60 m, 2-sided)					
Y8153WA169	(individually packed incl. TWT8153WA+ pictogram, 60 m, 1-sided)					
Y8153WA161	(individually packed incl. TWT8153WA+ pictogram, 60 m, 2-sided)					
Y8153WA162	(individually packed incl. TWT8153WA+ pictogram, 60 m, 1-sided)					

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8153WM	220-240 V, 50/60 Hz AC	4,5 VA	3 h battery + M	-5...+30°C	2/3 x 2,5 mm ² -0-	1,4
Y8153WM153	(individually packed incl. TWT8153WM+ pictogram, 40 m, 2-sided)					
Y8153WM158	(individually packed incl. TWT8153WM+ pictogram, 40 m, 1-sided)					
Y8153WM157	(individually packed incl. TWT8153WM+ pictogram, 40 m, 1-sided)					
Y8153WM155	(individually packed incl. TWT8153WM+ pictogram, 40 m, 2-sided)					
Y8153WM159	(individually packed incl. TWT8153WM+ pictogram, 40 m, 1-sided)					
Y8153WM151	(individually packed incl. TWT8153WM+ pictogram, 40 m, 2-sided)					
Y8153WM152	(individually packed incl. TWT8153WM+ pictogram, 40 m, 1-sided)					
Y8153WM163	(individually packed incl. TWT8153WM+ pictogram, 60 m, 2-sided)					
Y8153WM168	(individually packed incl. TWT8153WM+ pictogram, 60 m, 1-sided)					
Y8153WM167	(individually packed incl. TWT8153WM+ pictogram, 60 m, 1-sided)					
Y8153WM165	(individually packed incl. TWT8153WM+ pictogram, 60 m, 2-sided)					
Y8153WM169	(individually packed incl. TWT8153WM+ pictogram, 60 m, 1-sided)					
Y8153WM161	(individually packed incl. TWT8153WM+ pictogram, 60 m, 2-sided)					
Y8153WM162	(individually packed incl. TWT8153WM+ pictogram, 60 m, 1-sided)					



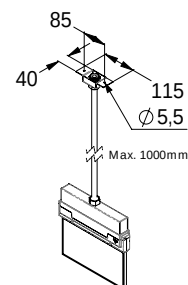
SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description	Viewing distance
PBV81402E		Down arrow 2-sided	40 m
PBV81402E3		Down arrow, 1-sided	40 m
PBV81401E		Left/right arrow, 2-sided	40 m
PBV81401E1		Right arrow, 1-sided	40 m
PBV81401E2		Left arrow, 1-sided	40 m
PBV81405E		Up arrow 2-sided	40 m
PBV81405E3		Up arrow, 1-sided	40 m
PBV81602E		Down arrow 2-sided	60 m
PBV81602E3		Down arrow, 1-sided	60 m
PBV81601E		Left/right arrow, 2-sided	60 m
PBV81601E1		Right arrow, 1-sided	60 m
PBV81601E2		Left arrow, 1-sided	60 m
PBV81605E		Up arrow 2-sided	60 m
PBV81605E3		Up arrow, 1-sided	60 m

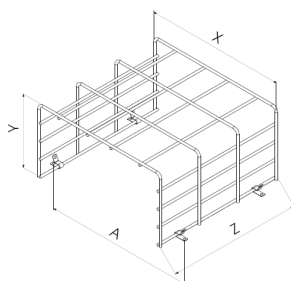
ACCESSORIES

Product code	Product description
TWT8101	Recess mounting frame for centrally supplied luminaires
TWT8101B	Recess mounting frame for self-contained luminaires
TWT8102	Flag bracket
TWT9000	Suspension bracket
TW77510B	Shock protecting cover (dims: X=420, Y=165, Z=505, A=440)

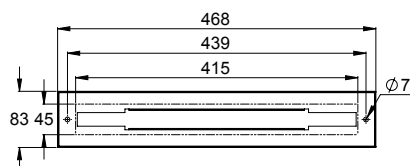
SUSPENSION BRACKET
TWT9000



SHOCK PROTECTING COVER
TW77510B

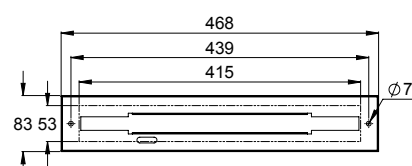


RECESS MOUNTING FRAME
TWT8101

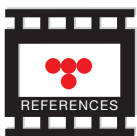


Aperture for recess mounting of centrally supplied luminaires: 45 mm x 415 mm (TWT8101)

RECESS MOUNTING FRAME
TWT8101B



Aperture for recess mounting of self-contained luminaires: 53 mm x 415 mm (TWT8101B)



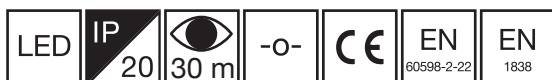
CASE XXL Department Store, Lahti, Finland

XXL Sports & Outdoor is a department store selling for example, sports, outdoor and wilderness products. Originally from Norway, the Group opened its first department store in Finland in 2014, and in Lahti October 2016.

In Lahti XXL there are ESC 81 exit lights (p. 80) and Zonespot II Midbay emergency lights (p. 184). The central battery system is 230 V, TKT65B (p. 24).

ESC 10

LED EXIT LIGHT WITH A LIGHT PLATE AND A VIEWING DISTANCE OF 30 M, CEILING, WALL, SUSPENSION OR FLAG MOUNTING WITH DIFFERENT MOUNTING BRACKETS



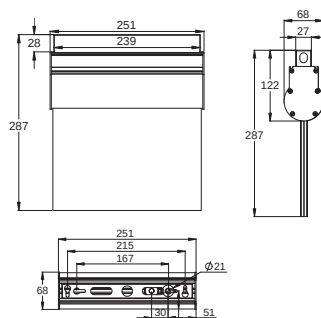
ESC 10 family of luminaires are a stylish alternative for areas, in which the luminaires are required to have a very presentable look.

TW850 / TWT85 / TWS85 is equipped with an aluminium profile body and light plate. Depending on the type of the bracket, which is supplied separately, ESC 10 is suitable for ceiling, wall, suspension or flag mounting.

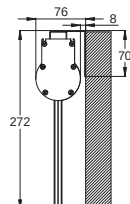
The luminaire can be used as 1 sided as well as 2 sided. Long lasting leds are used as the luminaire's light source.

DIMENSIONS

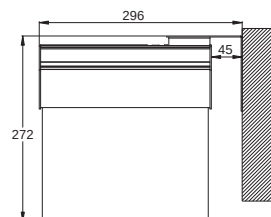
CEILING MOUNTING
TW85XXX+TW77501



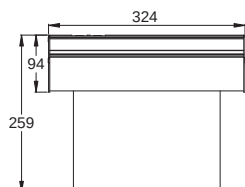
WALL MOUNTING
TW85XXX+TW77503



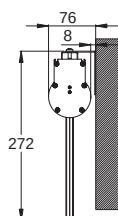
FLAG MOUNTING
TW85XXX+TW77505



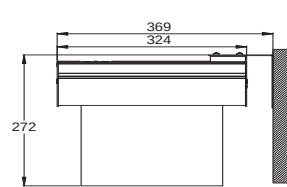
CEILING MOUNTING
TWS8592WA/M+TW77501
TWT8553WA/M+TW77501



WALL MOUNTING
TW8592WA/M+TW77503
TWT8553WA/M+TW77503



FLAG MOUNTING
TW8592WA/M+TW77505
TWT8553WA/M+TW77505



= Protection rating
 = Colour of the body
 = Viewing distance
 = LED as a light source
 = Protection class of luminaire is 1
 = Protection class of luminaire is 2
 = Protection class of luminaire is 3
 = Luminaire is suitable for through-wiring
Aalto = Aalto Control compatible (incl. Lumi Test)
M = Self-contained luminaire with Lumi test self-testing
Escap = Self-contained luminaire with 1 h super capacitor backup
C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 = compliant with the 850 glow wire test
IC = Compatible with Intelligent Controller
CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW85041W	24 V 50/60 Hz AC,DC	2,1 VA / 2,5 W	CBS	-30... +50°C	2 x 2,5 mm ² -o-	1,7

230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW85051W	220-240 V, 50/60 Hz AC,DC	8,2 VA / 3,9 W	CBS	-30... +50°C	3 x 2,5 mm ² -o-	1,7

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW85051WK	220-240 V, 50/60 Hz AC,DC	8,3 VA / 4,6 W	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o-	1,7

ESC 10

SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR



SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8592W	220-240 V, 50/60 Hz AC	10 VA	1 h Escap	-25... +35°C	3 x 2,5 mm ² -0-	2,9

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8592WA	220-240 V, 50/60 Hz AC	10 VA	1 h Escap + Aalto	-25... +35°C	3 x 2,5 mm ² -0-	2,9

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8592WM	220-240 V, 50/60 Hz AC	10 VA	1 h Escap + M	-25... +35°C	3 x 2,5 mm ² -0-	2,9

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW85053W	220-240 V, 50/60 Hz AC	9 VA	3 h battery	-5... +30°C	3 x 2,5 mm ² -o-	2,9



SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description
PBV10302E		Down arrow, 2-sided
PBV10301E		Left/right arrow, 2-sided
XW85020		White cove plate

Pictograms in the table are always 2-sided, e.g.  = right/left arrow

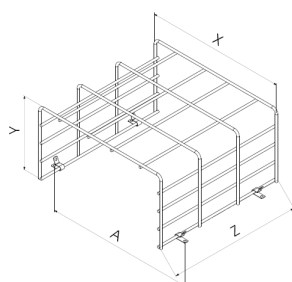
SEPARATELY ORDERED BRACKETS

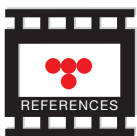
Product code	Product description
TW77501	Ceiling bracket
TW77503	Wall bracket
TW77504	Suspension bracket
TW77505	Flag bracket

ACCESSORIES

Product code	Product description
TW77507B	Shock protecting cover (dimensions: X=320, Y=165, Z=305, A=340)

SHOCK PROTECTING COVER
TW77507B





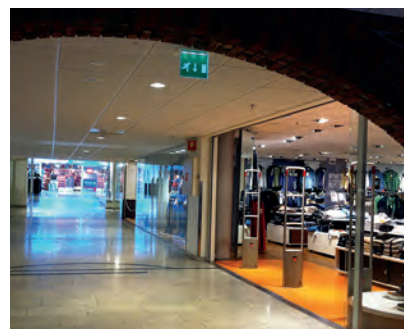
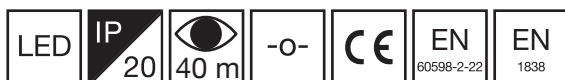
CASE Opimäki campus, Espoo, Finland

Opimäki has been taken into use in 2015, in Suurpelto, Espoo, Finland. In Opimäki, there is the English-speaking Espoo International School and a Finnish kindergarten.

Teknoware's environmentally friendly and maintenance-free ESCAP self-contained luminaires are used in Opimäki. There are for example ESC 10 exit lights (p. 88).

ESC 10

LED EXIT LIGHT WITH A LIGHT PLATE AND A VIEWING DISTANCE OF 40 M, CEILING, WALL, SUSPENSION OR FLAG MOUNTING WITH DIFFERENT MOUNTING BRACKETS



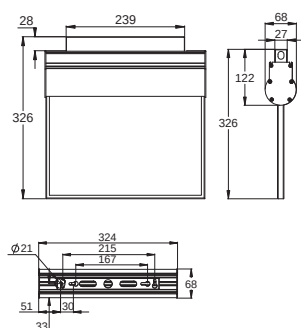
ESC 10 family of luminaires are a stylish alternative for areas, in which the luminaires are required to have a very presentable look.

TW802 is a LED exit light, equipped with a light plate and a aluminium profile body. It is suitable for ceiling, wall, suspension or flag mounting. The required mounting bracket is delivered separately.

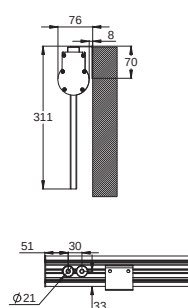
The luminaire can be used as 1 sided as well as 2 sided.

DIMENSIONS

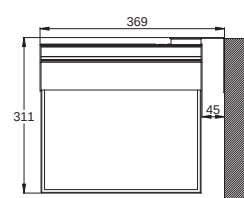
CEILING MOUNTING
TW802XX+TW77501



WALL MOUNTING
TW802XX+TW77503



FLAG MOUNTING
TW802XX+TW77505



= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

CENTRALLY SUPPLIED LUMINAIRES

24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW80241W	24 V 50/60 Hz AC,DC	2 VA / 2,5 W	CBS	-30... +50°C	2 x 2,5 mm ² -o-	1,7

230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW80251W	220-240 V, 50/60 Hz AC,DC	9,4 VA / 4,7 W	CBS	-30... +50°C	3 x 2,5 mm ² -o-	1,7

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW80251WK	220-240 V, 50/60 Hz AC,DC	8,2 VA / 4,6 W	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o-	1,7

ESC 10

SELF-CONTAINED LUMINAIRES WITH BATTERY



SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW80253W	220-240 V, 50/60 Hz AC	9 VA	3 h battery	-5... +30°C	3 x 2,5 mm ² -o- 	2,9

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SEPARATELY ORDERED PICTOGRAMS (40 m)

Product code	Pictogram	Product description
PBV10402E		Down arrow, 2-sided
PBV10401E		Left/right arrow, 2-sided
XW80220		White cove plate

Pictograms in the table are always 2-sided, e.g.  = right/left arrow

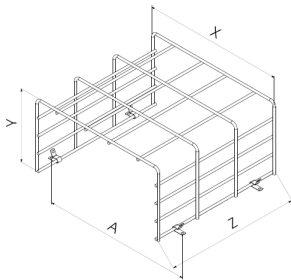
SEPARATELY ORDERED BRACKETS

Product code	Product description
TW77501	Ceiling bracket
TW77503	Wall bracket
TW77504	Suspension bracket
TW77505	Flag bracket

ACCESSORIES

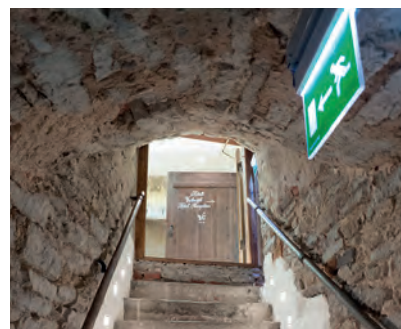
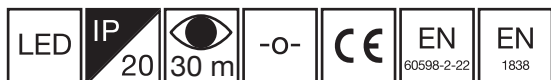
Product code	Product description
TW77510B	Shock protecting cover (dimensions: X=420, Y=165, Z=505, A=440)

SHOCK PROTECTING COVER
TW77510B



ESC 10

EXIT LIGHT WITH A LIGHT PLATE AND WITH A VIEWING DISTANCE OF 30 M,
FOR WALL MOUNTING

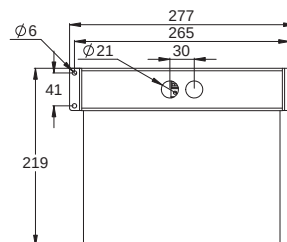
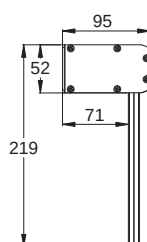
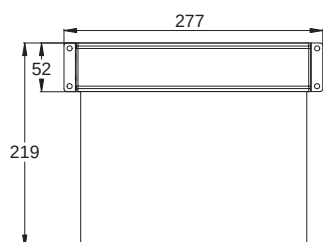


TW844 is a stylish light plate LED exit light with aluminium profile body, for wall mounting.

The luminaire can be used 1 sided as well as 2 sided. Long lasting leds are used as the luminaire's light source.

The pictogram of the luminaire is screen printed on the inside surface of the light plate.

DIMENSIONS



= Protection class of luminaire is 1
 = Protection class of luminaire is 2
 = Protection class of luminaire is 3
 = Luminaire is suitable for through-wiring
 = Protection rating
 = Colour of the body
 = Viewing distance
 = LED as a light source
Aalto = Aalto Control compatible (incl. Lumi Test)
M = Self-contained luminaire with Lumi test self-testing
Escap = Self-contained luminaire with 1 h super capacitor backup
C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 = compliant with the 850 glow wire test
IC = Compatible with Intelligent Controller
CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW84441W	24 V 50/60 Hz AC,DC	2 VA / 2,5 W	CBS	-30... +50°C	2 x 2,5 mm ² -o-	1,2

230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW84451W	220-240 V, 50/60 Hz AC,DC	8,2 VA / 3,9 W	CBS	-30... +50°C	3 x 2,5 mm ² -o-	1,2

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW84451WK	220-240 V, 50/60 Hz AC,DC	8,3 VA / 4,6 W	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o-	1,2



SEPARATELY ORDERED PICTOGRAMS (30 m)

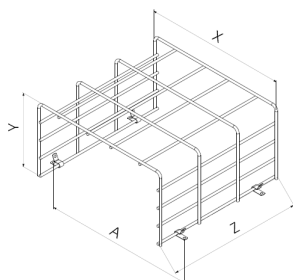
Product code	Pictogram	Product description
PBV10302E		Down arrow, 2-sided
PBV10301E		Left/right arrow, 2-sided
PB026B		White label

Pictograms in the table are always 2-sided, e.g. = right/left arrow

ACCESSORIES

Product code	Product description
TW77507B	Shock protecting cover (dimensions: X=320, Y=165, Z=305, A=340)

SHOCK PROTECTING COVER
TW77507B





CASE Meriton Garden Hotel, restaurant Trofé, Tallinn, Estonia

Meriton Garden hotel's Trofé restaurant's menu is largely inspired by the Nordic food culture.

Both the hotel and the restaurant have Teknoware's self-contained exit and emergency lights with battery.

SILVER

LED EXIT LIGHT WITH A LIGHT PLATE AND A VIEWING DISTANCE OF 30 M,
CEILING SURFACE MOUNTED AND SUSPENSION MOUNTED MODELS



CEILING MOUNTING



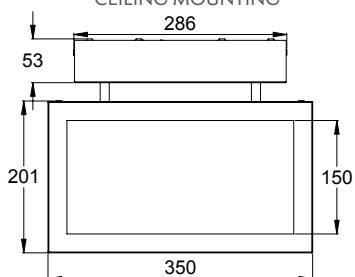
SUSPENSION MOUNTING



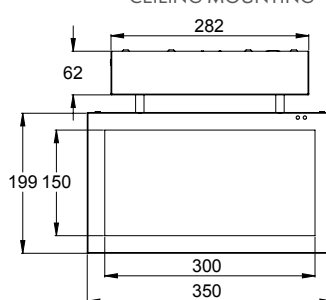
Teknoware's Silver luminaires are LED exit lights with a metal body. They are suitable for aesthetically demanding environments.

The 2-sided light plate of the Silver luminaires is silk screen printed. Its body is made from bent sheet steel.

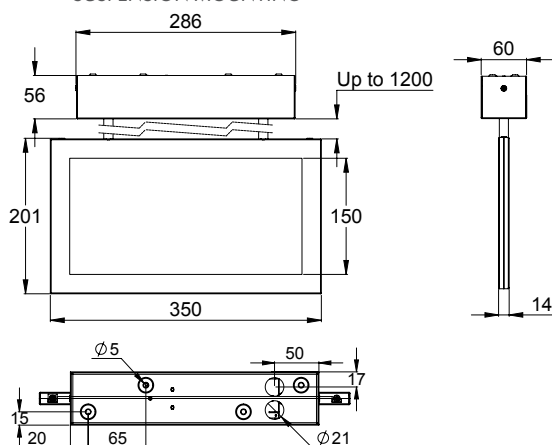
DIMENSIONS
CENTRALLY SUPPLIED LUMINAIRES
CEILING MOUNTING



SELF-CONTAINED LUMINAIRES
CEILING MOUNTING



SUSPENSION MOUNTING



= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

CENTRALLY SUPPLIED LUMINAIRES



ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWT6551WK	220-240 V, 50/60 Hz AC, DC	10,4 VA / 6,5 W	CBS / C	-30... +50°C	3 x 2,5 mm ² -o-	1,9	Ceiling mounting (surface mounting)
Y6551WK145	(individually packed incl. TWT6551WK+ pictogram, 30 m, 2-sided)						
Y6551WK143	(individually packed incl. TWT6551WK+ pictogram, 30 m, 2-sided)						
TWT6551WKL	220-240 V, 50/60 Hz AC, DC	10,4 VA / 6,5 W	CBS / C	-30... +50°C	3 x 2,5 mm ² -o-	2,0	Suspension mounting
Y6551WKL145	(individually packed incl. TWT6551WKL+ pictogram, 30 m, 2-sided)						
Y6551WKL143	(individually packed incl. TWT6551WKL+ pictogram, 30 m, 2-sided)						

SILVER



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6592WA	220-240 V, 50/60 Hz AC	7,6 VA	1 h Escap + Aalto	-25...+35°C	3 x 2,5 mm ² -o-	2,8	Ceiling mounting (surface mounting)
Y6592WA145	(individually packed incl. TWS6592WA+ pictogram, 30 m, 2-sided)						
Y6592WA143	(individually packed incl. TWS6592WA+ pictogram, 30 m, 2-sided)						

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6592WM	220-240 V, 50/60 Hz AC	7,6 VA	1 h Escap + M	-25...+35°C	3 x 2,5 mm ² -o-	2,8	Ceiling mounting (surface mounting)
Y6592WM145	(individually packed incl. TWS6592WM+ pictogram, 30 m, 2-sided)						
Y6592WM143	(individually packed incl. TWS6592WM+ pictogram, 30 m, 2-sided)						

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

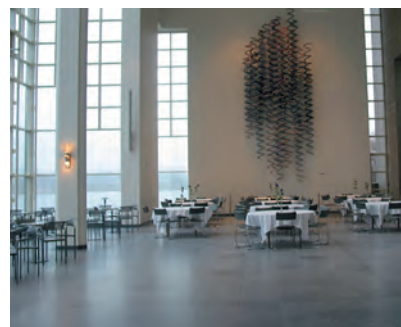
SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description
PBV3002E		Down arrow, 2-sided
PBV3003E		Left/right arrow, 2-sided
PBV3005E		Up arrow, 2-sided
XWT7000		Cover plate

Pictograms in the table are always 2-sided, e.g. = right/left arrow

SILVER

LED EXIT LIGHT WITH A LIGHT PLATE AND A VIEWING DISTANCE OF 30 M, FOR FLAG MOUNTING

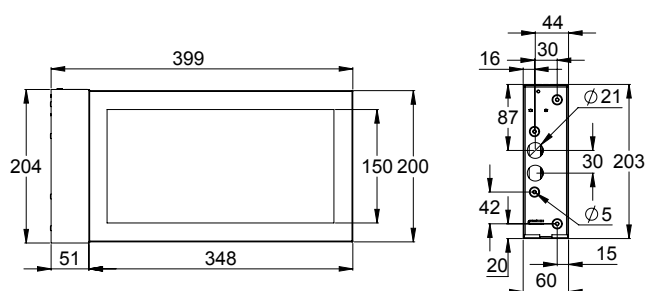


Teknoware's Silver LED exit lights have a metal body and are suitable for aesthetically demanding environments.

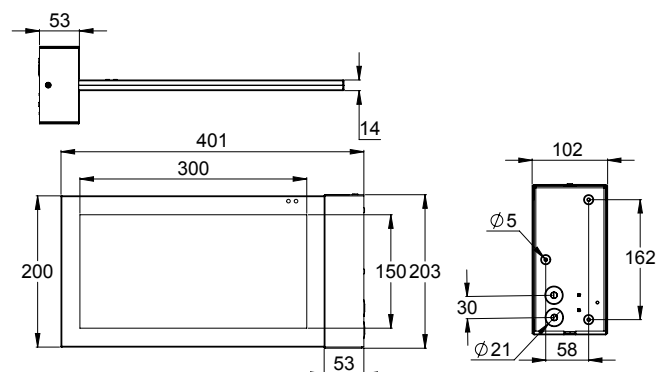
The 2-sided light plate of the Silver luminaires is silk screen printed and its body is made from bent sheet steel.

DIMENSIONS

CENTRALLY SUPPLIED LUMINAIRES



SELF-CONTAINED LUMINAIRES



= Protection class of luminaire is 1
 = Protection class of luminaire is 2
 = Protection class of luminaire is 3
 = Luminaire is suitable for through-wiring
 = Protection rating
 = Colour of the body
 = Viewing distance
 = LED as a light source
Aalto = Aalto Control compatible (incl. Lumi Test)
M = Self-contained luminaire with Lumi test self-testing
Escap = Self-contained luminaire with 1 h super capacitor backup
C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 = compliant with the 850 glow wire test
IC = Compatible with Intelligent Controller
CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWT6651WK	220-240 V, 50/60 Hz AC, DC	10,4 VA / 6,5 W	CBS / C	-30... +50°C	3 x 2,5 mm ² -o-	1,7	Flag mounting
Y6651WK145	(individually packed incl. TWT6651WK + pictogram, 30 m, 2-sided)						
Y6651WK943	(individually packed incl. TWT6651WK + pictogram, 30 m, 2-sided, arrow away from the wall)						
Y6651WK643	(individually packed incl. TWT6651WK + pictogram, 30 m, 2-sided, arrow towards wall)						



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6692WA	220-240 V, 50/60 Hz AC, DC	7,6 VA / 6,4 W	1 h Escap + Aalto	-25... +35°C	3 x 2,5 mm ² -O-	1,7	Flag mounting
Y6692WA145	(individually packed incl. TWS6692WA + pictogram, 30 m, 2-sided)						
Y6692WA943	(individually packed incl. TWS6692WA + pictogram, 30 m, 2-sided, arrow away from the wall)						
Y6692WA643	(individually packed incl. TWS6692WA + pictogram, 30 m, 2-sided, arrow towards wall)						

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6692WM	220-240 V, 50/60 Hz AC, DC	7,6 VA / 6,4 W	1 h Escap + M	-25... +35°C	3 x 2,5 mm ² -O-	1,7	Flag mounting
Y6692WM145	(individually packed incl. TWS6692WM + pictogram, 30 m, 2-sided)						
Y6692WM943	(individually packed incl. TWS6692WM + pictogram, 30 m, 2-sided, arrow away from the wall)						
Y6692WM643	(individually packed incl. TWS6692WM + pictogram, 30 m, 2-sided, arrow towards wall)						

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description
PBV3002E		Down arrow, 2-sided
PBV3003E		Left/right arrow, 2-sided
PBV3005E		Up arrow, 2-sided
XWT7000		Cover plate

Pictograms in the table are always 2-sided, e.g. = right/left arrow

SILVER

LED EXIT LIGHT WITH A LIGHT PLATE AND A VIEWING DISTANCE OF 30 M,
FOR WALL MOUNTING

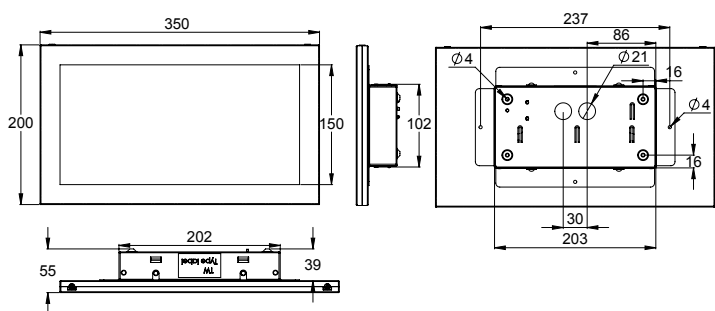


Teknoware's Silver LED exit lights have a metal body and are suitable for aesthetically demanding environments.

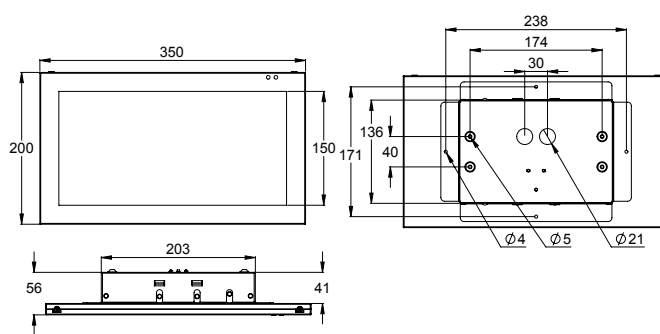
The 1-sided light plate pictogram of the wall mounted Silver luminaire is silk screen printed and its frame is made from bent sheet steel.

DIMENSIONS

CENTRALLY SUPPLIED LUMINAIRES



SELF-CONTAINED LUMINAIRES



= Protection class of luminaire is 1
 = Protection class of luminaire is 2
 = Protection class of luminaire is 3
 = Luminaire is suitable for through-wiring
 = Protection rating
 = Colour of the body
 = Viewing distance
 = LED as a light source
Aalto = Aalto Control compatible (incl. Lumi Test)
M = Self-contained luminaire with Lumi test self-testing
Escap = Self-contained luminaire with 1 h super capacitor backup
C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 = compliant with the 850 glow wire test
IC = Compatible with Intelligent Controller
CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES



ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWT6751WK	220-240 V, 50/60 Hz AC, DC	10,4 VA / 6,5 W	CBS / C	-30... +50°C	3 x 2,5 mm ² -o-	1,8	Wall mounting, either surface or semi-recessed mounting
Y6751WK149	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						
Y6751WK148	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						
Y6751WK147	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6792WA	220-240 V, 50/60 Hz AC,DC	7,6 VA / 6,4 W	1 h Escap + Aalto	-25... +35°C	3 x 2,5 mm ² -o-	2,0	Wall mounting, either surface or semi-recessed mounting
Y6792WA149	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						
Y6792WA148	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						
Y6792WA147	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6792WM	220-240 V, 50/60 Hz AC,DC	7,6 VA / 6,4 W	1 h Escap + M	-25... +35°C	3 x 2,5 mm ² -o-	2,0	Wall mounting, either surface or semi-recessed mounting
Y6792WM149	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						
Y6792WM148	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						
Y6792WM147	(individually packed incl. TWT6751WK + pictogram, 30 m, 1-sided)						

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

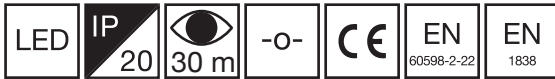
SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description
PBV3002E		Down arrow, 1-sided
PBV3003E		Left / right arrow, 1-sided
PBV3005E		Up arrow, 1-sided

Pictograms in the table are 1-sided.

SILVER

LED EXIT LIGHT WITH A LIGHT PLATE AND A VIEWING DISTANCE OF 30 M,
FOR CEILING RECESS MOUNTING

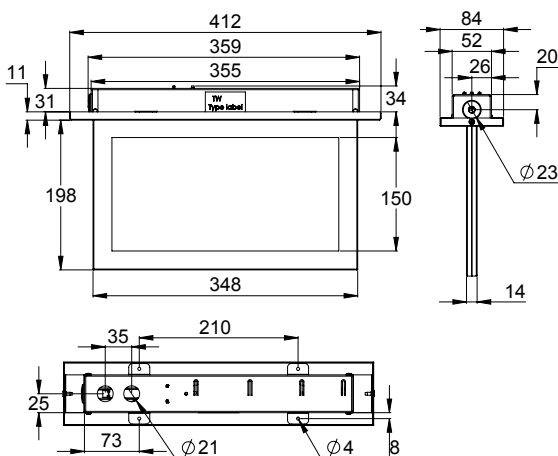


Teknoware's Silver LED exit lights have a metal body and are suitable for aesthetically demanding environments.

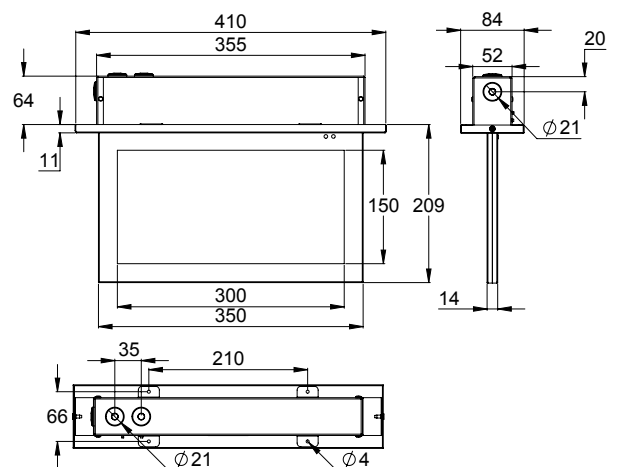
The 2-sided light plate of the recess-mounted Silver luminaire is silk screen printed and has a frame of bent sheet steel.

DIMENSIONS

CENTRALLY SUPPLIED LUMINAIRES



SELF-CONTAINED LUMINAIRES



= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

CENTRALLY SUPPLIED LUMINAIRES

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWT6851WK	220-240 V, 50/60 Hz AC, DC	10,4 VA / 6,5 W	CBS / C	-30...+50°C	3 x 2,5 mm ² -o-	2,3	Recess mounting
Y6851WK145	(individually packed incl. TWT6851WK+ pictogram, 30 m, 2-sided)						
Y6851WK143	(individually packed incl. TWT6851WK+ pictogram, 30 m, 2-sided)						

SILVER



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6892WA	220-240 V, 50/60 Hz AC	7,6 VA	1 h Escap + Aalto	-25... +35°C	3 x 2,5 mm ² -o-	2,8	Recess mounting
Y6892WA145	(individually packed incl. TWS6892WA+ pictogram, 30 m, 2-sided)						
Y6892WA143	(individually packed incl. TWS6892WA+ pictogram, 30 m, 2-sided)						

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)	Installation
TWS6892WM	220-240 V, 50/60 Hz AC	7,6 VA	1 h Escap + M	-25... +35°C	3 x 2,5 mm ² -o-	2,8	Recess mounting
Y6892WM145	(individually packed incl. TWS6892WM+ pictogram, 30 m, 2-sided)						
Y6892WM143	(individually packed incl. TWS6892WM+ pictogram, 30 m, 2-sided)						

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description
PBV3002E		Down arrow, 2-sided
PBV3003E		Left/right arrow, 2-sided
PBV3005E		Up arrow, 2-sided
XWT7000		Cover plate

Pictograms in the table are always 2-sided, e.g. = right/left arrow

ESC 6L

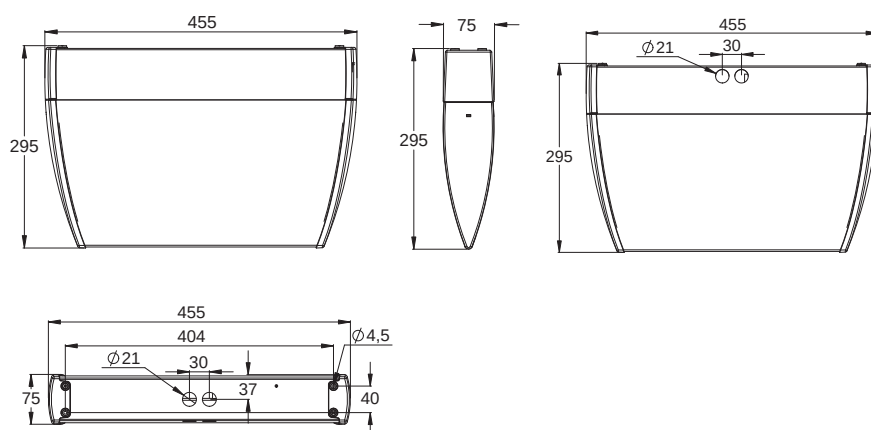
LED EXIT LIGHT WITH A VIEWING DISTANCE OF 40 M,
CEILING AND WALL MOUNTING AS STANDARD



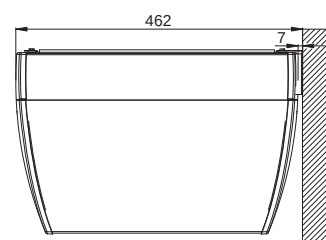
ESC 6L is a LED exit light with a plastic-/ metal body. Splash proof and having a 40 m viewing distance, the luminaire provides a solution for example for exit lights in parking halls. It is also suitable for other damp locations.

ESC 6L is suitable for ceiling, wall, suspension and flag mounting. It can be used as 1 and 2 sided.

DIMENSIONS
CEILING MOUNTING



FLAG MOUNTING
XWT6213B



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT6271W	24-230 V, 50/60 Hz AC,DC	24 V= 7,3 VA / 4,6 W 230 V= 14,6 VA / 5 W	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	1,6

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS

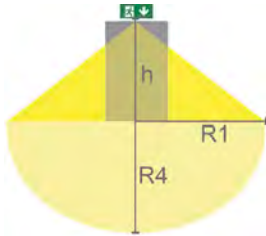


Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT6251WK	220-240 V, 50/60 Hz AC,DC	8,3 VA / 4,6 W	CBS / C+ IC	-30... +50°C	3 x 2,5 mm ² -o-	1,6

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT6271W, TWT6251WK

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,5	1	1	1,5	1,5

ESC 6L



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS6292WA	220-240 V, 50/60 Hz AC	8,2 VA	1 h Escap + Aalto	-25... +35°C	3 x 2,5 mm ² -O-	3,0

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS6292WM	220-240 V, 50/60 Hz AC	7,6 VA	1 h Escap + M	-25... +35°C	3 x 2,5 mm ² -O-	3,0

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 °C = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH 1 H BATTERY

850 °C

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT6252W	220-240 V, 50/60 Hz AC	18 VA	1 h battery	-5...+30°C	3 x 2,5 mm ² -o- ⊕	3,0

SEPARATELY ORDERED PICTOGRAMS

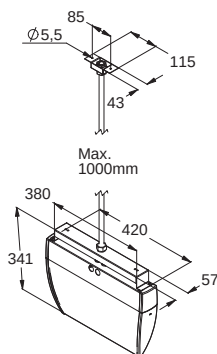
Product code	Pictogram	Product description
PB171BE		Down arrow
PB168BE		Right arrow
PB158BE		Left arrow
PB027B		White label

Pictograms in the table are 1-sided

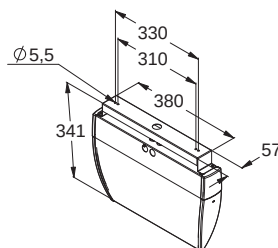
ACCESSORIES

Product code	Product description
TWT6200B	Suspension bracket (white RAL9003), TWT62xx
XWT6217B	Suspension bracket for cable / chain (white RAL9003)
XWT6213B	Flag bracket (white RAL9003)
TW77510B	Shock protecting cover (dimensions: X=420, Y=165, Z=505, A=440)

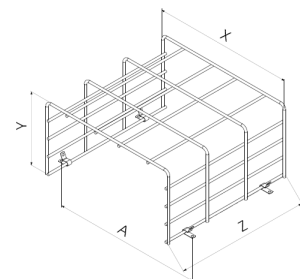
SUSPENSION BRACKET
TWT6200B



SUSPENSION BRACKET
XWT6217B



SHOCK PROTECTING COVER
TW77510B



ESC 4

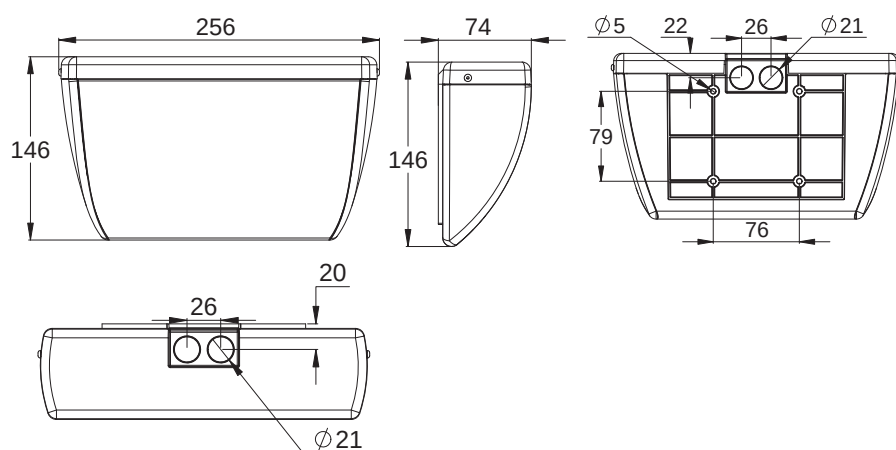
LED EXIT LIGHT WITH VIEWING DISTANCE OF 24 M,
CEILING AND WALL MOUNTING AS STANDARD



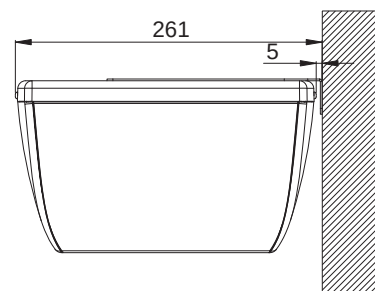
Teknoware's ESC 4 is a compact-sized, plastic bodied LED exit light. It can be mounted to the ceiling and wall. ESC 4 uses long lasting leds as its light source.

ESC 4 family of luminaires are also suitable for damp spaces, because they are splash proof.

DIMENSIONS



FLAG MOUNTING



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 P₂₀ = Protection rating
 R₉₀ = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1771W	24-230 V, 50/60 Hz AC,DC	24 V= 4 VA / 2,5 W 230 V= 9,2 VA / 2,9 W	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	0,5
Y1771W140	(individually packed incl. TWT1771W + set of pictograms: pictograms PB040E, PB042E, PB041E)					
TWT1771WS	24-230 V, 50/60 Hz AC,DC	24 V= 4 VA / 2,5 W 230 V= 9,2 VA / 2,9 W	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	0,5
Y1771WS140	(individually packed incl. TWT1771WS + set of pictograms: pictograms PB040E, PB042E, PB041E)					

*1 WS/WKS models are double-insulated

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



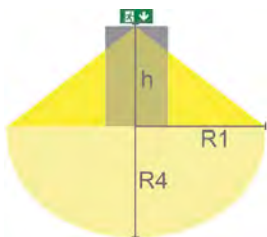
Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1751WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	CBS / C	-30... +50°C	3 x 2,5 mm ² -o-	0,5
Y1751WK140	(individually packed incl. TWT1751WK + set of pictograms: pictograms PB040E, PB042E, PB041E)					
TWT1751WKS	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	CBS / C	-30... +50°C	2/3 x 2,5 mm ² -o-	0,5
Y1751WKS140	(individually packed incl. TWT1751WKS + set of pictograms: pictograms PB040E, PB042E, PB041E)					

*1 WS/WKS models are double-insulated

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

| Tables of 1 lux and 0,5 lux, under the Exit Light.
 | Level of measurement 0,02 m, measurement result with battery operation.



| R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT1771W, TWT1771WS, TWT1751WK, TWT1751WKS

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1,5	1	1	1,5	1,5
2,5	1	-	-	1,5	1,5

ESC 4

SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR



SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS1792W	220-240 V, 50/60 Hz AC	10 VA	1 h Escap	-25...+35°C	3 x 2,5 mm ² -0-	0,8
Y1792W140	(individually packed incl. TWS1792W + set of pictograms: pictograms PB040E, PB042E, PB041E)					

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS1792WA	220-240 V, 50/60 Hz AC	10 VA	1 h Escap + Aalto	-25...+35°C	3 x 2,5 mm ² -0-	0,8
Y1792WA140	(individually packed incl. TWS1792WA + set of pictograms: pictograms PB040E, PB042E, PB041E)					

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS1792WM	220-240 V, 50/60 Hz AC	10 VA	1 h Escap + M	-25...+35°C	3 x 2,5 mm ² -0-	0,8
Y1792WM140	(individually packed incl. TWS1792WM + set of pictograms: pictograms PB040E, PB042E, PB041E)					

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1753WA	220-240 V, 50/60 Hz AC	9 VA	3 h battery + Aalto	-5...+30°C	3 x 2,5 mm ² -o-	0,8
Y1753WA140	(individually packed incl. TWS1753WA + set of pictograms: pictograms PB040E, PB042E, PB041E)					

SELF-CONTAINED EXIT LIGHTS WITH 1 H BATTERY



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1752W	220-240 V, 50/60 Hz AC	9 VA	1 h battery	-5...+30°C	3 x 2,5 mm ² -o-	0,8
TWT1752WS	220-240 V, 50/60 Hz AC	9 VA	1 h battery	-5...+30°C	2/3 x 2,5 mm ² -o-	0,8

*1) WS/WKS models are double-insulated



SEPARATELY ORDERED PICTOGRAMS

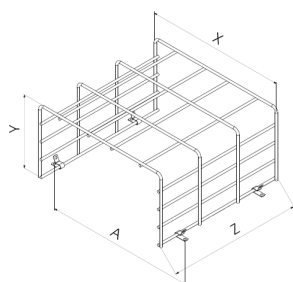
Product code	Pictogram	Product description
PB040E		Down arrow
PB042E		Right arrow
PB041E		Left arrow
PB040S		Up arrow

Pictograms in the table are 1-sided

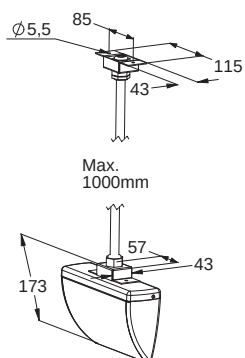
ACCESSORIES

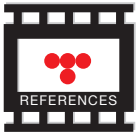
Product code	Product description
XWT1700B	Flag bracket
TW77504C	Suspension bracket (white) with 1 m shaft $\varnothing$ 16 mm
TW77504D	Suspension bracket (white) without shaft
XWT1702B	Back plate for TWT17xx
TW77508B	Shock protecting cover (dimensions: X=220, Y=120, Z=305, A=240)

SHOCK PROTECTING COVER
TW77508B



SUSPENSION BRACKET
TW77504C





CASE Päijät-Häme Central Hospital, Lahti, Finland

Päijät-Häme Central Hospital in Lahti is Finland's second largest Hospital and the seventh largest specialized medical care provider. During one year approximately 120,000 people visit the hospital.

The Central Hospital has Teknoware's addressable central battery system, ESC 90 (p. 66) and ESC 4 (p. 122) exit lights are being used in the hospital.

ESC 0,5

LED EXIT LIGHT WITH A VIEWING DISTANCE OF 20 M,
WALL MOUNTING AS STANDARD

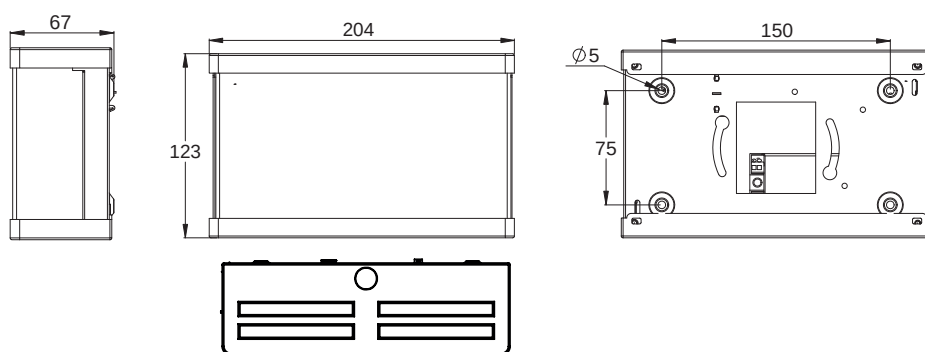


HEIGHT ONLY 123 MM

ESC 0,5 is a LED exit light for wall mounting. It has a simple design and a metal/plastic body.

The compact luminaire is suitable for areas where vertical space is limited. Long lasting leds are used as the light source of the luminaire.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW41641W	24 V 50/60 Hz AC,DC	2 VA / 2,5 W	CBS	-30... +50°C	2 x 2,5 mm ² -o-	0,8
Y41641W100	(individually packed incl. TW41641W + set of pictograms: pictograms PB4171BE, PB4162BE, PB4161BE)					

24-230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW41671W	24-230 V, 50/60 Hz AC,DC	24 V=7,5 VA / 4 W 230 V=11 VA / 4 W	CBS	-30... +50°C	24 V=2 x 2,5 mm ² 230 V=3 x 2,5 mm ² -o-	0,8
Y41671W100	(individually packed incl. TW41671W + set of pictograms: pictograms PB4171BE, PB4162BE, PB4161BE)					

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS

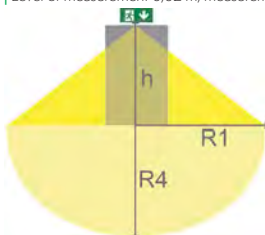


Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW41651WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o-	0,8
Y41651WK100	(individually packed incl. TW41651WK + set of pictograms: pictograms PB4171BE, PB4162BE, PB4161BE)					

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TW41641W, TW41671W, TW41651WK

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	1	-	-	1	1



SEPARATELY ORDERED PICTOGRAMS

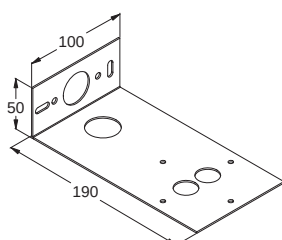
Product code	Pictogram	Product description
PB4171BE		Down arrow
PB4162BE		Right arrow
PB4161BE		Left arrow

Pictograms in the table are 1-sided

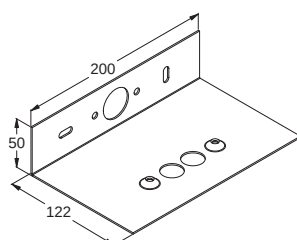
ACCESSORIES

Product code	Product description
TW30520	Flag bracket
TW41620	Ceiling bracket for two lights
TW41630	Ceiling bracket for one light
TW77508B	Shock protecting cover (dimensions: X=220, Y=120 Z=305, A=240)

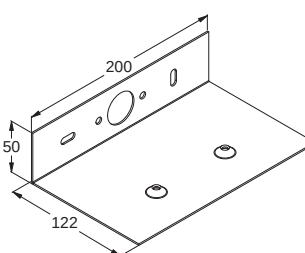
FLAG BRACKET
TW30520



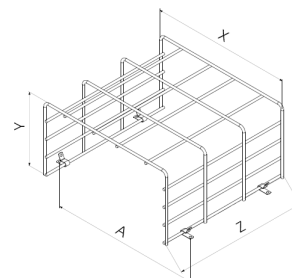
CEILING BRACKET
TW41620

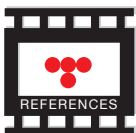


CEILING BRACKET
TW41630



SHOCK PROTECTING COVER
TW77508B





CASE Fafa's restaurant, Lahti, Finland

The restaurant Fafa's serves falafel dishes with fresh ingredients at a good price-quality ratio.

The Lahti's restaurant exits are secured with the compact ESC 0.5 (p. 126).

ESC 3

EXIT LIGHT WITH 70 M AND 120 M VIEWING DISTANCES,
WALL MOUNTING AS STANDARD

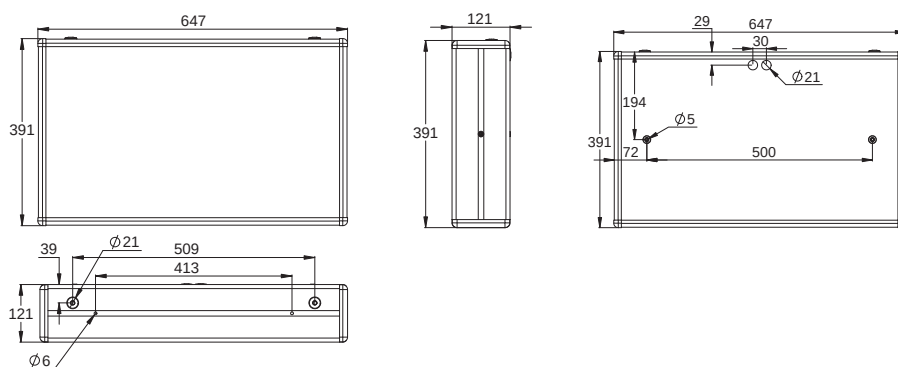


The stylish aluminium profile bodied ESC 3 is particularly suitable for large areas, which require a long viewing distance. The luminaire is suitable for wall, as well as for ceiling suspended installation. Wall mounting comes as standard.

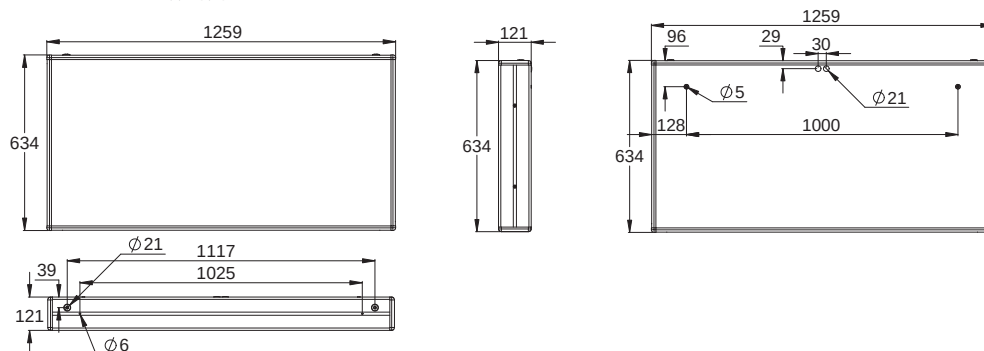
Certain models can be used as 1 sided as well as 2 sided. ESC 3 uses fluorescent tubes as its light source.

TW397xx luminaire's IP class is 44, and TW494xx luminaire's IP class is 20.

TWT397XX



TWT494XX



= Protection class of luminaire is 1
 = Protection class of luminaire is 2
 = Protection class of luminaire is 3
 = Luminaire is suitable for through-wiring

= Protection rating
 = Colour of the body
 = Viewing distance
 = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
M = Self-contained luminaire with Lumi test self-testing
Escap = Self-contained luminaire with 1 h super capacitor backup
C = Compatible with Tapsa Control Central Battery Unit and Local Controller

= compliant with the 850 glow wire test
IC = Compatible with Intelligent Controller
CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24 V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Viewing distance	Nominal supply voltage	Max input power	Light Source	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW39722	< 70 m	24 V 50/60 Hz AC,DC	26 VA / 18 W	18 W G13	CBS	-10... +50°C	2 x 2,5 mm ² -o-	4,6
TW39723*)	< 70 m	24 V 50/60 Hz AC,DC	26 VA / 18 W	18 W G13	CBS	-10... +50°C	2 x 2,5 mm ² -o-	4,6
TW49422	< 120 m	24 V 50/60 Hz AC,DC	41 VA / 37 W	36 W G13	CBS	-10... +50°C	2 x 2,5 mm ² -o-	9,8
TW49423*)	< 120 m	24 V 50/60 Hz AC,DC	41 VA / 37 W	36 W G13	CBS	-10... +50°C	2 x 2,5 mm ² -o-	9,8

*) This luminaire can be used as double sided. The rest of the models can only be used as single sided.

230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Viewing distance	Nominal supply voltage	Max input power	Light Source	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW39781	< 70 m	220-240 V, 50/60 Hz AC,DC	22 VA / 18 W	18 W G13	CBS	-10... +50°C	3 x 2,5 mm ² -o-	4,6
TW39782*)	< 70 m	220-240 V, 50/60 Hz AC,DC	22 VA / 18 W	18 W G13	CBS	-10... +50°C	3 x 2,5 mm ² -o-	4,6
TW49481	< 120 m	220-240 V, 50/60 Hz AC,DC	38 VA / 32 W	36 W G13	CBS	-10... +50°C	3 x 2,5 mm ² -o-	9,8
TW49482*)	< 120 m	220-240 V, 50/60 Hz AC,DC	38 VA / 32 W	36 W G13	CBS	-10... +50°C	3 x 2,5 mm ² -o-	9,8

*) This luminaire can be used as double sided. The rest of the models can only be used as single sided.

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Viewing distance	Nominal supply voltage	Max input power	Light Source	Operation mode	Temperature range	Electrical installation	Weight (kg)
TW39781K	< 70 m	220-240 V, 50/60 Hz AC,DC	23 VA / 19 W	18 W G13	CBS / C	-10... +50°C	3 x 2,5 mm ² -o-	4,6
TW39782K*)	< 70 m	220-240 V, 50/60 Hz AC,DC	23 VA / 19 W	18 W G13	CBS / C	-10... +50°C	3 x 2,5 mm ² -o-	4,6
TW49481K	< 120 m	220-240 V, 50/60 Hz AC,DC	38 VA / 32 W	36 W G13	CBS / C	-10... +50°C	3 x 2,5 mm ² -o-	9,8
TW49482K*)	< 120 m	220-240 V, 50/60 Hz AC,DC	38 VA / 32 W	36 W G13	CBS / C	-10... +50°C	3 x 2,5 mm ² -o-	9,8

*) Light can be used as double sided. The rest of the models can only be used as single sided.



SEPARATELY ORDERED PICTOGRAMS

Product code	Viewing distance	Pictogram	Product description	For light
PB3973E	< 70 m		Down arrow	TW397xx
PB3972E	< 70 m		Right arrow	TW397xx
PB3971E	< 70 m		Left arrow	TW397xx
PB4943E	< 120 m		Down arrow	TW494xx
PB4942E	< 120 m		Right arrow	TW494xx
PB4941E	< 120 m		Left arrow	TW494xx

Pictograms in the table are 1-sided



CASE Prisma Holma, Lahti, Finland

Prisma Hypermarkets' range of goods covers groceries as well as clothing and electrical household products.

Prisma Hypermarket is located in Holma, in the city of Lahti, Finland, and uses Teknoware's traditional 230V central battery system TKT65B (p. 24). There are ESC 3 (p. 131) exit lights that are well suited for large public areas, as well as ESC 6L (p. 116) exit lights.

ESC CUBE

LED EXIT LIGHT FOR 65 M VIEWING DISTANCE, PERCEPTIVITY
FROM FOUR SIDES, CEILING MOUNTING AS STANDARD

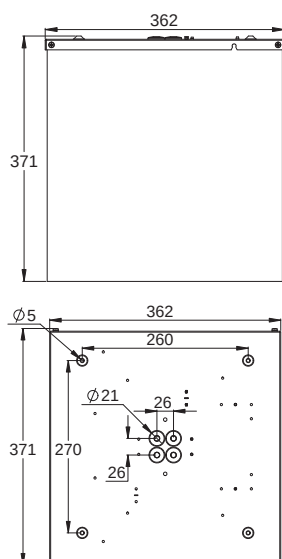


ESC Cube is a large and impressive, cube-shaped LED exit light. Pictograms can be attached on the luminaire on all four sides. ESC Cube has a plastic/metal body.

The luminaire is suitable for ceiling and suspension mounting. Ceiling mounting is included as standard in the luminaire. Long lasting leds are used as the light source of the luminaire.

ESC Cube is particularly suitable for large public areas such as shopping centers, where the escape route passes through a space in the middle of the staircase. One ESC Cube exit light can cover the guidance for the entire surrounding area.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWK6353WA	220-240 V, 50/60 Hz AC	7,8 VA / 6 W	3 h battery + Aalto	-5... +30°C	3 x 2,5 mm ² -o-	4,2

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWK6353WM	220-240 V, 50/60 Hz AC	7,8 VA / 6 W	3 h battery + M	-5... +30°C	3 x 2,5 mm ² -o-	4,2

SEPARATELY ORDERED PICTOGRAMS

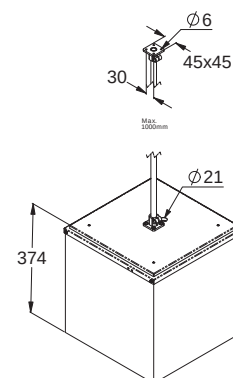
Product code	Pictogram	Product description
PB6301		Right arrow
PB6302		Left arrow
PB6303		Down arrow

Pictograms in the table are 1-sided

ACCESSORIES

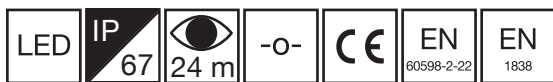
Product code	Product description
TWK6300	Suspension bracket (white, RAL9003), with 1 m shaft Ø 16 mm

SUSPENSION BRACKET
TWK6300



ROBUST EXIT

LED EXIT LIGHT WITH A VIEWING DISTANCE OF 24 M,
FOR SURFACE MOUNTING ON A WALL

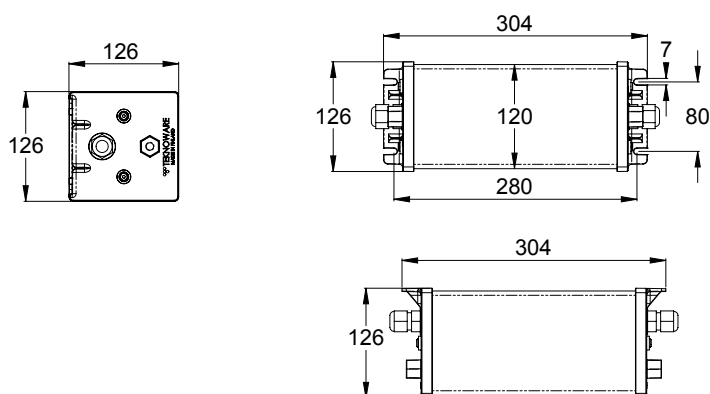


Teknoware's metal bodied Robust Exit is a surface mounted LED exit light.

High IP class and especially robust construction make the Robust Exit exit light ideal for demanding conditions. It resists water as well as dust.

Among others, the Länsimetro subway tunnels in Finland are using Robust Exit luminaires.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9651W	220-240 V AC/DC	9,2 VA / 2,9 W	CBS	-30...+50°C	3 x 2,5 mm ² -o- ⊕	1,3

ADDRESSABLE 230 V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9651WK	220-240 V AC/DC	8,3 VA / 4,6 W	CBS / C	-30...+50°C	3 x 2,5 mm ² -o- ⊕	1,3

SEPARATELY ORDERED PICTOGRAMS

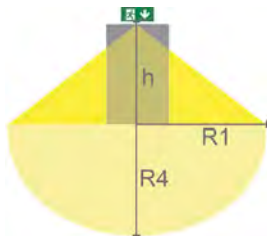
Product code	Pictogram	Product description
PB9604E		Down arrow
PB9606E		Right arrow
PB9605E		Left arrow

Pictograms in the table are 1-sided

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

Tables of 1 lux and 0,5 lux, under the Exit Light.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT9651W, TWT9651WK

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	2	1,5	0,5	2	1

SOLID EXIT

LED EXIT LIGHT WITH A VIEWING DISTANCE OF 30 M,
FOR SURFACE MOUNTING ON A WALL

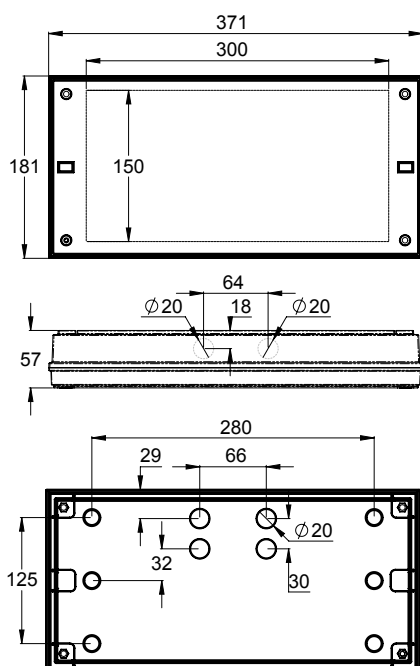


SOLID is Teknoware's new IP65 enclosure class exit and emergency light product family. SOLID is designed for demanding conditions. Wall mounted, one sided SOLID EXIT comes with easily changeable pictograms. Special attention has been paid to the design, for easy installation.

The luminaire is completely dust proof and water proof, so it is suitable for example for industrial premises and parking halls. ESCAP and centrally supplied luminaires are suitable also for outdoor use. SOLID uses long lasting leds as its light source.

The range also has a model with a downlight function, which is suitable for example for mounting above a door.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3071W	24-230 V, 50/60 Hz AC	24 V=1,2 VA / 0,8 W 230 V=3,5 VA / 1,5 W	CBS	-30... +50°C	24 V=2 x 2,5 mm ² 230 V=3 x 2,5 mm ² -o-	1,4
Y3071W140	(individually packed incl. TWT3071W + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					
TWT3071WE *)	24-230 V, 50/60 Hz AC	24 V=2 VA / 1,5 W 230 V=4,5 VA / 2 W	CBS	-30... +50°C	24 V=2 x 2,5 mm ² 230 V=3 x 2,5 mm ² -o-	1,4
Y3071WE140 *)	(individually packed incl. TWT3071WE + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					

*) Exit light with downlight function

230V CENTRALLY SUPPLIED EXIT LIGHTS



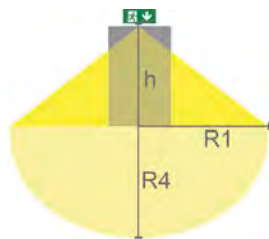
Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3051WK	220-240 V, 50/60 Hz AC	6 VA / 3 W	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -o-	1,4
Y3051WK140	(individually packed incl. TWT3051WK + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					
TWT3051WKE *)	220-240 V, 50/60 Hz AC	6,5 VA / 3,5 W	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -o-	1,4
Y3051WKE140 *)	(individually packed incl. TWT3051WKE + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					

*) Exit light with downlight function

LIGHT DISTRIBUTION TABLES

Downlight chart for Exit Lights

| Tables of 1 lux and 0,5 lux, under the Exit Light.
 | Level of measurement 0,02 m, measurement result with battery operation.



| R1 distance from wall (X axis) | R4 distance from wall (Y axis)

TWT3071WE, TWT3051WKE

Mounting height (m)	Below the light (lux)	R1 (m)	R4 (m)	R1 (m)	R4 (m)
		1 lux	1 lux	0,5 lux	0,5 lux
2	17	1,5	1,5	2	2
2,5	12	2	2	2,5	2,5
3	7,5	2	2	2,5	2,5
4	4	2	2	2,5	2,5
5	2,5	2	2	2,5	2,5
6	1,5	1,5	1,5	2,5	2,5

SOLID EXIT



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS3092WA	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -O-	1,3
Y3092WA140	(individually packed incl. TWS3092WA + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					

SELF-CONTAINED EXIT LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS3092WM	220-240 V, 50/60 Hz AC	4 VA	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -O-	1,3
Y3092WM140	(individually packed incl. TWS3092WM + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					

= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3053WA	220-240 V, 50/60 Hz AC		3 h battery + Aalto	-5... +30°C	2/3 x 2,5 mm ² -O-	
Y3053WA140	(individually packed incl. TWT3053WA + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					

SELF-CONTAINED EXIT LIGHTS WITH 3 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3053WM	220-240 V, 50/60 Hz AC		3 h battery + M	-5... +30°C	2/3 x 2,5 mm ² -O-	
Y3053WM140	(individually packed incl. TWT3053WM + set of pictograms: pictograms PB3003E, PB3002E, PB3001E)					



SEPARATELY ORDERED PICTOGRAMS

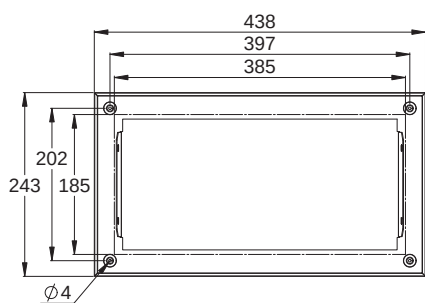
Product code	Pictogram	Product description
PB3003E		Down arrow
PB3002E		Right arrow
PB3001E		Left arrow
PB3005E		Up arrow

Pictograms in the table are 1-sided

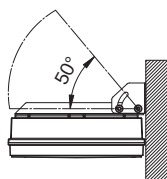
ACCESSORIES

Product code	Product description
TWT3001	Recess mounting frame
TWT3002	Wall bracket
TWT3003	Flag bracket
TWT3004	Ceiling bracket

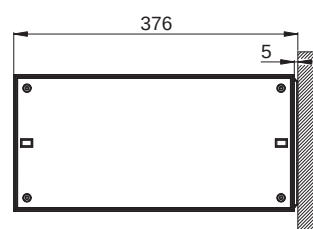
RECESS MOUNTING FRAME
TWT3001



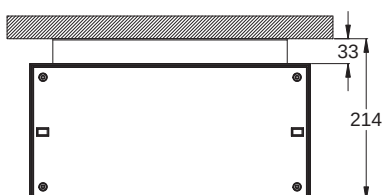
WALL MOUNTING
WITH WALL BRACKET TWT3002



FLAG MOUNTING WITH
FLAG BRACKET TWT3003



WALL MOUNTING
WITH WALL BRACKET TWT3004





CASE Rabenhof Theatre, Vienna, Austria

Founded in 1927, Rabenhof Theatre has served over the years as a cinema and as a function room.

During the last renovation, the theater changed to Teknoware's 230 V Tapsa Control central battery system (TKT65C p. 22) as well as ESC 80 exit lights (p. 70) and Linespot II Lowbay (p. 152) and Zonespot II Lowbay (p.176) emergency lights.

SOLID EXIT 2

LED EXIT LIGHT WITH A LIGHT PLATE AND A VIEWING DISTANCE OF 30 M,
FOR SURFACE MOUNTING ON A CEILING

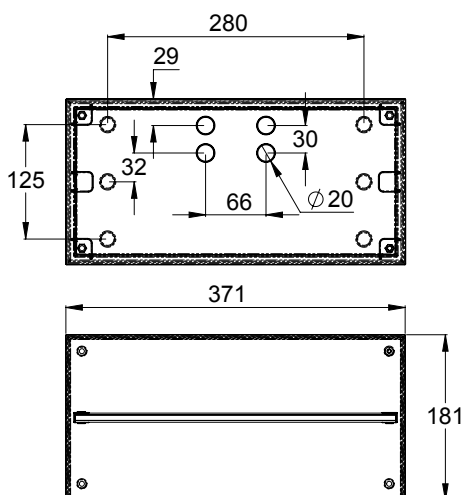
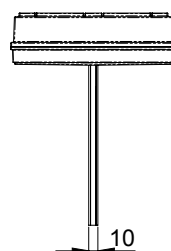
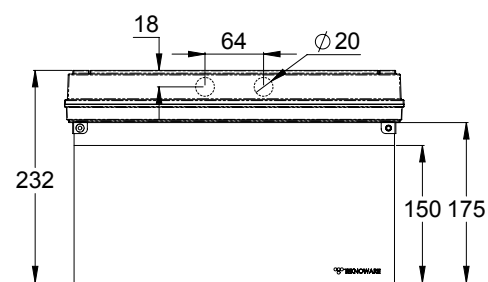


The SOLID EXIT 2 light is equipped with a light plate. The luminaire is designed specifically to withstand harsh conditions. It is a 2-sided IP65 enclosure classed luminaire and completely dust and water proof.

SOLID EXIT 2 is suitable for example for industrial premises and parking halls. ESCAP and centrally supplied luminaires are also suitable for outdoor use. The luminaire uses long lasting leds as its light source.

Special attention has been paid to the design for easy installation.

DIMENSIONS



CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EXIT LIGHTS

Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3171W	24-230 V, 50/60 Hz AC	24 V=8 VA / 5 W 230 V=15 VA / 6 W	CBS	-30... +50°C	24 V=2 x 2,5 mm ² 230 V=3 x 2,5 mm ² -o-	1,8
Y3171W143	(individually packed incl. TWT3171W + pictogram, 2-sided)					
Y3171W148	(individually packed incl. TWT3171W + pictogram, 1-sided)					
Y3171W147	(individually packed incl. TWT3171W + pictogram, 1-sided)					
Y3171W145	(individually packed incl. TWT3171W + pictogram, 2-sided)					
Y3171W149	(individually packed incl. TWT3171W + pictogram, 1-sided)					

230V CENTRALLY SUPPLIED EXIT LIGHTS



Product code	Nominal supply voltage	Max input power	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3151WK	220-240 V, 50/60 Hz AC	6 VA / 3 W	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -o-	1,8
Y3151WK143	(individually packed incl. TWT3151WK + pictogram, 2-sided)					
Y3151WK148	(individually packed incl. TWT3151WK + pictogram, 1-sided)					
Y3151WK147	(individually packed incl. TWT3151WK + pictogram, 1-sided)					
Y3151WK145	(individually packed incl. TWT3151WK + pictogram 2-sided)					
Y3151WK149	(individually packed incl. TWT3151WK + pictogram, 1-sided)					

SOLID EXIT 2



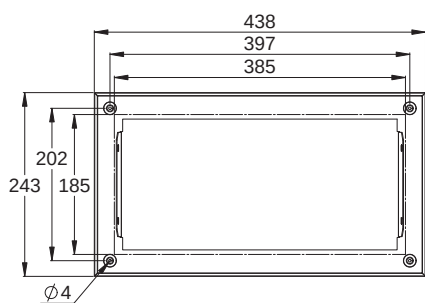
SEPARATELY ORDERED PICTOGRAMS

Product code	Pictogram	Product description
PBV31302E		Down arrow 2-sided
PBV31302E3		Down arrow, 1-sided
PBV31301E		Left/right arrow, 2-sided
PBV31301E1		Right arrow, 1-sided
PBV31301E2		Left arrow, 1-sided
PBV31305E		Up arrow 2-sided
PBV31305E3		Up arrow, 1-sided

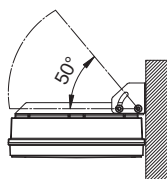
ACCESSORIES

Product code	Product description
TWT3001	Recess mounting frame
TWT3002	Wall bracket
TWT3003	Flag bracket
TWT3004	Ceiling bracket

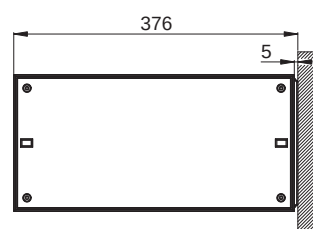
RECESS MOUNTING FRAME
TWT3001



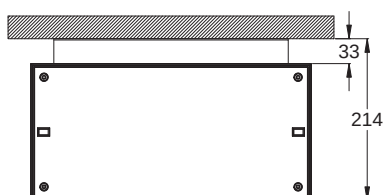
WALL MOUNTING
WITH WALL BRACKET TWT3002



FLAG MOUNTING WITH
FLAG BRACKET TWT3003



WALL MOUNTING
WITH WALL BRACKET TWT3004





CASE Clarion Hotel Helsinki Airport, Vantaa, Finland

The new International Clarion Hotel at Helsinki Airport was opened in October 2016. The hotel has 258 guest rooms, 10 meeting rooms, a restaurant, a bar, two saunas and a gym. The hotel has a first class interior, Fun Dining and Living Room concepts have been used creatively. Teknoware's self-contained luminaires equipped with Aalto Control remote monitoring have been delivered to the Clarion Hotel: ESC 80 (p. 70), Linespot II Lowbay (p. 152 and p. 164), Zonespot II Lowbay (p. 176 and 190) and Zonespot II Midbay (p. 182).

24-230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m		26 m	30 m
			ZONESPOT II LOWBAY, TWT0471W <i>recess mounting</i>												
			ZONESPOT II LOWBAY, TWT9271W <i>surface mounting</i>												
				SLIMSPOT, TWT9771W <i>recess mounting</i>											
				SOLID ZONE LOWBAY, TWT3271W <i>surface mounting</i>											
					ZONESPOT II MIDBAY, TWT9371W <i>surface mounting</i>										
					SAFE 6, TWT0671W (without separate lens) <i>ceiling, wall and flag mounting</i>										
													SOLID ZONE MIDBAY, TWT3671W <i>surface mounting</i>		

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m		26 m	30 m
			LINESPOT II LOWBAY, TWT1471W <i>recess mounting</i>												
			LINESPOT II LOWBAY, TWT9971W <i>surface mounting</i>												
			SOLID LINE LOWBAY, TWT4271W <i>surface mounting</i>												
			SLIMSPOT, TWT9771W <i>recess mounting</i>												
						LINESPOT II MIDBAY, TWT8871W <i>surface mounting</i>									
									SAFE 6, TWT0671W (with lens) <i>ceiling, wall and flag mounting</i>						
									SOLID LINE MIDBAY, TWT4371W <i>surface mounting</i>						
									LINESPOT, TWT5071W <i>recess mounting</i>						

Emergency lights for open areas:

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m	...	26 m	30 m
			ZONESPOT II LOWBAY, TWT0451WK <i>recess mounting</i>												
			ZONESPOT II LOWBAY, TWT9251WK <i>surface mounting</i>												
			SLIMSPOT, TWT9751WK <i>recess mounting</i>												
			SOLID ZONE LOWBAY, TWT3251WK <i>surface mounting</i>												
			ZONESPOT II MIDBAY, TWT9351WK <i>surface mounting</i>												
			TRISPOT, TWT7651WK <i>recess mounting</i>												
			SAFE 6, TWT0651WK (without separate lens) <i>ceiling, wall and flag mounting</i>												
			TRISPOT, TWT7551WK <i>recess mounting</i>												
			ZONESPOT II MIDBAY, TWT9356WK <i>surface mounting</i>												
			SOLID ZONE MIDBAY, TWT3651WK <i>surface mounting</i>												
			SAFE 82, TWT8251WKH <i>ceiling mounting</i>												
			ZONESPOT II HIGHBAY TWT8456WK <i>surface mounting</i>												

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m		26 m	30 m
			LINESPOT II LOWBAY, TWT1451KW <i>recess mounting</i>												
			LINESPOT II LOWBAY, TWT9951WK <i>surface mounting</i>												
			SOLID LINE LOWBAY, TWT4251WK <i>surface mounting</i>												
						SLIMSPOT, TWT9751WK <i>recess mounting</i>									
									TRISPOT, TWT7651WK <i>recess mounting</i>						
									SAFE 6, TWT0651WK (with lens) <i>ceiling, wall and flag mounting</i>						
									TRISPOT, TWT7551WK <i>recess mounting</i>						
									LINESPOT TWT5051WK <i>recess mounting</i>						
									SOLID LINE MIDBAY, TWT4351WK <i>surface mounting</i>						
									LINESPOT II MIDBAY TWT8851WK <i>surface mounting</i>						
									SAFE 82 TWT821WKH <i>ceiling mounting</i>						
													LINESPOT II MIDBAY, HIGH OUTPUT TWT8851WK <i>surface mounting</i>		

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H OR 3 H BATTERY, SELF-TESTING AND WIRELESS CENTRAL MONITORING

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m	...	26 m	30 m
			ZONESPOT II LOWBAY, TWT0452WA/M, TWT0453WA/M <i>recess mounting</i>												
			ZONESPOT II LOWBAY, TWT9252WA/M, TWT9253WA/M <i>surface mounting</i>												
			SAFE 6, TWT0652WA/M (without separate lens) <i>ceiling, wall and flag mounting</i>												
							SOLID ZONE LOWBAY, TWT3252WA/M, TWT3253WA/M <i>surface mounting</i>								
							SLIMSPOT, TWT9752WA/M, TWT9753WA/M <i>recess mounting</i>								
											ZONESPOT II MIDBAY, TWT9352WA/M, TWT9353WA/M <i>surface mounting</i>				
														SOLID ZONE MIDBAY, TWT3652WA/M <i>surface mounting</i>	

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m		26 m	30 m
			LINESPOT II LOWBAY, TWT1452WA/M, TWT1453WA/M <i>recess mounting</i>												
			LINESPOT II LOWBAY, TWT9952WA/W, TWT9953WA/M <i>surface mounting</i>												
			SOLID LINE LOWBAY, TWT4252WA/M, TWT4253WA/M <i>surface mounting</i>												
						SLIMPOT, TWT9752WA/M, TWT9753WA/M <i>recess mounting</i>									
						SAFE 6, TWT0652WA/M (with lens) <i>ceiling, wall and flag mounting</i>									
											LINESPOT, TWT5052WA/M, TWT5053WA/M <i>recess mounting</i>				
											LINESPOT II MIDBAY, TWT8852WA/M, TWT8853WA/M <i>surface mounting</i>				
											SOLID LINE MIDBAY, TWT4352WA/M, TWT4353WA/M <i>surface mounting</i>				

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR, SELF-TESTING AND WIRELESS CENTRAL MONITORING

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m		26 m	30 m
		SLIMSPOT, TWS9792WA/M recess mounting													
		ZONESPOT II LOWBAY, TWS0492WA/M recess mounting													
		ZONESPOT II LOWBAY, TWS9292WA/M surface mounting													
		SOLID ZONE LOWBAY, TWS3292WA/M surface mounting													
			ZONESPOT II LOWBAY, TWS0492WAC, TWS0492WMC recess mounting												
			ZONESPOT II LOWBAY, TWS9292WACM TWS9292WMC surface mounting												
					ZONESPOT II MIDBAY, TWS9392WA/M surface mounting										
							ZONESPOT II MIDBAY, TWS9392WAC, TWS9392WMC surface mounting								
							SOLID ZONE MIDBAY, TWS3692WA surface mounting								

Emergency lights for escape routes:

Installation height															
2 m	3 m	4 m	5 m	6 m	7 m	8 m	10 m	12 m	14 m	16 m	18 m	20 m		26 m	30 m
		SLIMPOT, TWS9792WA/M <i>recess mounting</i>													
		SOLID LINE LOWBAY, TWS4292WA/M <i>surface mounting</i>													
		LINESPOT II LOWBAY, TWS9992WA/M <i>surface mounting</i>													
		LINESPOT II LOWBAY, TWS1492WA/M <i>recess mounting</i>													
		LINESPOT TWS5092WA/M <i>recess mounting</i>													
		SOLID LINE MIDBAY, TWS4392WA/M <i>surface mounting</i>													
		LINESPOT II MIDBAY, TWS8892WA/M <i>surface mounting</i>													

LINESPOT II LOWBAY

LED EMERGENCY LIGHT FOR SURFACE MOUNTING IN 2-4 M HIGH AREAS,
IN PARTICULAR FOR LIGHTING OF CORRIDORS



Installation video

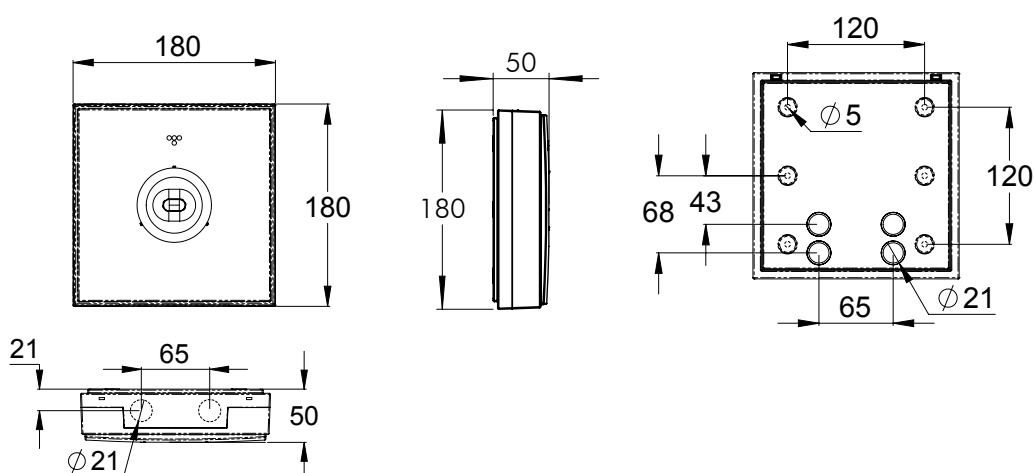


Direction
of the light
pattern

Linespot II Lowbay is surface mounted emergency light for 2-4 meter high areas. Luminaire makes use of LED technology. Its optics is designed to give a long and narrow light pattern that illuminates corridors and escape routes efficiently.

Thanks to the IP44 enclosure class Linespot II is also suitable for damp locations. Linespot II is easy and fast to install thanks to a separate mounting base, which is also connected to the power supply.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

P20 = Protection rating
 RAL = Colour of the body
 50 m = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9971W	24-230 V, 50/60 Hz AC,DC	24 V= 8 VA / 5 W 230 V= 10 VA / 5 W	170	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	0,5
Y9971W	(individually packed incl. TWT9971W)						0,6

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

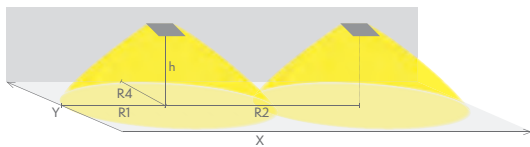


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9951WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	170	CBS/ C + IC	-30... +50°C	2/3 x 2,5 mm ² -o-	0,5
Y9951WK	(individually packed incl. TWT9951WK)						0,6

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT9971W, TWT9951WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	6,4	8	19,5	1
4	2,5	9	24	1

LINESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9992WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9992WA	(individually packed incl. TWS9992WA)						1,0

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING

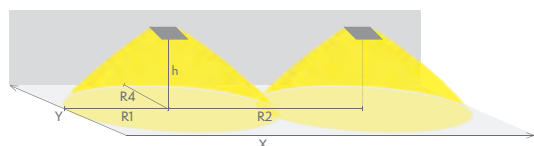


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9992WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9992WM	(individually packed incl. TWS9992WM)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

| Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
| Level of measurement 0,02 m, measurement result with battery operation.



| R1 distance from wall (X axis)
| R2 installation distance between lights (X axis)
| R4 distance from wall (Y axis)

TWS9992WA, TWS9992WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	2,5	7	15	1
3	1,5	8	17	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9952WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	170	1 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	0,7
Y9952WA	(individually packed incl. TWT9952WA)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

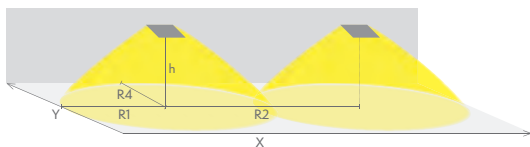


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9953WA	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	170	3 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9953WA	(individually packed incl. TWT9953WA)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT9952WA, TWT9953WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	6,4	8	19,5	1
4	2,5	9	24	1

LINESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9952WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	170	1 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	0,7
Y9952WM	(individually packed incl. TWT9952WM)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

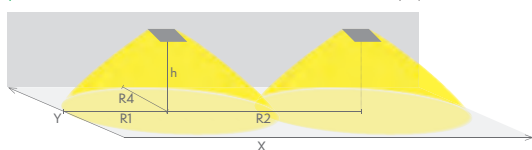


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9953WM	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	170	3 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	0,9
Y9953WM	(individually packed incl. TWT9953WM)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWT9952WM, TWT9953WM

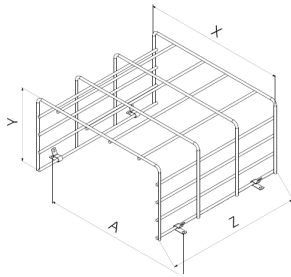
Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	6,4	8	19,5	1
4	2,5	9	24	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊖ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 RAL = Colour of the body
 50 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

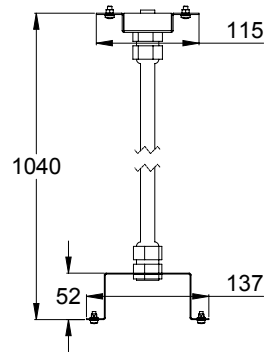
ACCESSORIES

Product code	Product description
TW77504F	Suspension bracket
TW77507B	Shock protecting cover (dimensions: X=320, Y=165, Z=305, A=340)

SHOCK PROTECTING COVER
TW77507B



SUSPENSION BRACKET
TW77504F



LINESPOT II MIDBAY

LED EMERGENCY LIGHT FOR SURFACE MOUNTING IN 3-16 M HIGH AREAS,
IN PARTICULAR FOR LIGHTING OF CORRIDORS



Direction of the
light pattern



Installation video

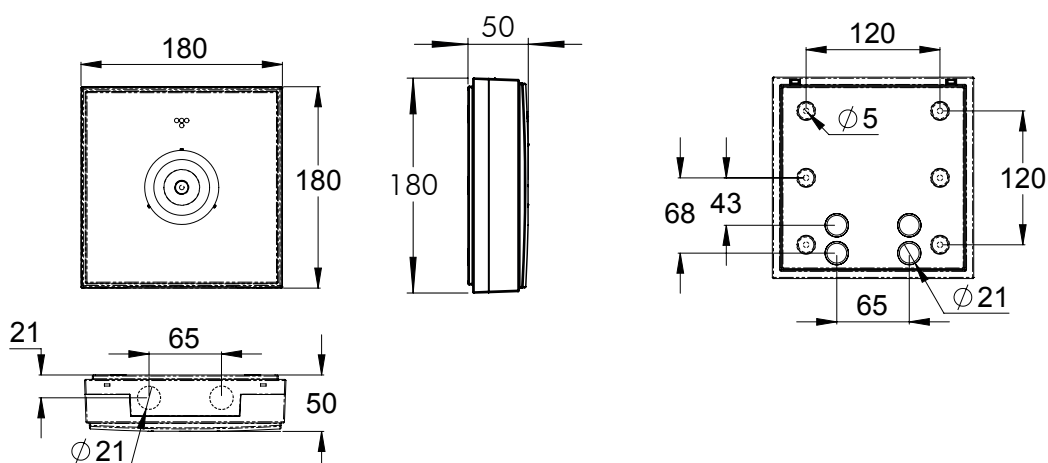


Linespot II Midbay is a surface-mounted emergency light, especially designed for lighting 3-10 meter high areas. High Output version, TWT8856WK is suitable for up to a 16 m installation height.

Linespot II Midbay uses the latest LED technology. Its optics is designed to give a long and narrow light pattern that illuminates corridors and escape routes efficiently.

Linespot II is also suitable for damp locations. Linespot II is easy and fast to install thanks to a separate mounting base, which is also connected to the power supply.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

P20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8871W	24-230 V, 50/60 Hz AC,DC	24 V= 8 VA / 5 W 230 V= 10 VA / 5 W	175	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -O-	0,5
Y8871W	(individually packed incl. TWT8871W)						0,6

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

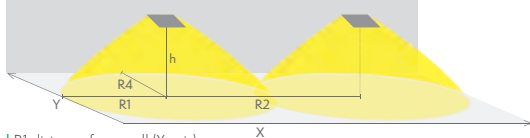


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8851WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	175	CBS/ C + IC	-30... +50°C	2/3 x 2,5 mm ² -O-	0,5
Y8851WK	(individually packed incl. TWT8851WK)						0,6
TWT8856WK	220-240 V, 50/60 Hz AC,DC	22 VA / 12 W	555 HIGH OUTPUT	CBS/ C + IC	-30... +50°C	2/3 x 2,5 mm ² -O-	0,5
Y8856WK	(individually packed incl. TWT8856WK)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838:
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

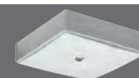
TWT8851WK, TWT8871W

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
3	31	5	11	1
4	17	6,5	15	1
6	7	7	18	1
8	4	8	19	1
10	2	8	20	1

TWT8856WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
4	37	6,5	15	1
6	16	7	18	1
8	9	8	19	1
10	6	8	20	1
12	4	10	22	1
14	2,5	9,5	20	1
16	1,5	8,5	18	1

LINESPOT II MIDBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8892WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y8892WA	(individually packed incl. TWS8892WA)						1,0

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING

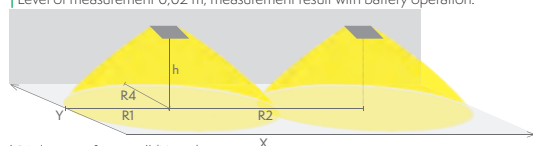


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS8892WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y8892WM	(individually packed incl. TWS8892WM)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWS8892WA, TWS8892WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	11	3,5	8	1
3	8	3,5	9	1
4	4,5	4	10	1
6	2	4	11	1
8	1,1	3	11	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8852WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	175	1 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	0,7
Y8852WA	(individually packed incl. TWT8852WA)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

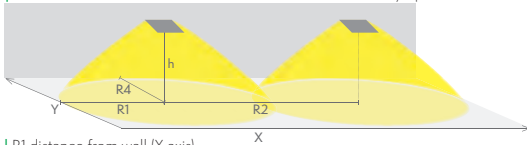


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8853WA	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	175	3 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y8853WA	(individually packed incl. TWT8853WA)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.1
 Level of measurement 0,02 m, measurement result with battery operation.

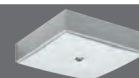


R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT8852WA, TWT8853WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
3	31	5	11	1
4	17	6,5	15	1
6	7	7	18	1
8	4	8	19	1
10	2	8	20	1

LINESPOT II MIDBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



850 °C

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8852WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	175	1 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	0,7
Y8852WM	(individually packed incl. TWT8852WM)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING



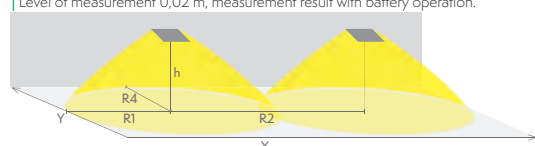
850 °C

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8853WM	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	175	3 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	0,9
Y8853WM	(individually packed incl. TWT8853WM)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)

R2 installation distance between lights (X axis)

R4 distance from wall (Y axis)

TWT8852WM, TWT8853WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
3	31	5	11	1
4	17	6,5	15	1
6	7	7	18	1
8	4	8	19	1
10	2	8	20	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊖ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source

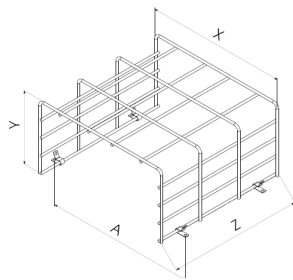
Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

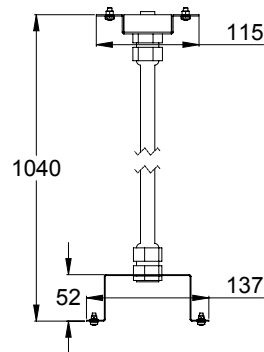
ACCESSORIES

Product code	Product description
TW77504F	Suspension bracket
TW77507B	Shock protecting cover (dimensions: X=320, Y=165, Z=305, A=340)

SHOCK PROTECTING COVER
TW77507B



SUSPENSION BRACKET
TW77504F



LINESPOT II LOWBAY

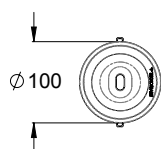
LED EMERGENCY LIGHT FOR RECESS MOUNTING, IN PARTICULAR FOR LIGHTING OF CORRIDORS, RECESS MOUNTING APERTURE $\varnothing 75$ MM



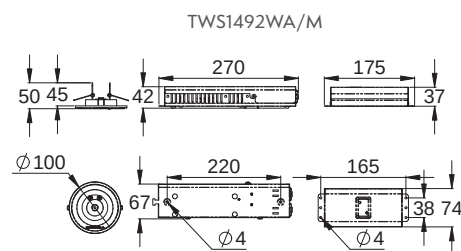
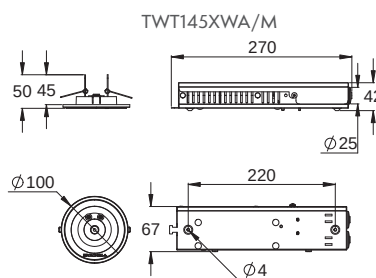
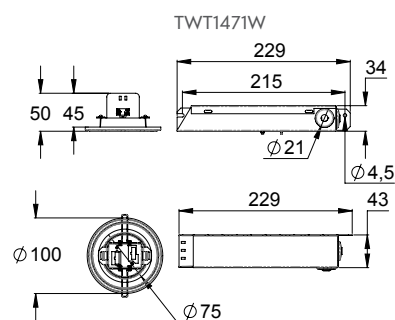
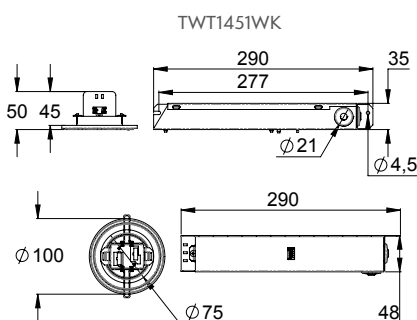
Compact and stylish Linespot II Lowbay is designed especially for corridor lighting. The luminaire is recess mounted; size of the recess mounting aperture is $\varnothing 75$ mm. Linespot II Lowbay's design is an unobtrusive solution for energy efficient emergency lighting.

Linespot II Lowbay uses the latest LED technology and optics. It gives a long and narrow pattern of light that illuminates the escape route effectively, and allows a mounting distance of up to 24 m between the luminaires.

DIMENSIONS



Aperture for mounting $\varnothing 75$ mm



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1471W	24-230 V, 50/60 Hz AC,DC	24 V= 7,5 VA / 4 W 230 V= 11 VA / 4 W	180	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o- ⊞	0,4
Y1471W	(individually packed incl. TWT1471W)						0,5

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1451WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	180	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o- ⊞	0,4
Y1451WK	(individually packed incl. TWT1451WK)						0,5

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT1471W, TWT1451WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	6,4	8	19,5	1
4	2,5	9	24	1

LINESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS1492WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + Aalto	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y1492WA	(individually packed incl. TWS1492WA)						0,9

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING

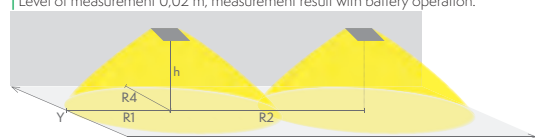


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS1492WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + M	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y1492WM	(individually packed incl. TWS1492WM)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)

R2 installation distance between lights (X axis)

R4 distance from wall (Y axis)

TWS1492WA, TWS1492WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	2,5	7	15	1
3	1,5	8	17	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 °C = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1452WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	180	1 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -o- ⊕	0,6
Y1452WA	(individually packed incl. TWT1452WA)						0,7

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

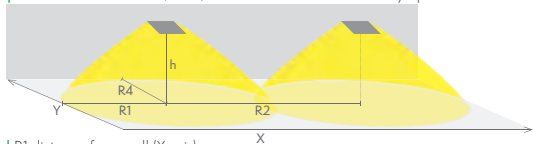


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1453WA	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	180	3 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -o- ⊕	0,8
Y1453WA	(individually packed incl. TWT1453WA)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.1
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT1452WA, TWT1453WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	6,4	8	19,5	1
4	2,5	9	24	1

LINESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1452WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	180	1 h battery + M	0...+35°C	3 x 2,5 mm ² -o-	0,6
Y1452WM	(individually packed incl. TWT1452WM)						0,7

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

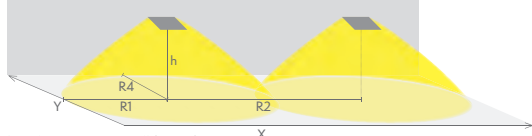


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT1453WM	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	180	3 h battery + M	0...+35°C	3 x 2,5 mm ² -o-	0,8
Y1453WM	(individually packed incl. TWT1453WM)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) R2 installation distance between lights (X axis) R4 distance from wall (Y axis)

TWT1452WM, TWT1453WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	6,4	8	19,5	1
4	2,5	9	24	1

 = Protection class of luminaire is 1
  =Protection rating
  =Aalto Control compatible (incl. Lumi Test)
  =compliant with the 850 glow wire test
 = Protection class of luminaire is 2
 =Colour of the body
 = Self-contained luminaire with Lumi test self-testing
 =Compatible with Intelligent Controller
 = Protection class of luminaire is 3
 =Viewing distance
 = Self-contained luminaire with 1 h super capacitor backup
 = Centrally supplied
 = Luminaire is suitable for through-wiring
 =LED as a light source
 =Compatible with Tapsa Control Central Battery Unit and Local Controller

ACCESSORIES

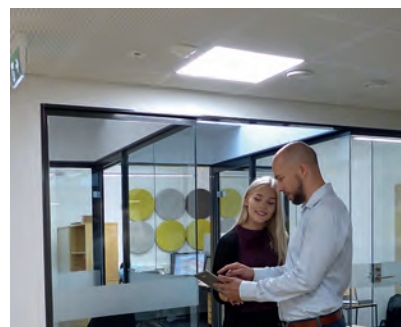
Product code	Product description
TMT389	Gasket ring, through which the visible parts of the light will achieve IP44 protection rating
XJ0414	Extension wire set for self-contained luminaires, 50 cm

LINESPOT

LED EMERGENCY LIGHT FOR RECESS MOUNTING, IN PARTICULAR FOR LIGHTING OF CORRIDORS, RECESS MOUNTING APERTURE $\varnothing 75$ MM



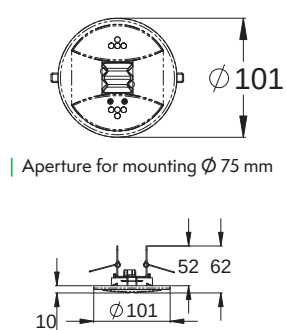
Direction of the light pattern



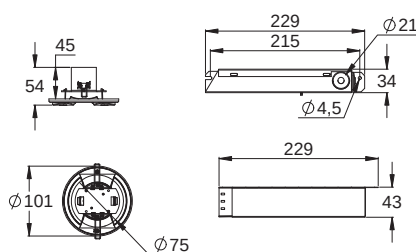
Linespot is especially designed for high corridor lighting. It utilizes the latest LED technology. The luminaire optics are designed to give long and a narrow pattern area that illuminates the escape route efficiently, and enables longer distances between the luminaires, from about 2.5 -10 m installation height.

Linespot's small size and stylish design enables the implementation of a energy efficient emergency lighting without visually disrupting the interiors atmosphere.

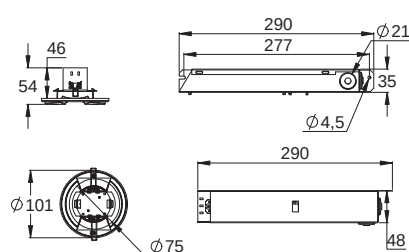
DIMENSIONS



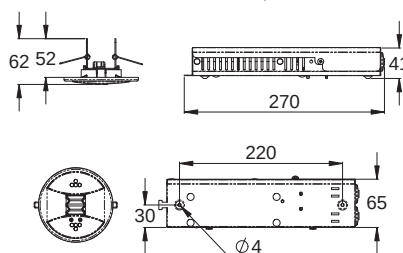
TWT5071W



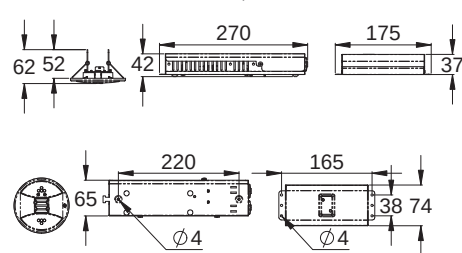
TWT5051WK



TWT505XWA/M



TWS5092WA/M



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT5071W	24-230 V, 50/60 Hz AC,DC	24 V=7,5 VA / 4 W 230 V=11 VA / 4 W	168	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o- ⊞	0,4
Y5071W	(individually packed incl. TWT5071W)						0,5

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

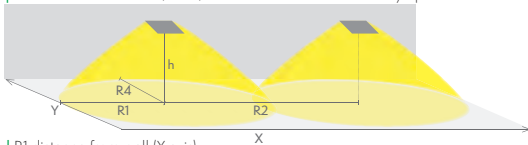


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT5051WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	168	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o- ⊞	0,4
Y5051WK	(individually packed incl. TWT5051WK)						0,5

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838:
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT5051WK, TWT5071W

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	32	5	11	2
4	12,5	6	15	2
6	5,6	6	18	1,5
8	3,1	5	18	1,5
10	2	4	16	1,5



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS5092WA	220-240 V, 50/60 Hz AC	3 VA	60	1 h Escap + Aalto	-25... +35°C	3 x 2,5 mm ² -o-	0,8
Y5092WA	(individually packed incl. TWS5092WA)						0,9

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



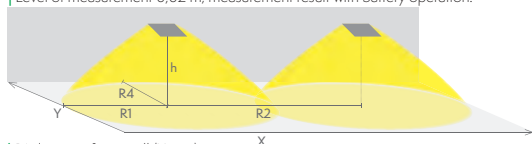
Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS5092WM	220-240 V, 50/60 Hz AC	3 VA	60	1 h Escap + M	-25... +35°C	3 x 2,5 mm ² -o-	0,8
Y5092WM	(individually packed incl. TWS5092WM)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.1

Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)

R2 installation distance between lights (X axis)

R4 distance from wall (Y axis)

TWS5092WA, TWS5092WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	11	3,5	8	1
3	8	3,5	9	1
4	4,5	4	10	1
6	2	4	11	1
8	1,1	3	11	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 50 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT5052WA	220-240 V, 50/60 Hz AC	3 VA	168	1 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -0-	0,6
Y5052WA	(individually packed incl. TWT5052WA)						0,7

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

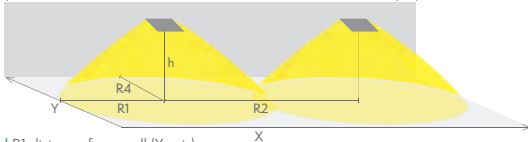


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT5053WA	220-240 V, 50/60 Hz AC	6 VA	168	3 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -0-	0,8
Y5053WA	(individually packed incl. TWT5053WA)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT5052WA, TWT5052WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	32	5	11	2
4	12,5	6	15	2
6	5,6	6	18	1,5
8	3,1	5	18	1,5
10	2	4	16	1,5



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



850 °C

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT5052WM	220-240 V, 50/60 Hz AC	3 VA	168	1 h battery + M	0... +35°C	3 x 2,5 mm ² -o-	0,6
Y5052WM	(individually packed incl. TWT5052WM)						0,7

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING



850 °C

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT5053WM	220-240 V, 50/60 Hz AC	6 VA	168	3 h battery + M	0... +35°C	3 x 2,5 mm ² -o-	0,8
Y5053WM	(individually packed incl. TWT5053WM)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.1

Level of measurement 0,02 m, measurement result with battery operation.



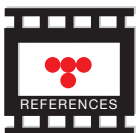
R1 distance from wall (X axis)

R2 installation distance between lights (X axis)

R4 distance from wall (Y axis)

TWT5052WM, TWT5053WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	32	5	11	2
4	12,5	6	15	2
6	5,6	6	18	1,5
8	3,1	5	18	1,5
10	2	4	16	1,5



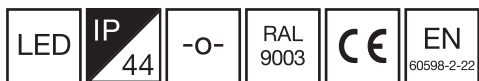
CASE Radboud university Nijmegen, Holland

Radboud University, Nijmegen, the Netherlands. The university was founded in 1923 and it is located in one of the oldest cities in the Netherlands. The university has seven faculties and almost 20 000 students.

Teknoware's self-contained exit lights guide the way to the exit routes.

ZONESPOT II LOWBAY

LED EMERGENCY LIGHT FOR SURFACE MOUNTING IN LOW OPEN AREAS



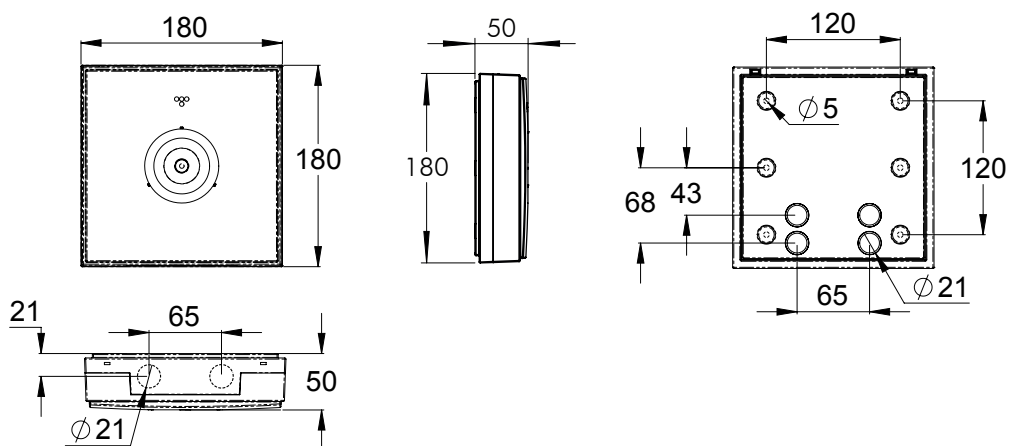
Installation video



Zonespot II Lowbay is an emergency light for 2-4 meter high open spaces. It is particularly suitable for low and open spaces. Zonespot II is easy and fast to install, surface mounted, thanks to a separate mounting base, into which the power supply is also connected.

Zonespot II Lowbay takes advantage of the latest LED technology. Its optics are designed to provide a broad, uniform lighting pattern, which illuminates the open areas effectively. Thanks to the IP44 enclosure class, Zonespot II also suitable for damp locations.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9271W	24-230 V, 50/60 Hz AC,DC	24 V= 8 VA / 5 W 230 V= 10 VA / 5 W	185	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	0,5
Y9271W	(individually packed incl. TWT9271W)						0,6

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

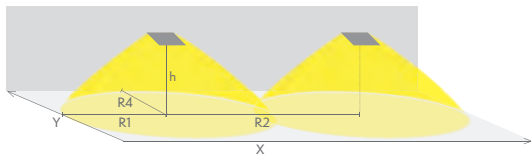


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9251WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	185	CBS / C+ IC	-30... +50°C	2/3 x 2,5 mm ² -o-	0,5
Y9251WK	(individually packed incl. TWT9251WK)						0,6

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

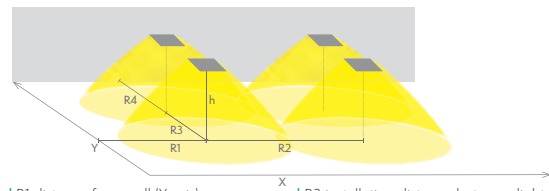
TWT9271W, TWT9251WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	4,3	5	11	5
4	1,7	4	14	4

NOTE! For escape route lighting we recommend
 Linespot II Lowbay (TWT99) luminaires, look at p. 154.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT9271W, TWT9251WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	4,3	5,5	10	10	5,5
4	1,7	6	11	11	6

ZONESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9292WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	65	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9292WA	(individually packed incl. TWS9292WA)						1,0
TWS9292WAC *)	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	81	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9292WAC	(individually packed incl. TWS9292WAC)						1,0

*) Higher luminous flux

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



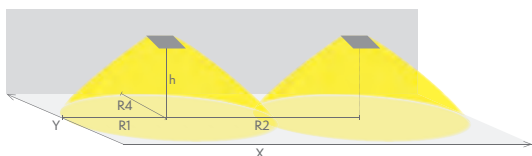
Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9292WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	65	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9292WM	(individually packed incl. TWS9292WM)						1,0
TWS9292WMC *)	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	81	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9292WMC	(individually packed incl. TWS9292WMC)						1,0

*) Higher luminous flux

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWS9292WM, TWS9292WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	1,5	3	7	3
3	1	4	8	4

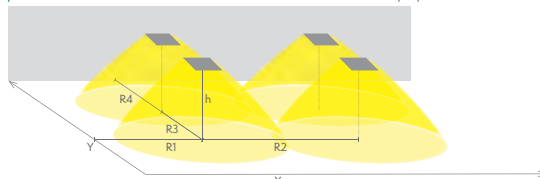
TWS9292WMC, TWS9292WAC

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	1,7	3	8	3
3	1,2	4	8	4

NOTE! For escape route lighting we recommend Linespot II Lowbay (TWT99) luminaires, look at p. 154.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWS9292WM, TWS9292WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	1,5	3	5	5	3
3	1	4	6,5	6,5	4

TWS9292WMC, TWS9292WAC

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	1,7	4	7,5	7,5	4
3	1,2	4	8	8	4
4	0,7	3	8,5	8,5	3

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9252WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	185	1 h battery + Aalto	0...+35°C	2/3 x 2,5 mm ² -o- ⊞	0,7
Y9252WA	(individually packed incl. TWT9252WA)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

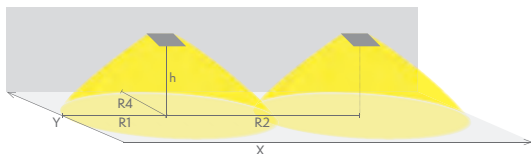


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9253WA	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	185	3 h battery + Aalto	0...+35°C	2/3 x 2,5 mm ² -o- ⊞	0,9
Y9253WA	(individually packed incl. TWT9253WA)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

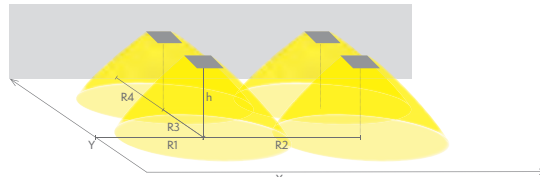
TWT9252WA, TWT9253WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	4,3	5	11	5
4	1,7	4	14	4

NOTE! For escape route lighting we recommend Linespot II Lowbay (TWT99) luminaires, look at p. 154.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT9252WA, TWT9253WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	4,3	5,5	10	10	5,5
4	1,7	6	11	11	6

ZONESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9252WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	185	1 h battery + M	0...+35°C	2/3 x 2,5 mm ² -O-	0,7
Y9252WM	(individually packed incl. TWT9252WM)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

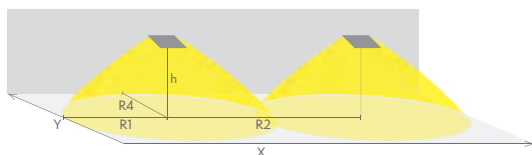


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9253WM	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	185	3 h battery + M	0...+35°C	2/3 x 2,5 mm ² -O-	0,9
Y9253WM	(individually packed incl. TWT9253WM)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



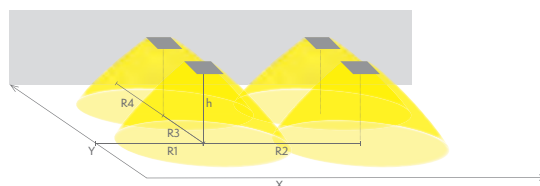
R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWT9252WM, TWT9253WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	4,3	5	11	5
4	1,7	4	14	4

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT9252WM, TWT9253WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	4,3	5,5	10	10	5,5
4	1,7	6	11	11	6

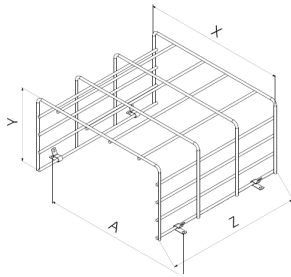
NOTE! For escape route lighting we recommend Linespot II Lowbay (TWT99) luminaires, look at p. 154.

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊖ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 50 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

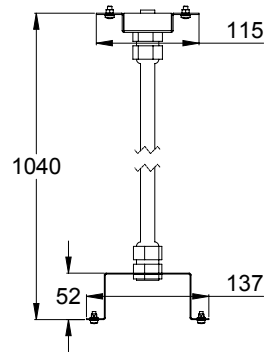
ACCESSORIES

Product code	Product description
TW77504F	Suspension bracket
TW77507B	Shock protecting cover (dimensions: X=320, Y=165, Z=305, A=340)

SHOCK PROTECTING COVER
TW77507B

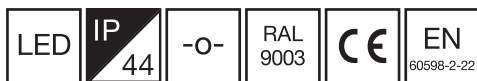


SUSPENSION BRACKET
TW77504F

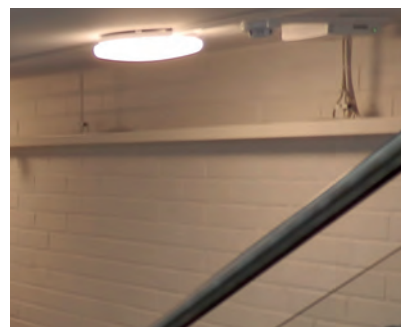


ZONESPOT II MIDBAY

LED EMERGENCY LIGHT FOR SURFACE MOUNTING
IN 2-8 M HIGH OPEN AREAS



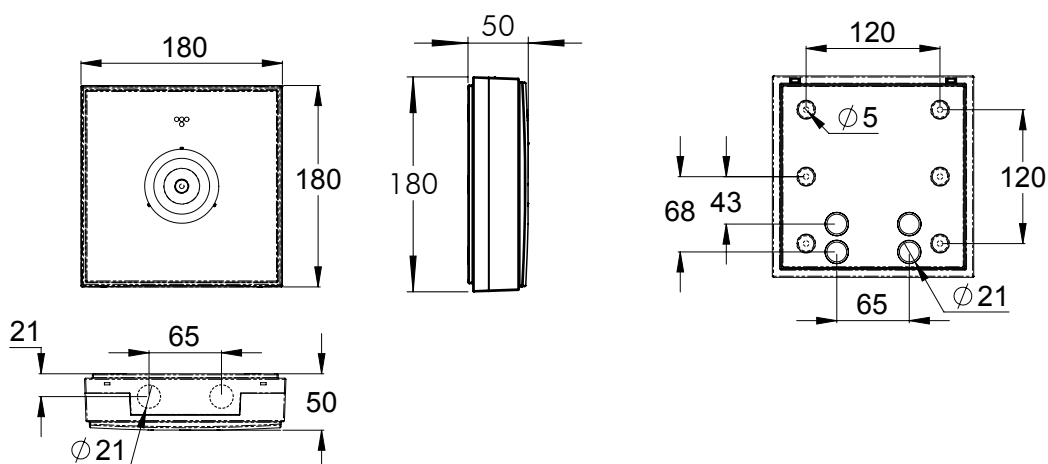
Installation video



Teknoware's Zonespot II Midbay is a surface mounted emergency light for open areas. TWT93/TWS93 model is suitable for areas with 2-8 meter's height. High Output version TWT9356WK can be mounted in up to 14 meter's height. Zonespot II Midbay is easy and fast to install thanks to a separate mounting base, into which the power supply is also connected.

Zonespot II Midbay takes advantage of the latest LED technology. Its optics are designed to provide a broad, uniform lighting pattern, which illuminates the open areas effectively. Zonespot II is also suitable for damp locations.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9371W	24-230 V, 50/60 Hz AC,DC	24 V= 8 VA / 5 W 230 V= 10 VA / 5 W	165	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	0,5
Y9371W	(individually packed incl. TWT9371W)						0,6

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

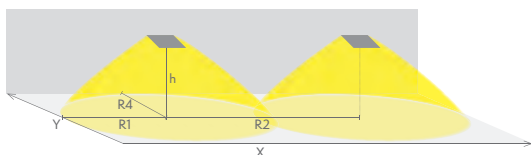


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9351WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	165	CBS / C+ IC	-30... +50°C	2/3 x 2,5 mm ² -o-	0,5
Y9351WK	(individually packed incl. TWT9351WK)						0,6
TWT9356WK	220-240 V, 50/60 Hz AC,DC	22 VA / 12 W	520 HIGH OUTPUT	CBS / C+ IC	-30... +50°C	2/3 x 2,5 mm ² -o-	0,5
Y9356WK	(individually packed incl. TWT9356WK)						0,6

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

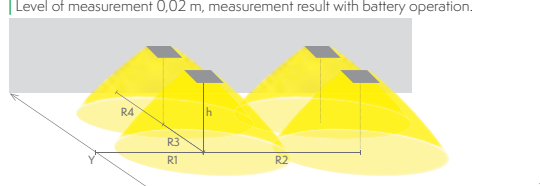
TWT9371W, TWT9351WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	18	2,5	6	2,5
4	8	3	7,5	3
6	3,5	4	9	4
8	2	5	11	5

NOTE! For escape route lighting we recommend Linespot II Midbay (TWT88) luminaires, look at p. 160.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

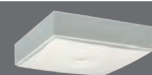
TWT9371W, TWT9351WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	18	3	5	5	3
4	8	3,5	6	6	3,5
6	3,5	4,5	8	8	4,5
8	2	5,5	10	10	5,5

TWT9356WK HIGH OUTPUT

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
3	36	4,5	8	8	4,5
4	21	5	9	9	5
6	11	6,5	12	12	6,5
8	5	7,5	14	14	7,5
10	3	8,5	16	16	8,5
12	2,5	9,5	18	18	9,5
14	1,8	10,5	20	20	10,5

ZONESPOT II MIDBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9392WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9392WA	(individually packed incl. TWS9392WA)						1,0
TWS9392WAC*)	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	74	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9392WAC	(individually packed incl. TWS9392WAC)						1,0

*) Higher luminous flux

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



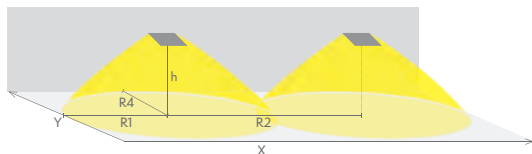
Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9392WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	60	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9392WM	(individually packed incl. TWS9392WM)						1,0
TWS9392WMC*)	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	74	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	0,9
Y9392WMC	(individually packed incl. TWS9392WMC)						1,0

*) Higher luminous flux

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWS9392WM, TWS9392WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	8,5	2	5	2
3	6	2	5,5	2
4	3,5	3	6	3
6	1,5	3	7	3

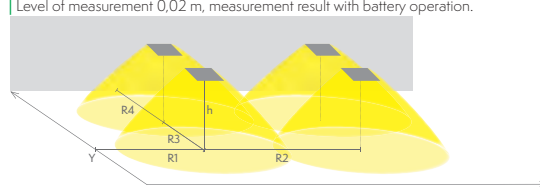
TWS9392WMC, TWS9392WAC

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	11	2	5,5	2
3	7,6	2	5,5	2
4	4,3	3	6	3
6	1,9	3	8,5	3

NOTE! For escape route lighting we recommend Linespot II Midbay (TWT88) luminaires, look at p. 160.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWS9392WM, TWS9392WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	8,5	2	4	4	2
3	6	2	4,5	4,5	2
4	3,5	2	5	5	2
6	1,5	3	6	6	3

TWS9392WMC, TWS9392WAC

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	11	2,5	5	5	2,5
3	7,6	2,5	5	5	2,5
4	4,3	3	6	6	3
6	1,9	3,5	8	8	3,5
8	1,1	3,5	8	8	3,5

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9352WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	165	1 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -O-	0,7
Y9352WA	(individually packed incl. TWT9352WA)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

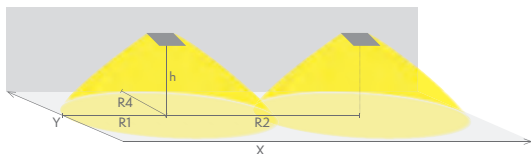


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9353WA	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	165	3 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -O-	0,9
Y9353WA	(individually packed incl. TWT9353WA)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

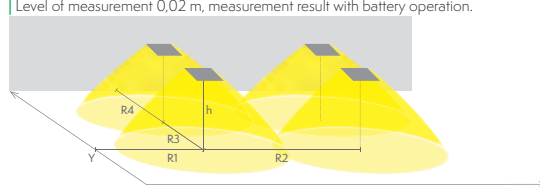
TWT9352WA, TWT9353WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	18	2,5	6	2,5
4	8	3	7,5	3
6	3,5	4	9	4
8	2	5	11	5

NOTE! For escape route lighting we recommend Linespot II Midbay (TWT88) luminaires, look at p. 160.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT9352WA, TWT9353WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	18	3	5	5	3
4	8	3,5	6	6	3,5
6	3,5	4,5	8	8	4,5
8	2	5,5	10	10	5,5

ZONESPOT II MIDBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9352WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	165	1 h battery + M	0...+35°C	2/3 x 2,5 mm ² -O-	0,7
Y9352WM	(individually packed incl. TWT9352WM)						0,8

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

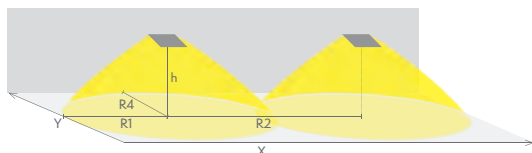


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9353WM	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	165	3 h battery + M	0...+35°C	2/3 x 2,5 mm ² -O-	0,9
Y9353WM	(individually packed incl. TWT9353WM)						1,0

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.i
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

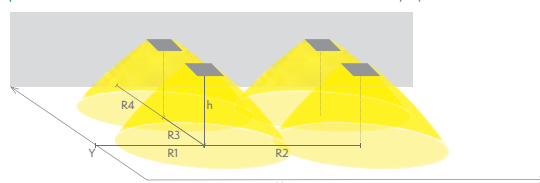
TWT9352WM, TWT9353WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	18	2,5	6	2,5
4	8	3	7,5	3
6	3,5	4	9	4
8	2	5	11	5

NOTE! For escape route lighting we recommend Linespot II Midbay (TWT88) luminaires, look at p. 160.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT9352WM, TWT9353WM

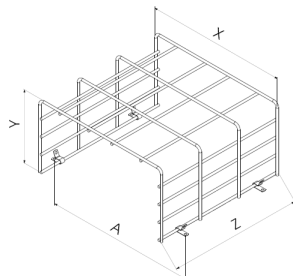
Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	18	3	5	5	3
4	8	3,5	6	6	3,5
6	3,5	4,5	8	8	4,5
8	2	5,5	10	10	5,5

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊖ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 50 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

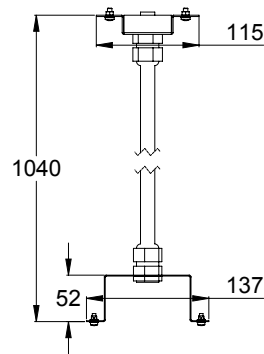
ACCESSORIES

Product code	Product description
TW77504F	Suspension bracket
TW77507B	Shock protecting cover (dimensions: X=320, Y=165, Z=305, A=340)

SHOCK PROTECTING COVER
TW77507B

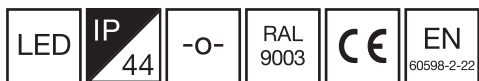


SUSPENSION BRACKET
TW77504F



ZONESPOT II HIGHBAY

HIGH OUTPUT LED EMERGENCY LIGHT FOR SURFACE MOUNTING
IN 6-30 M HIGH OPEN AREAS



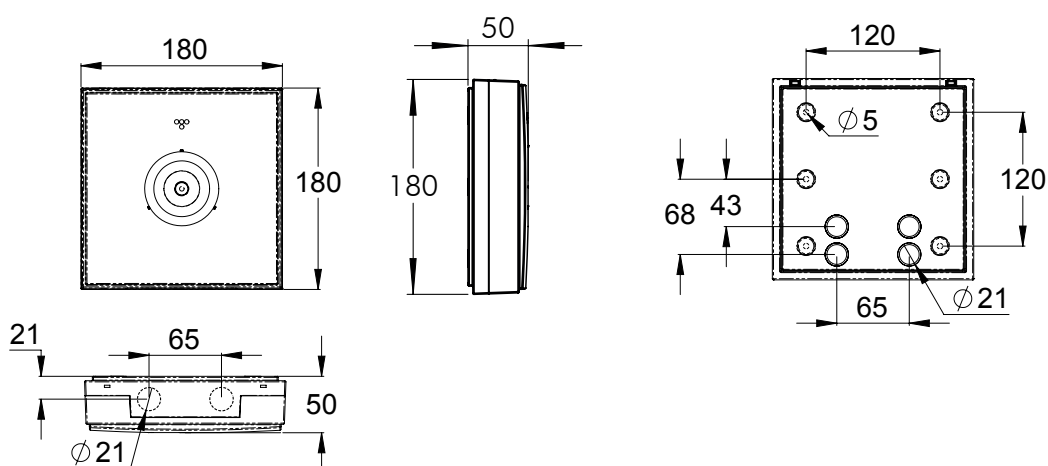
Installation video



Zonespot II Highbay, TWT8456WK, is a High Output emergency light, designed for illuminating 6-30 meter high open spaces. The luminaire is easily surface mounted, thanks to a separate mounting base, into which the power supply is also connected.

Zonespot II Highbay takes advantage of the latest LED technology. Its optics are designed to illuminate open areas effectively, especially in high spaces. Thanks to the IP44 enclosure class, Zonespot II is also suitable for damp locations.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

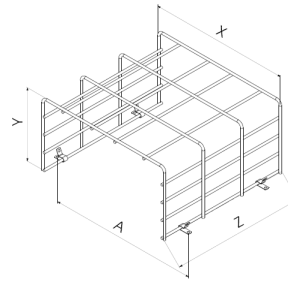


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8456WK	220-240 V, 50/60 Hz AC, DC	22 VA / 12 W	535 HIGH OUTPUT	CBS / C+ IC	-30... +50°C	2/3 x 2,5 mm ² -0-	0,5
Y8456WK	(individually packed incl. TWT8456WK)						0,6

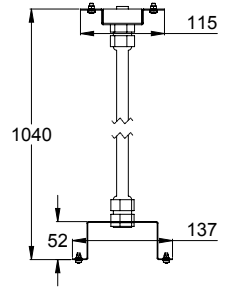
ACCESSORIES

Product code	Product description
TW77504F	Suspension bracket
TW77507B	Shock protecting cover (dimensions: X=320, Y=165, Z=305, A=340)

SHOCK PROTECTING COVER
TW77507B



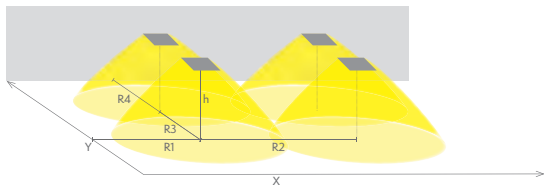
SUSPENSION BRACKET
TW77504F



LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



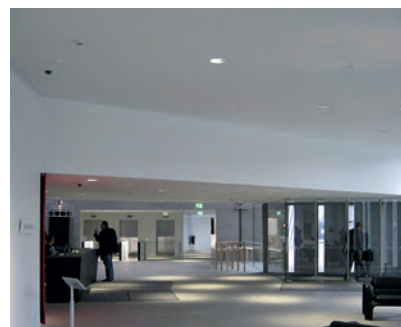
R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT8456WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
6	24	6,5	12	12	6,5
8	13	7,5	14	14	7,5
10	8	8,5	16	16	8,5
12	6	9,5	18	18	9,5
14	4	10,5	20	20	10,5
16	3	11,5	22	22	11,5
18	2,5	11,5	22	22	11,5
20	2	10,5	21	21	10,5
25	1,4	9,5	18	18	9,5
30	1	9,5	18	18	9,5

ZONESPOT II LOWBAY

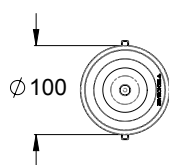
LED EMERGENCY LIGHT FOR RECESS MOUNTING IN OPEN AREAS,
RECESS MOUNTING APERTURE $\varnothing$ 75 MM



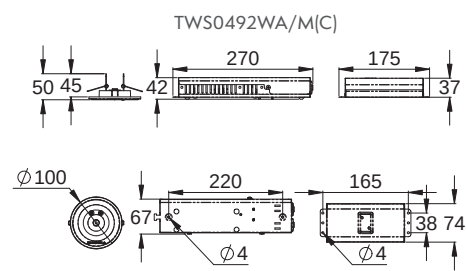
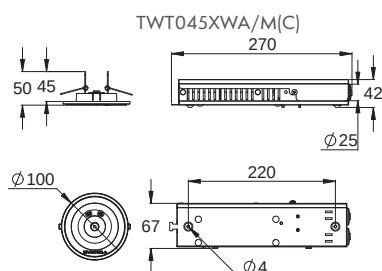
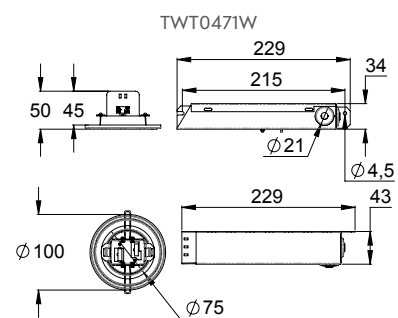
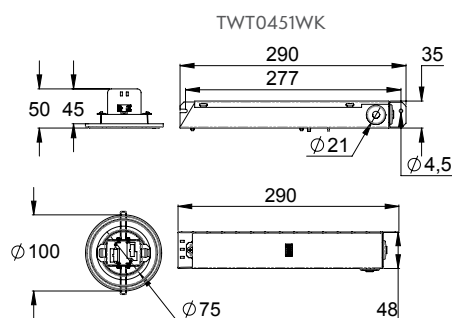
Zonespot II Lowbay is a small and elegant emergency light, for recess mounting. It is specially designed for illuminating open areas. Zonespot II Lowbay takes advantage of the latest LED technology.

Zonespot II Lowbay allows installations with up to 14 meters between luminaires.

DIMENSIONS



Aperture for mounting $\varnothing$ 75 mm



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0471W	24-230 V, 50/60 Hz AC,DC	24 V= 7,5 VA / 4 W 230 V= 11 VA / 4 W	200	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	0,4
Y0471W	(individually packed incl. TWT0471W)						0,5

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

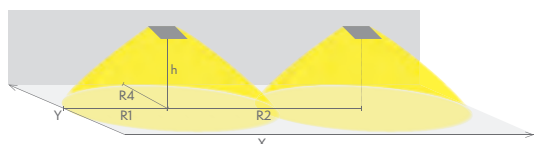


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0451WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	200	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o-	0,4
Y0451WK	(individually packed incl. TWT0451WK)						0,5

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

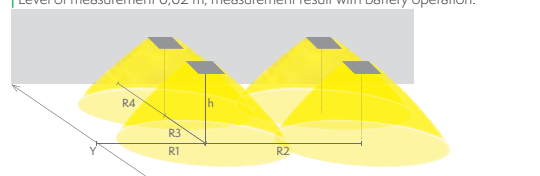
TWT0451WK, TWT0471W

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	4,3	5	11	5
4	1,7	4	14	4

NOTE! For escape route lighting we recommend Linespot II Lowbay (TWT14) luminaires, look at p. 166.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838,
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT0451WK, TWT0471W

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	4,3	5,5	10	10	5,5
4	1,7	6	11	11	6

ZONESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS0492WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	65	1 h Escap + Aalto	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y0492WA	(individually packed incl. TWS0492WA)						0,9
TWS0492WAC *)	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	80	1 h Escap + Aalto	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y0492WAC	(individually packed incl. TWS0492WAC)						0,9

*) Higher luminous flux

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



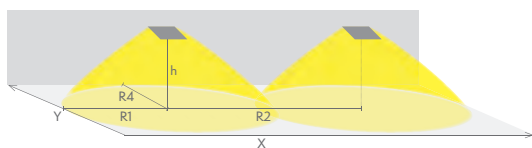
Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS0492WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	65	1 h Escap + M	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y0492WM	(individually packed incl. TWS0492WM)						0,9
TWS0492WMC *)	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	80	1 h Escap + M	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y0492WMC	(individually packed incl. TWS0492WMC)						0,9

*) Higher luminous flux

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWS0492WA, TWS0492WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	1,5	3	7	3
3	1	4	8	4

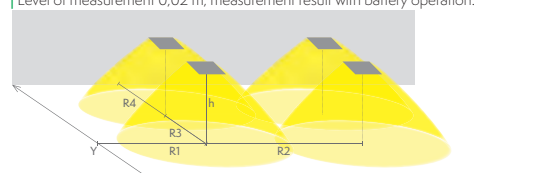
TWS0492WMC, TWS0492WAC

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	1,7	3	8	3
3	1,2	2,5	8	2,5

NOTE! For escape route lighting we recommend Linespot II Lowbay (TWT14) luminaires, look at p. 166.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWS0492WA, TWS0492WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	1,5	3	5	5	3
3	1	4	6,5	6,5	4

TWS0492WMC, TWS0492WAC

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	1,7	4	7,5	7,5	4
3	1,2	4	8	8	4
4	0,7	3	8,5	8,5	3

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0452WA	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	200	1 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -o- ⊕	0,6
Y0452WA	(individually packed incl. TWT0452WA)						0,7

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

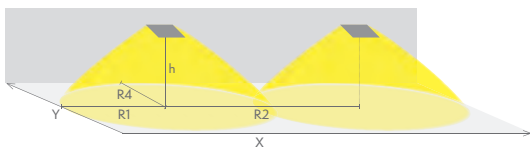


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0453WA	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	200	3 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -o- ⊕	0,8
Y0453WA	(individually packed incl. TWT0453WA)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

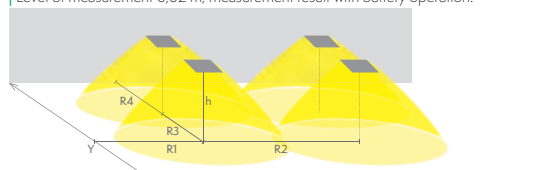
TWT0452WA, TWT0453WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	4,3	5	11	5
4	1,7	4	14	4

NOTE! For escape route lighting we recommend Linespot II Lowbay (TWT14) luminaires, look at p. 166.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT0452WA, TWT0453WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	4,3	5,5	10	10	5,5
4	1,7	6	11	11	6

ZONESPOT II LOWBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0452WM	220-240 V, 50/60 Hz AC	3 VA during boost charge 2 VA during trickle charge	200	1 h battery + M	0...+35°C	3 x 2,5 mm ² -o-	0,6
Y0452WM	(individually packed incl. TWT0452WM)						0,7

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

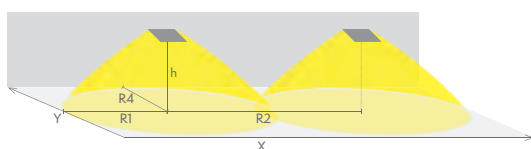


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0453WM	220-240 V, 50/60 Hz AC	6 VA during boost charge 5,5 VA during trickle charge	200	3 h battery + M	0...+35°C	3 x 2,5 mm ² -o-	0,8
Y0453WM	(individually packed incl. TWT0453WM)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

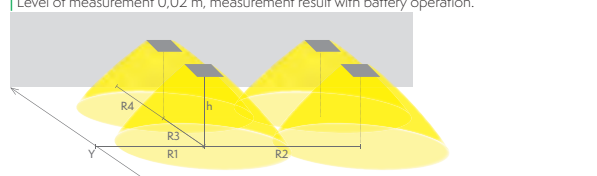
TWT0452WM, TWT0453WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	4,3	5	11	5
4	1,7	4	14	4

NOTE! For escape route lighting we recommend Linespot II Lowbay (TWT14) luminaires, look at p. 166.

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT0452WM, TWT0453WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	4,3	5,5	10	10	5,5
4	1,7	6	11	11	6

 = Protection class of luminaire is 1
  =Protection rating
  =Aalto Control compatible (incl. Lumi Test)
  =compliant with the 850 glow wire test
 = Protection class of luminaire is 2
 =Colour of the body
 = Self-contained luminaire with Lumi test self-testing
 =Compatible with Intelligent Controller
 = Protection class of luminaire is 3
 =Viewing distance
 = Self-contained luminaire with 1 h super capacitor backup
 = Centrally supplied
 = Luminaire is suitable for through-wiring
 =LED as a light source
 =Compatible with Tapsa Control Central Battery Unit and Local Controller

ACCESSORIES

Product code	Product description
TMT389	Gasket ring, through which the visible parts of the light will achieve IP44 protection rating
XJ0414	Extension wire set for self-contained luminaires, 50 cm

SOLID ZONE LOWBAY

IP65 LED EMERGENCY LIGHT FOR OPEN AREAS



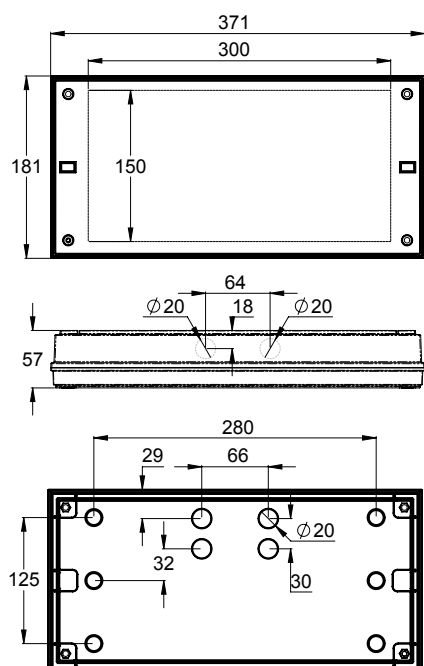
SOLID Zone Lowbay has been developed for the emergency lighting of open areas.

High enclosure class (IP65) ensures that the luminaire is completely dust proof and water proof.

SOLID Zone Lowbay is suitable for example for industrial premises and parking halls. ESCAP and centrally supplied luminaires are also suitable for outdoor use. The SOLID luminaire uses long lasting leds as its light source.

Special attention has been paid to the design, for easy installation.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

P20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3271W	24-230 V, 50/60 Hz AC,DC	24 V= 7,8 VA / 5,5 W 230 V= 4,5 VA / 6,5 W	460	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -0-	1,1
Y3271W	(individually packed incl. TWT3271W)						1,3

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

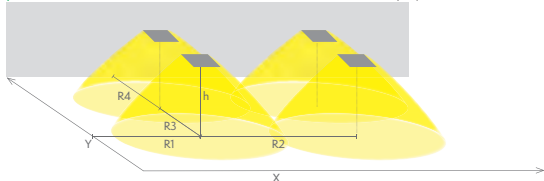


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3251WK	220-240 V, 50/60 Hz AC	14 VA / 8,5 W	460	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -0-	1,1
Y3251WK	(individually packed incl. TWT3251WK)						1,3

LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838,
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) R3 installation distance between lights (Y axis)
 R2 installation distance between lights (X axis) R4 distance from wall (Y axis)

TWT3271W, TWT3251WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	9	6,5	12	12	6,5
3	6	7	13	13	7
4	3,5	7,5	14	14	7,5
6	1,5	8	15	15	8

SOLID ZONE LOWBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS3292WA	220-240 V, 50/60 Hz AC	3 VA	94	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y3292WA	(individually packed incl. TWS3292WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS3292WM	220-240 V, 50/60 Hz AC	3 VA	94	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y3292WM	(individually packed incl. TWS3292WM)						

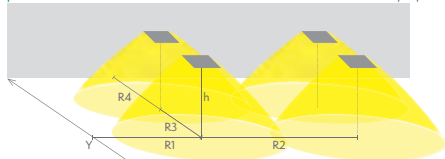
LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.

0,5 m edge district is considered in the table.

Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis) | R4 distance from wall (Y axis)

TWS3292WA, TWS3292WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	2	5	9	9	5
3	1,5	4	9,5	9,5	4

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 °C = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3252WA	220-240 V, 50/60 Hz AC	2,7 VA	460	1 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y3252WA	(individually packed incl. TWT3252WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

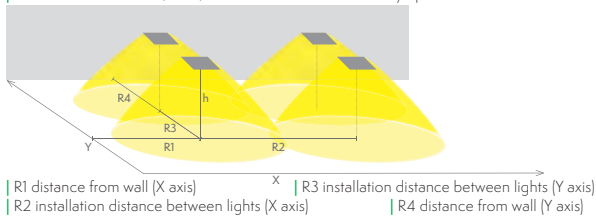


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3253WA	220-240 V, 50/60 Hz AC	4,1 VA	460	3 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y3253WA	(individually packed incl. TWT3253WA)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838,
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



TWT3252WA, TWT3253WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	9	6,5	12	12	6,5
3	6	7	13	13	7
4	3,5	7,5	14	14	7,5
6	1,5	8	15	15	8

SOLID ZONE LOWBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3252WM	220-240 V, 50/60 Hz AC	2,6 VA	460	1 h battery + M	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y3252WM	(individually packed incl. TWT3252WM)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING



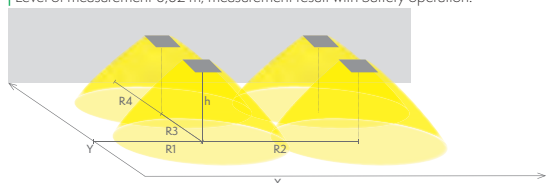
Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3253WM	220-240 V, 50/60 Hz AC	3,8 VA	460	3 h battery + M	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y3253WM	(individually packed incl. TWT3253WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.

Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R3 installation distance between lights (Y axis)
R2 installation distance between lights (X axis) | R4 distance from wall (Y axis)

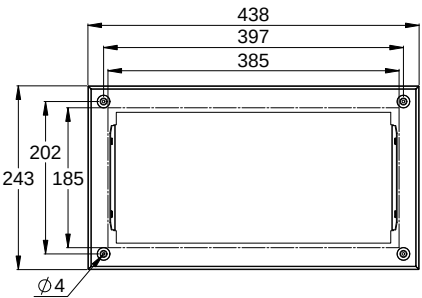
TWT3252WM, TWT3253WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	9	6,5	12	12	6,5
3	6	7	13	13	7
4	3,5	7,5	14	14	7,5
6	1,5	8	15	15	8

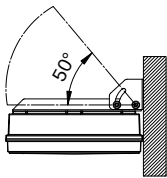
ACCESSORIES

Product code	Product description
TWT3001	Recess mounting frame
TWT3002	Wall bracket
TWT3003	Flag bracket
TWT3004	Ceiling bracket

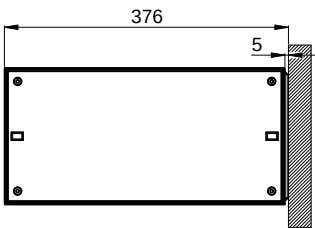
RECESS MOUNTING FRAME
TWT3001



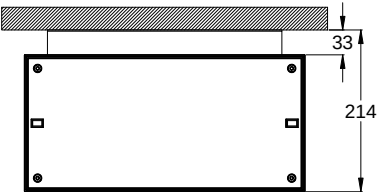
WALL MOUNTING
WITH WALL BRACKET TWT3002



FLAG MOUNTING WITH
FLAG BRACKET TWT3003



WALL MOUNTING
WITH WALL BRACKET TWT3004



SOLID LINE LOWBAY

IP65 LED EMERGENCY LIGHT FOR ESCAPE ROUTES

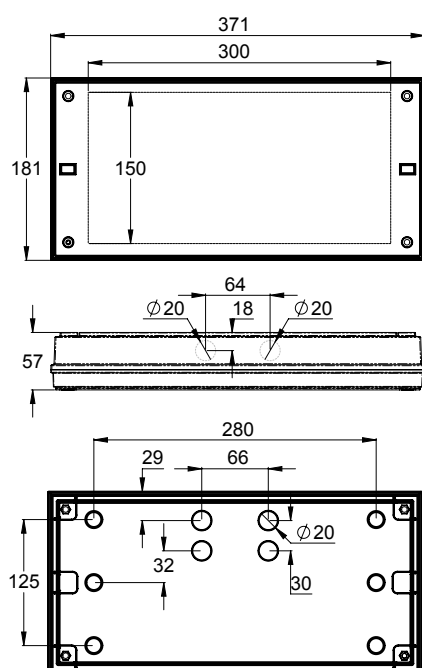


SOLID Line Lowbay are designed for escape route emergency lighting. The luminaire is completely dust proof and water proof, so for example it is suitable for industrial premises and parking halls. ESCAP and centrally supplied luminaires are also suitable for outdoor use.

The SOLID luminaire uses long lasting leds as its light source.

Special attention has been paid to the design, for easy installation

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 50 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4271W	24-230 V, 50/60 Hz AC,DC	24 V= 7,8 VA / 5,5 W 230 V= 14,5 VA / 6,5 W	220	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	1,1
Y4271W	(individually packed incl. TWT4271W)						1,3

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

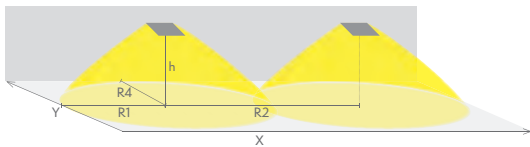


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4251WK	220-240 V, 50/60 Hz AC	10 VA / 6 W	220	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -o-	1,1
Y4251WK	(individually packed incl. TWT4251WK)						1,3

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT4271W, TWT4251WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	8	8	19	1
3	5,5	9	21	1
4	3	10	25	1

SOLID LINE LOWBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS4292WA	220-240 V, 50/60 Hz AC	3 VA	90	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -0-	1,5
Y4292WA	(individually packed incl. TWS4292WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING

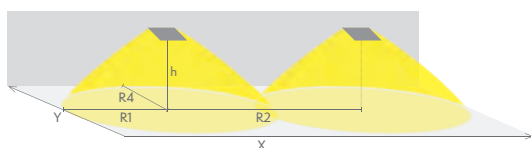


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS4292WM	220-240 V, 50/60 Hz AC	3 VA	90	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -0-	1,5
Y4292WM	(individually packed incl. TWS4292WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)

R2 installation distance between lights (X axis)

R4 distance from wall (Y axis)

TWS4292WA, TWS4292WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	2,5	7	16	1
3	1,5	8	18	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4252WA	220-240 V, 50/60 Hz AC	2,6 VA	220	1 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y4252WA	(individually packed incl. TWT4252WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

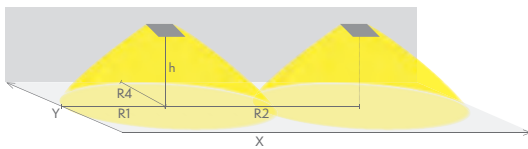


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4253WA	220-240 V, 50/60 Hz AC	3,5 VA	220	3 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y4253WA	(individually packed incl. TWT4253WA)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

| Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 | Level of measurement 0,02 m, measurement result with battery operation.



| R1 distance from wall (X axis)
 | R2 installation distance between lights (X axis)
 | R4 distance from wall (Y axis)

TWT4252WA, TWT4253WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	8	8	19	1
3	5,5	9	21	1
4	3	10	25	1

SOLID LINE LOWBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4252WM	220-240 V, 50/60 Hz AC	2,1 VA	220	1 h battery + M	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y4252WM	(individually packed incl. TWT4252WM)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

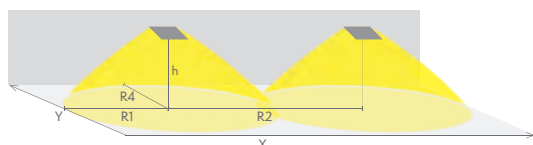


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4253WM	220-240 V, 50/60 Hz AC	3,3 VA	220	3 h battery + M	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y4253WM	(individually packed incl. TWT4253WA)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)

R2 installation distance between lights (X axis)

R4 distance from wall (Y axis)

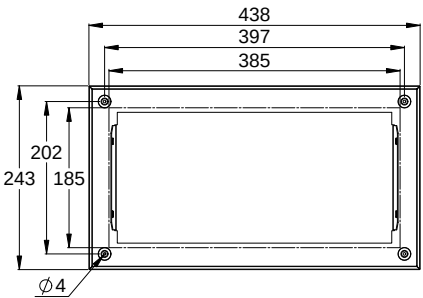
TWT4253WA, TWT4252WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	8	8	19	1
3	5,5	9	21	1
4	3	10	25	1

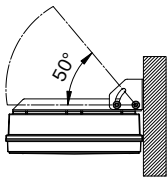
ACCESSORIES

Product code	Product description
TWT3001	Recess mounting frame
TWT3002	Wall bracket
TWT3003	Flag bracket
TWT3004	Ceiling bracket

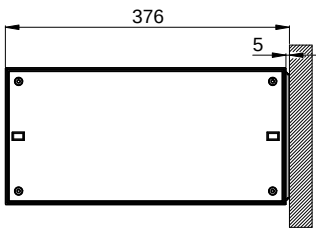
RECESS MOUNTING FRAME
TWT3001



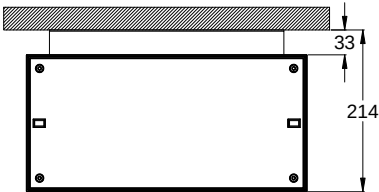
WALL MOUNTING
WITH WALL BRACKET TWT3002



FLAG MOUNTING WITH
FLAG BRACKET TWT3003



WALL MOUNTING
WITH WALL BRACKET TWT3004



SOLID ZONE MIDBAY

IP65 LED EMERGENCY LIGHT FOR OPEN AREAS

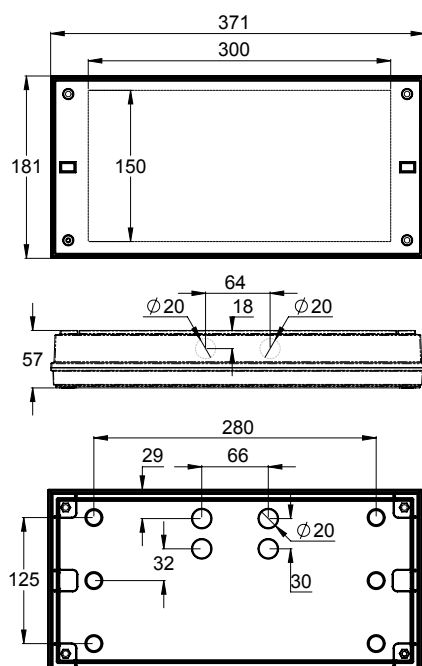


Designed for emergency lighting in open areas, SOLID Zone Midbay is an emergency light with a IP65 enclosure.

The luminaire is completely dust proof and water proof, so it is suitable for example for industrial premises and parking halls. ESCAP and centrally supplied luminaires are also suitable for outdoor use.

The SOLID luminaire uses long lasting leds as its light source. Special attention has been paid to the design, for easy installation.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3671W	24-230 V, 50/60 Hz AC,DC	24 V= 7,5 VA / 4,5 W 230 V= 10 VA / 5 W	450	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	1,1
Y3671W	(individually packed incl. TWT3271W)						1,3

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

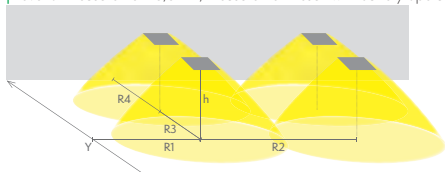


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3651WK	220-240 V, 50/60 Hz AC	14 VA / 8,5 W	450	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -o-	1,1
Y3651WK	(individually packed incl. TWT3651WK)						1,3

LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838,
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT3671W, TWT3651WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
4	25	5,5	10	10	5,5
6	11	6,5	12	12	6,5
8	6	7,5	14	14	7,5
10	4	7,5	14	14	7,5
12	2,5	8	15	15	8
14	2	8,5	16	16	8,5
16	1,5	8,5	16	16	8,5

SOLID ZONE MIDBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS3692WA	220-240 V, 50/60 Hz AC	3 VA	93	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -0-	1,5
Y3692WA	(individually packed incl. TWS3692WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING



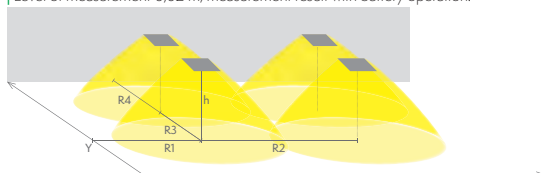
Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS3692WM	220-240 V, 50/60 Hz AC	3 VA	93	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -0-	1,5
Y3692WM	(individually packed incl. TWS3692WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.

Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R2 installation distance between lights (X axis) | R3 installation distance between lights (Y axis) | R4 distance from wall (Y axis)

TWS3692WA, TWS3692WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	9	2	6	6	2
3	6,5	2	6,5	6,5	2
4	4	2,5	7	7	2,5
6	2	3	8,5	8,5	3
8	1	3,5	9	9	3,5

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 °C = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3652WA	220-240 V, 50/60 Hz AC	2,7 VA	450	1 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -0-	1,5
Y3652WA	(individually packed incl. TWT3652WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

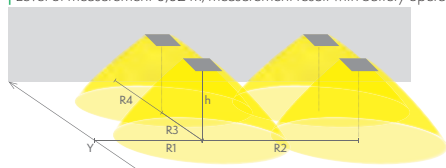


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3653WA	220-240 V, 50/60 Hz AC	4,1 VA	450	3 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -0-	1,5
Y3653WA	(individually packed incl. TWT3653WA)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838,
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis) | R3 installation distance between lights (Y axis)
 R2 installation distance between lights (X axis) | R4 distance from wall (Y axis)

TWT3652WA, TWT3653WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
4	25	5,5	10	10	5,5
6	11	6,5	12	12	6,5
8	6	7,5	14	14	7,5
10	4	7,5	14	14	7,5
12	2,5	8	15	15	8
14	2	8,5	16	16	8,5
16	1,5	8,5	16	16	8,5

SOLID ZONE MIDBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3652WM	220-240 V, 50/60 Hz AC	2,6 VA	450	1 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y3652WM	(individually packed incl. TWT3652WM)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING



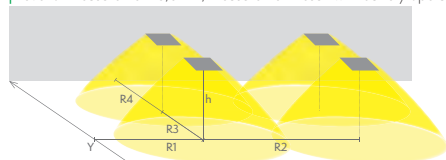
Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT3653WM	220-240 V, 50/60 Hz AC	3,8 VA	450	3 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y3653WM	(individually packed incl. TWT3653WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
0,5 m edge district is considered in the table.

Level of measurement 0,02 m, measurement result with battery operation.



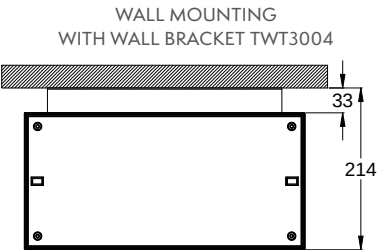
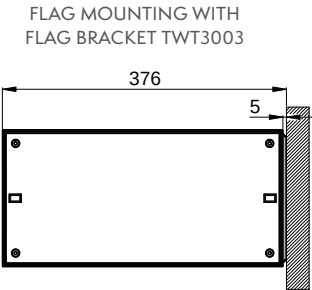
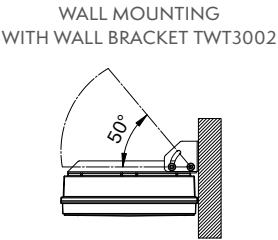
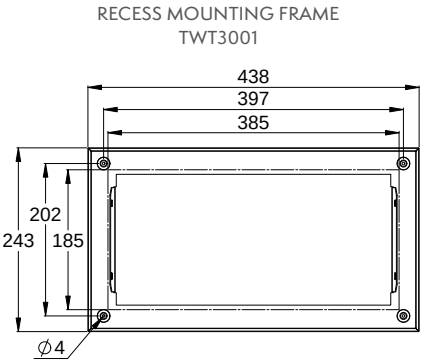
R1 distance from wall (X axis) | R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis) | R4 distance from wall (Y axis)

TWT3652WM, TWT3653WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
4	25	5,5	10	10	5,5
6	11	6,5	12	12	6,5
8	6	7,5	14	14	7,5
10	4	7,5	14	14	7,5
12	2,5	8	15	15	8
14	2	8,5	16	16	8,5
16	1,5	8,5	16	16	8,5

ACCESSORIES

Product code	Product description
TWT3001	Recess mounting frame
TWT3002	Wall bracket
TWT3003	Flag bracket
TWT3004	Ceiling bracket



SOLID LINE MIDBAY

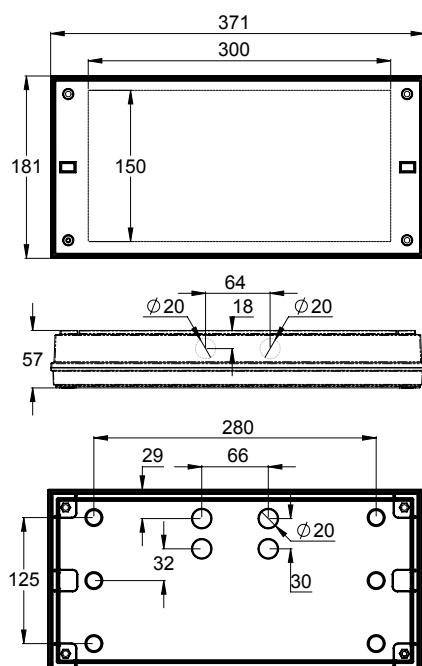
IP65 LED EMERGENCY LIGHT FOR ESCAPE ROUTES



SOLID Line Midbay is designed for escape route emergency lighting. The luminaire is completely dust proof and water proof, so it is suitable for example for industrial premises and parking halls. ESCAP and centrally supplied luminaires are also suitable for outdoor use.

The SOLID luminaire uses long lasting leds as its light source. Special attention has been paid to the design, for easy installation.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring

IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source

Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller

850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4371W	24-230 V, 50/60 Hz AC,DC	24 V= 7,5 VA / 4,5 W 230 V= 10 VA / 5 W	240	CBS	-30... +50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	1,1
Y4371W	(individually packed incl. TWT4371W)						1,3

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

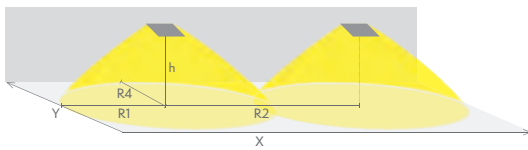


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4351WK	220-240 V, 50/60 Hz AC	10 VA / 6 W	240	CBS / C + IC	-30... +50°C	2/3 x 2,5 mm ² -o-	1,1
Y4351WK	(individually packed incl. TWT3251WK)						1,3

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT4371W, TWT4351WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	45	5	10	1
3	31	5,5	11	1
4	17,5	6	15	1
6	7,5	9	18	1
8	4	9	19	1
10	2	10	20	1

SOLID LINE MIDBAY



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS4392WA	220-240 V, 50/60 Hz AC	3 VA	92	1 h Escap + Aalto	-25... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y4392WA	(individually packed incl. TWS4392WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING

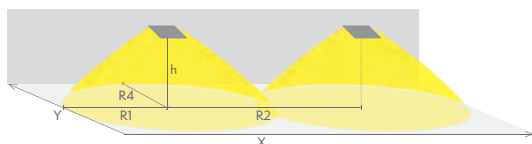


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS4392WM	220-240 V, 50/60 Hz AC	3 VA	92	1 h Escap + M	-25... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y4392WM	(individually packed incl. TWS4392WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWS4392WA, TWS4392WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	17	3,5	9	1
3	12	4	10	1
4	6,5	4	11	1
6	2,5	5	12	1
8	1,5	4	12	1

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4352WA	220-240 V, 50/60 Hz AC	2,6 VA	240	1 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y4352WA	(individually packed incl. TWT4352WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

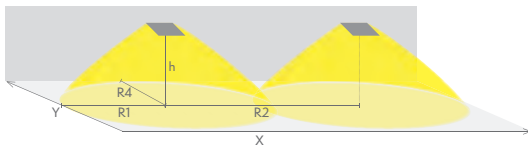


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4353WA	220-240 V, 50/60 Hz AC	3,5 VA	240	3 h battery + Aalto	0... +35°C	2/3 x 2,5 mm ² -o-	1,5
Y4353WA	(individually packed incl. TWT4353WA)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT4352WA, TWT4353WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	45	5	10	1
3	31	5,5	11	1
4	17,5	6	15	1
6	7,5	9	18	1
8	4	9	19	1
10	2	10	20	1

SOLID LINE MIDBAY



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4352WM	220-240 V, 50/60 Hz AC	2,1 VA	240	1 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y4352WM	(individually packed incl. TWT4352WM)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

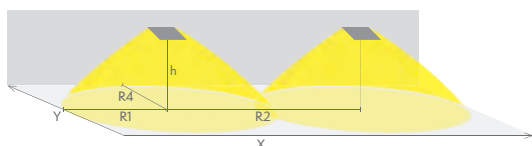


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT4353WM	220-240 V, 50/60 Hz AC	3,3 VA	240	3 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y4353WM	(individually packed incl. TWT4353WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)

R2 installation distance between lights (X axis)

R4 distance from wall (Y axis)

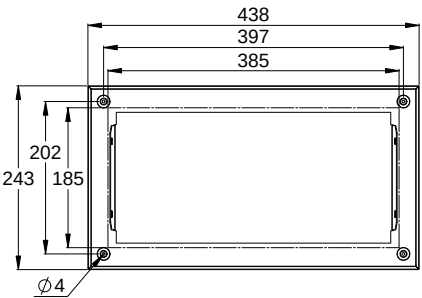
TWT4352WM, TWT4353WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	45	5	10	1
3	31	5,5	11	1
4	17,5	6	15	1
6	7,5	9	18	1
8	4	9	19	1
10	2	10	20	1

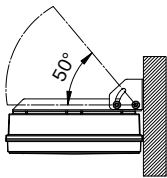
ACCESSORIES

Product code	Product description
TWT3001	Recess mounting frame
TWT3002	Wall bracket
TWT3003	Flag bracket
TWT3004	Ceiling bracket

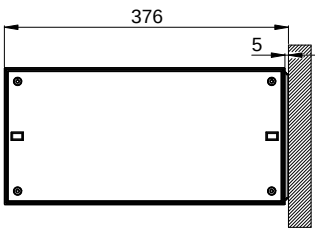
RECESS MOUNTING FRAME
TWT3001



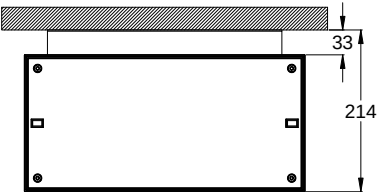
WALL MOUNTING
WITH WALL BRACKET TWT3002



FLAG MOUNTING WITH
FLAG BRACKET TWT3003

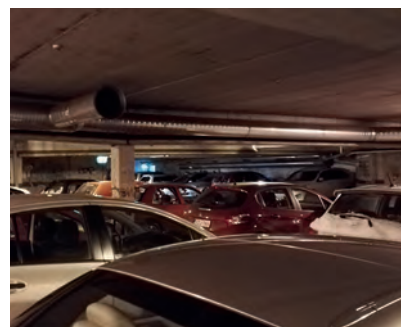


WALL MOUNTING
WITH WALL BRACKET TWT3004



SAFE 82

LED EMERGENCY LIGHT WITH AN INSTALLATION HEIGHT OF UP TO 20 M,
CEILING AND WALL MOUNTING AS STANDARD

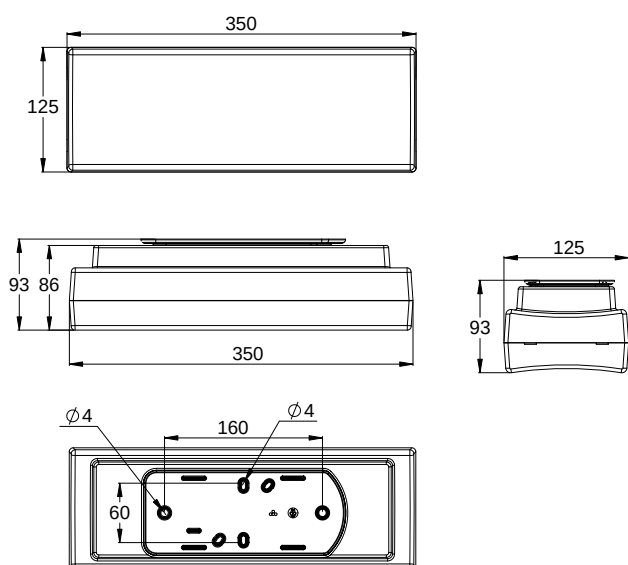


SAFE 82 is a high ceiling area LED emergency light, with ceiling and wall mounting as standard. SAFE 82 can be installed at a height of 4-20 meters.

SAFE 82 is particularly easy and quick to install thanks to a separate mounting plate.

SAFE 82 family of luminaires are splash water proof and suitable for damp areas and, for example, parking halls and outdoor roofed shelters.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 3000 = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8251WH	220-240 V, 50/60 Hz AC, DC	16 VA / 14 W	1005	CBS	-30... +50°C	3 x 2,5 mm ² -o-	0,9
Y8251WH	(individually packed incl. TWT8251WH)						

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

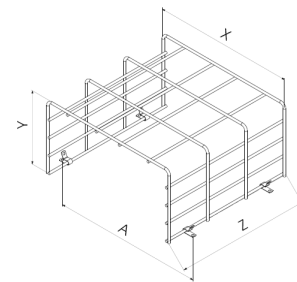


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8251WKH	220-240 V, 50/60 Hz AC, DC	17 VA / 15 W	1005	CBS / C	-30... +50°C	3 x 2,5 mm ² -o-	0,9
Y8251WKH	(individually packed incl. TWT8251WKH)						

ACCESSORIES

Product code	Product description
TW77508B	Shock protecting covers (dims: X=220, Y=120, Z=305, A=240)

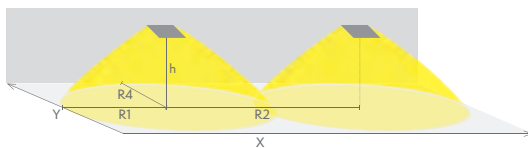
SHOCK PROTECTING COVER
TW77508B



LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



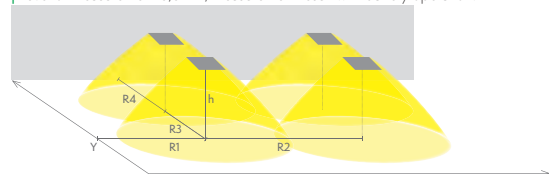
R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT8251WH, TWT8251WKH

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
4	32	8	18	6,5
6	14	9	22	8,5
8	8	9	24	8,5
10	5	9	24	8

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



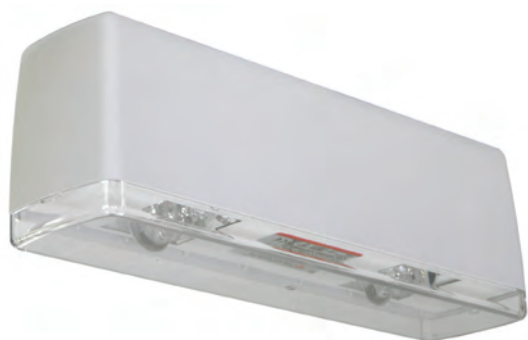
R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT8251WH, TWT8251WKH

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
4	32	10,2	14	14	7,5
6	14	11,7	16	16	8,5
8	8	13,2	16	16	8,5
10	5	13,2	16	16	8,5
12	3	13,2	16	16	8,5
14	2,5	13,2	16	16	8,5
16	2	10	14	14	7
18	1,5	8	12	12	6
20	1	7	8	8	5

SAFE 6

A PLASTIC BODIED LED EMERGENCY LIGHT FOR LOW TO HIGH CEILING AREAS, CEILING, WALL AND FLAG MOUNTING AS STANDARD



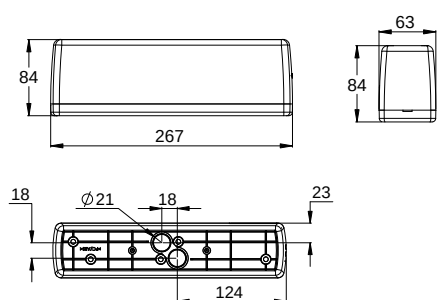
SAFE 6 is Teknoware's LED emergency light for areas with 2,5-10 meters high ceilings. The plastic bodied emergency light can be ceiling, wall and flag mounted.

SAFE 6 is splash proof, so the luminaires are suitable for damp locations, for example for parking hall and outdoor roofed shelters.

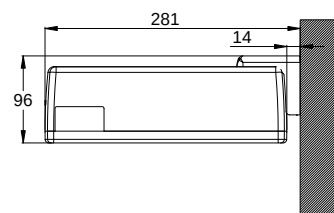
SAFE 6 emergency light is suitable for open areas. It also works as emergency light for escape routes with a separate lens set.

DIMENSIONS

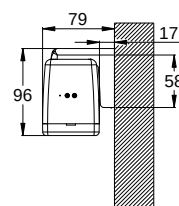
CEILING MOUNTING



FLAG MOUNTING



WALL MOUNTING



⊕ = Protection class of luminaire is 1
 ⊕ = Protection class of luminaire is 2
 ⊕ = Protection class of luminaire is 3
 ⊕ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 Col = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0671W	24-230 V, 50/60 Hz AC, DC	24 V=9 VA /8 W 230 V=15 VA /6,5 W	345 (with lens 315)	CBS	-30... +50°C	24 V=2 x 2,5 mm ² 230 V=3 x 2,5 mm ² -o- ⊕	1,0
Y0671W	(individually packed incl. TWT0671W)						

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

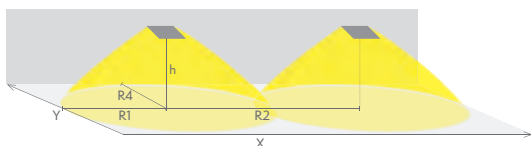


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0651WK	220-240 V, 50/60 Hz AC, DC	13 VA / 7,5 W	345 (with lens 315)	CBS / C + IC	-30... +50°C	3 x 2,5 mm ² -o- ⊕	1,0
Y0651WK	(individually packed incl. TWT0651WK)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWT0651WK, TWT0671W (light without lens)

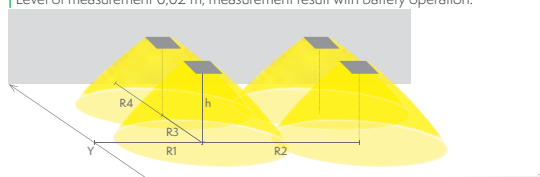
Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	18	4,7	11	3,9
4	7	5	13	5,2
6	3,1	4,8	14	4,8
8	1,7	2,5	13	2,1

TWT0651WK, TWT0671W (light with lens)

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	38	3,8	12	2,5
4	14,8	4	14	2,5
6	6,6	5,2	15	2,5
8	3,7	5,8	16,5	2,5
10	2,4	6,2	19	2,5

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT0651WK, TWT0671W (light without lens)

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	18	6,2	6	6	4,6
4	7	7,4	8	8	6,6
6	3,1	7,6	10	10	7,5
8	1,7	7,6	10	10	7,5

TWT0651WK, TWT0671W (light with lens)

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	38	8	5,5	5,5	3,5
4	14,8	9,3	6	6	4
6	6,6	10,5	6	6	4
8	3,7	11	6	6	4
10	2,4	12,7	8	8	4



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0652WA	220-240 V, 50/60 Hz AC	3,3 VA	125 (with lens 115)	1 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -o-	1,0
Y0652WA	(individually packed incl. TWT0652WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING

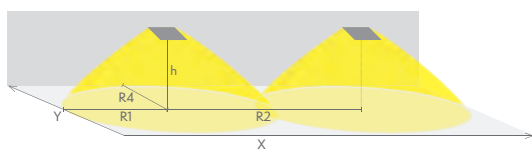


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT0652WM	220-240 V, 50/60 Hz AC	3,3 VA	125 (with lens 115)	1 h battery + M	0... +35°C	3 x 2,5 mm ² -o-	1,0
Y0652WM	(individually packed incl. TWT0652WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



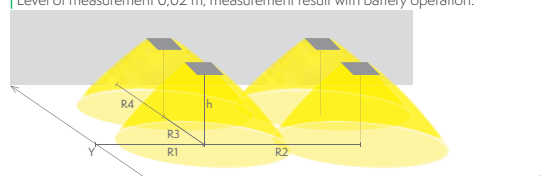
R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT0652WA, TWT0652WM (light with lens)

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	21	3,5	9,5	1
4	8	4,5	11	1
6	3,6	5,5	13	1

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

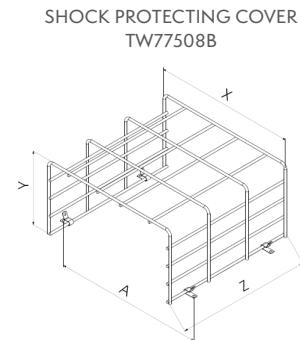
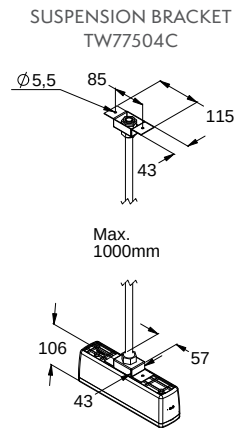
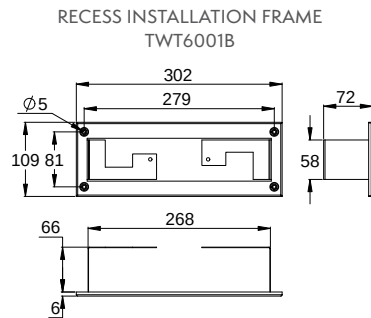
TWT0652WA, TWT0652WM (light without lens)

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	5,8	3	5	5	3
4	2,2	3,5	6	6	3,5

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 Bk = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 °C = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

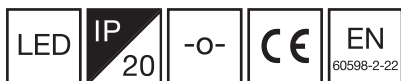
ACCESSORIES

Product code	Product description
TW77504C	Suspension bracket (white) with 1 m shaft Ø 16 mm
TW77504D	Suspension bracket (white) without shaft
TWT6001B	Recess mounting frame (white)
XWT0655	Lens set
TW77508B	Shock protecting cover (dimensions: X=220, Y=120, Z=305, A=240)



TRISPOT TWT75 & TWT76

COMPACT, RECESS MOUNTED LED EMERGENCY LIGHT,
RECESS MOUNTING APERTURE Ø 60 MM



EMERGENCY LIGHT FOR HIGH MOUNTING TWT75XX EMERGENCY LIGHT FOR LOW AND OPEN AREAS TWT76XX

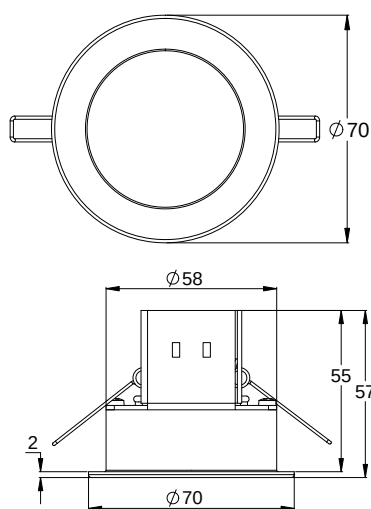


Trispot LED emergency light is compact and stylish. It has a machined and anodized aluminium body, which gives a special exemplary appearance.

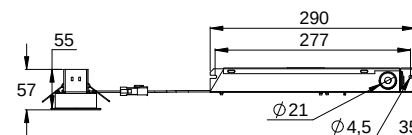
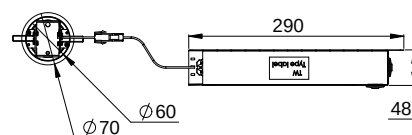
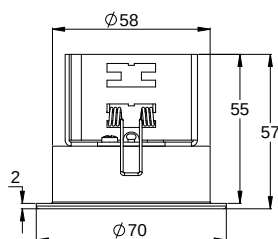
TWT75 is designed to illuminate particularly high areas. It uses the latest LED technology. The luminaires lighting pattern illuminates open areas effectively and allows for a high installation height.

Low areas and open spaces suit TWT76, whose optics are designed to provide a broad and uniform light pattern.

DIMENSIONS



Aperture for mounting Ø 60 mm



Length of the cable 450 mm

CENTRALLY SUPPLIED LUMINAIRES

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

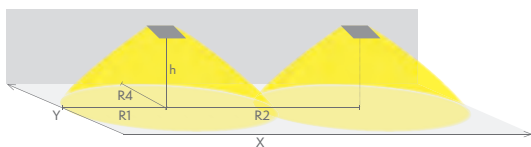


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT7551WK	220-240 V, 50/60 Hz AC, DC	15,3 VA / 9,5 W	350	CBS / C	-30... +50°C	3 x 2,5 mm ² -0- ⊕	0,4
Y7551WK	(individually packed incl. TWT7551WK)						0,5
TWT7651WK	220-240 V, 50/60 Hz AC, DC	15,3 VA / 9,5 W	360	CBS / C	-30... +50°C	3 x 2,5 mm ² -0- ⊕	0,4
Y7651WK	(individually packed incl. TWT7651WK)						0,5

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT7551WK

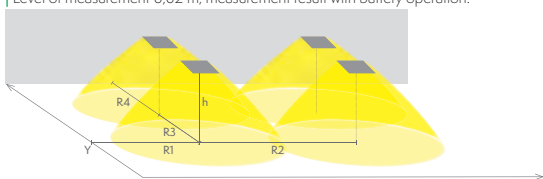
Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	240	2,5	6	2,5
4	95	3,5	9	3,5
6	42	4,5	11	4,5
8	23	6	13	6
10	15	5	14	5

TWT7651WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	25	4,5	10	4,5
4	10	4,5	12	4,5
6	4,5	5	14	5
8	2,5	5	14	5

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT7551WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	240	2,5	4	4	2,5
4	95	3,5	7	7	3,5
6	42	4,5	8	8	4,5
8	23	5,5	10	10	5,5
10	15	5,5	11	11	5,5
12	10	6	12	12	6
14	8	7,5	13	13	7,5
16	6	8	14	14	8
18	5	8	14	14	8
20	4	8	14	14	8

TWT7651WK

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	25	4	7	7	4
4	10	5	9	9	5
6	4,5	6	11	11	6
8	2,5	6	10	10	6

SLIMSPOT

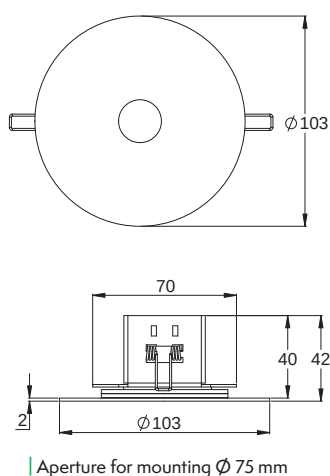
COMPACT, RECESS MOUNTED LED EMERGENCY LIGHT,
RECESS MOUNTING APERTURE $\varnothing$ 75 MM



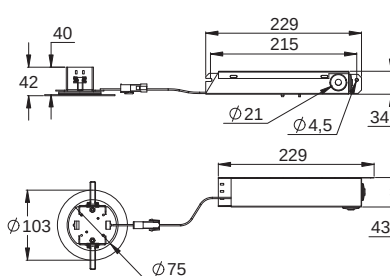
Slimspot is a recessed LED emergency light, which, thanks to its compact size and straight-line design blends seamlessly into the roof structure. The luminaires do not therefore stand out from the area's architecture.

Slimspot uses the latest LED technology and is an energy efficient emergency light. The optics have been designed in such a way, that the LED luminaire does not have a disturbing bright central point of light.

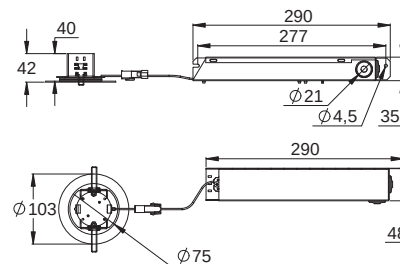
DIMENSIONS



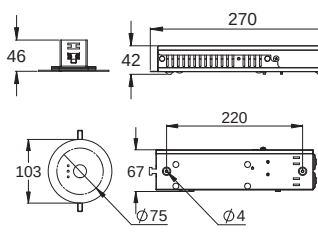
TWT9771W



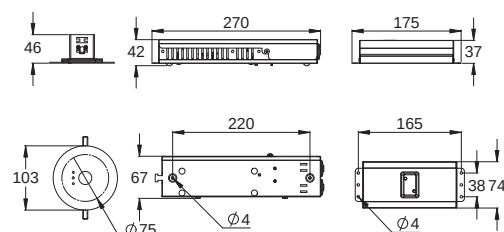
TWT9751WK



TWT9752WX/TWT9753WX



TWS9792WX



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

24-230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9771W	24-230 V, 50/60 Hz AC,DC	24 V= 7,5 VA / 4 W 230 V=11 VA / 4 W	155	CBS	-30...+50°C	24 V= 2 x 2,5 mm ² 230 V= 3 x 2,5 mm ² -o-	0,4
Y9771W	(individually packed incl. TWT9771W)						0,5

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

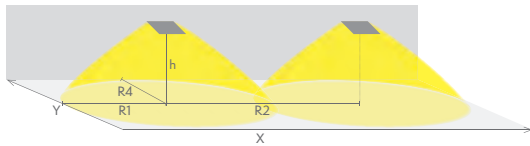


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9751WK	220-240 V, 50/60 Hz AC,DC	10 VA / 5,5 W	155	CBS/ C + IC	-30...+50°C	3 x 2,5 mm ² -o-	0,4
Y9751WK	(individually packed incl. TWT9751WK)						0,5

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



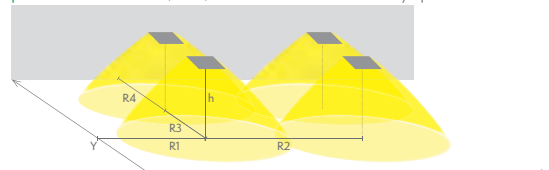
R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT9751WK, TWT9771W

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	12	3,5	8	3,5
4	4,8	3,5	9	3,5
6	2	3,5	10	3,5

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838.
0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT9751WK, TWT9771W

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	12	4	7	7	4
4	4,8	4	8	8	4
6	2	4	8	8	4



SELF-CONTAINED LUMINAIRES WITH SUPER CAPACITOR

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9792WA	220-240 V, 50/60 Hz AC	3 VA	60	1 h Escap + Aalto	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y9792WA	(individually packed incl. TWS9792WA)						0,9

SELF-CONTAINED EMERGENCY LIGHTS WITH SUPER CAPACITOR AND SELF-TESTING

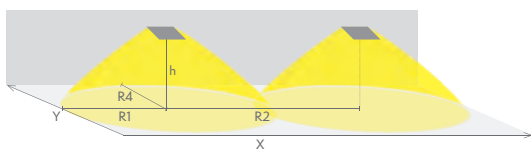


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWS9792WM	220-240 V, 50/60 Hz AC	3 VA	60	1 h Escap + M	-25...+35°C	3 x 2,5 mm ² -o-	0,8
Y9792WM	(individually packed incl. TWS9792WM)						0,9

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



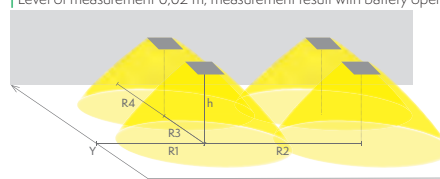
R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWS9792WM/A

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	3,4	1,8	5,5	1,8
3	2,5	1,8	5,5	1,8
4	1,5	1,5	5,5	1,5

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWS9792WM/A

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	3,4	2,5	6,5	6,5	2,5
3	2,5	2,7	6,5	6,5	2,7
4	1,5	3	7	7	3

⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 P20 = Protection rating
 RAL = Colour of the body
 3000K = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 °C = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND WIRELESS CENTRAL MONITORING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9752WA	220-240 V, 50/60 Hz AC	3 VA	155	1 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -o- ⊕	
Y9752WA	(individually packed incl. TWT9752WA)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND WIRELESS CENTRAL MONITORING

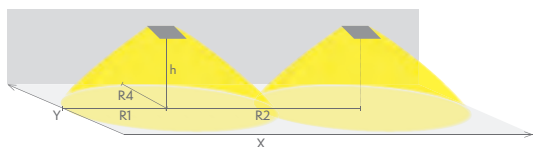


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9753WA	220-240 V, 50/60 Hz AC	6 VA	155	3 h battery + Aalto	0... +35°C	3 x 2,5 mm ² -o- ⊕	
Y9753WA	(individually packed incl. TWT9753WA)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



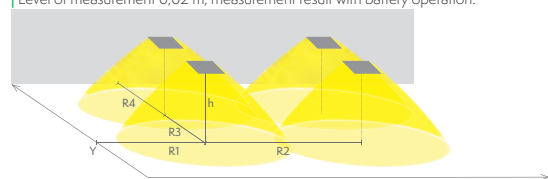
R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R4 distance from wall (Y axis)

TWT9752WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	12	3,5	8	3,5
4	4,8	3,5	9	3,5
6	2	3,5	10	3,5

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838,
 0,5 m edge district is considered in the table.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)
 R3 installation distance between lights (Y axis)
 R4 distance from wall (Y axis)

TWT9753WA

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	12	4	7	7	4
4	4,8	4	8	8	4
6	2	4	8	8	4



SELF-CONTAINED LUMINAIRES WITH BATTERY

SELF-CONTAINED EMERGENCY LIGHTS WITH 1 H BATTERY AND SELF-TESTING



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9752WM	220-240 V, 50/60 Hz AC	3 VA	155	1 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y9752WM	(individually packed incl. TWT9752WM)						

SELF-CONTAINED EMERGENCY LIGHTS WITH 3 H BATTERY AND SELF-TESTING

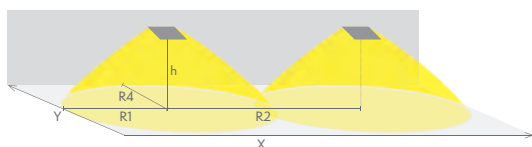


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9753WM	220-240 V, 50/60 Hz AC	6 VA	155	3 h battery + M	0... +35°C	2/3 x 2,5 mm ² -O-	1,5
Y9753WM	(individually packed incl. TWT9753WM)						

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
Level of measurement 0,02 m, measurement result with battery operation.



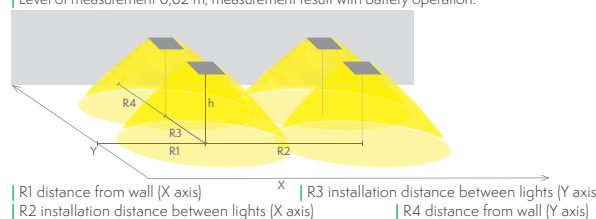
R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R4 distance from wall (Y axis)

TWT9752WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R4 (m)
		1 lux	1 lux	1 lux
2,5	12	3,5	8	3,5
4	4,8	3,5	9	3,5
6	2	3,5	10	3,5

Emergency lighting for open areas (ceiling mounting)

Table of 0,5 lux for open areas according to the norm EN 1838, 0,5 m edge district is considered in the table.
Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
R2 installation distance between lights (X axis)
R3 installation distance between lights (Y axis)
R4 distance from wall (Y axis)

TWT9753WM

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)	R3 (m)	R4 (m)
		0,5 lux	0,5 lux	0,5 lux	0,5 lux
2,5	12	4	7	7	4
4	4,8	4	8	8	4
6	2	4	8	8	4

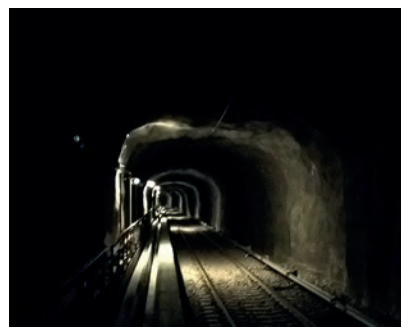
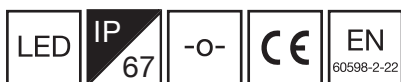


CASE Vitlycke museum, Tanumshede, Sweden

Vitlycke museum is located in the middle of the UNESCO world heritage site in Tanumshede, Västärvet area. Vitlycke Museum presents a wide range of famous bronze age Tanumin rock paintings, as well aspects of the early ancestors' life. Teknoware Sweden delivered ESCAP self-contained luminaires (ESC 90, p. 66) to Vitlycke Museum.

ROBUST 95

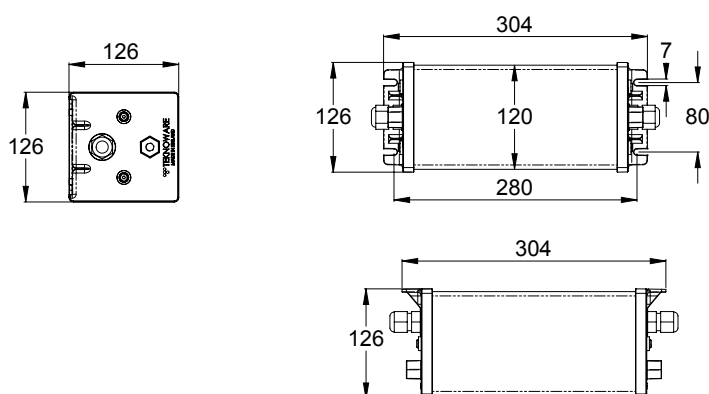
IP67 LED EMERGENCY LIGHT FOR SURFACE MOUNTING TO THE WALL



Robust 95 is a LED emergency light for surface mounting to the wall. It has an especially robust design and a metal body.

With their high IP class and a very rugged construction, the luminaires are suitable for demanding environments, such as damp locations, industry and tunnels.

DIMENSIONS



⊕ = Protection class of luminaire is 1
 ⊞ = Protection class of luminaire is 2
 ⊛ = Protection class of luminaire is 3
 ⊞ = Luminaire is suitable for through-wiring
 IP20 = Protection rating
 RAL = Colour of the body
 30 m = Viewing distance
 LED = LED as a light source
 Aalto = Aalto Control compatible (incl. Lumi Test)
 M = Self-contained luminaire with Lumi test self-testing
 Escap = Self-contained luminaire with 1 h super capacitor backup
 C = Compatible with Tapsa Control Central Battery Unit and Local Controller
 850 = compliant with the 850 glow wire test
 IC = Compatible with Intelligent Controller
 CBS = Centrally supplied

CENTRALLY SUPPLIED LUMINAIRES

230V CENTRALLY SUPPLIED EMERGENCY LIGHTS

Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9551W	220-240 V AC/DC	11,5 VA / 6,9 W	160	CBS	-30... +50°C	3 x 2,5 mm ² -0- ⊕	1,3

ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS

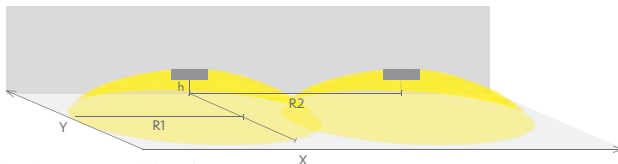


Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT9551WK	220-240 V AC/DC	10 VA / 5,5 W	160	CBS + C	-30... +50°C	3 x 2,5 mm ² -0- ⊕	1,3

LIGHT DISTRIBUTION TABLES

Emergency lighting for escape routes (ceiling mounting)

Table of 1 lux for escape routes in the middle line according to the norm EN 1838.
 Level of measurement 0,02 m, measurement result with battery operation.



R1 distance from wall (X axis)
 R2 installation distance between lights (X axis)

TWT9551W

Mounting height (m)	Below the light (lux)	R1 (m)	R2 (m)
		1 lux	1 lux
0,625	100	3,5	8

ROBUST 86

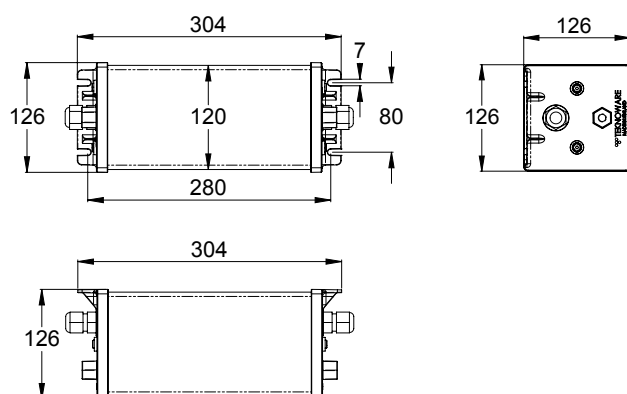
IP67 LED EMERGENCY LIGHT FOR SURFACE MOUNTING TO THE CEILING



Robust 86 is a LED emergency light for surface mounting to the ceiling. It has an especially robust design and a metal body.

With their high IP class and a very rugged construction, the luminaires are suitable for demanding environments, such as damp locations, industry and tunnels.

DIMENSIONS



= Protection class of luminaire is 1 = Protection rating **Aalto** = Aalto Control compatible (incl. Lumi Test) = compliant with the 850 glow wire test
 = Protection class of luminaire is 2 = Colour of the body **M** = Self-contained luminaire with Lumi test self-testing **IC** = Compatible with Intelligent Controller
 = Protection class of luminaire is 3 = Viewing distance **Escap** = Self-contained luminaire with 1 h super capacitor backup **CBS** = Centrally supplied
 = Luminaire is suitable for through-wiring = LED as a light source **C** = Compatible with Tapsa Control Central Battery Unit and Local Controller

CENTRALLY SUPPLIED LUMINAIRES

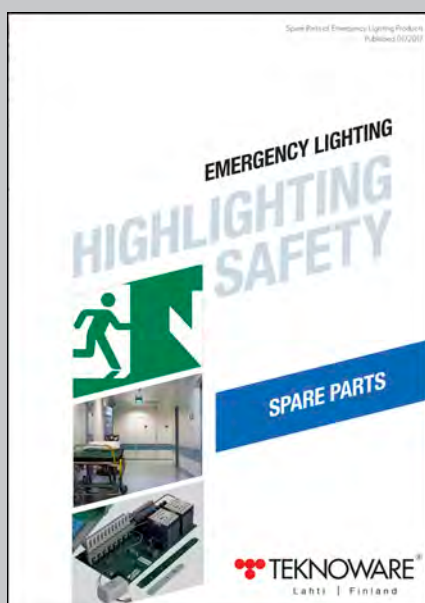
ADDRESSABLE 230 V CENTRALLY SUPPLIED EMERGENCY LIGHTS



Product code	Nominal supply voltage	Max input power	Luminous flux (lm)	Operation mode	Temperature range	Electrical installation	Weight (kg)
TWT8651WK	220-240 V AC/DC	40 VA / 18 W	900	CBS + C + IC	-30... +50°C	3 x 2,5 mm ² -0-	1,3

CONTENT

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Spare parts can be found in a separate spare parts catalogue on our web pages.

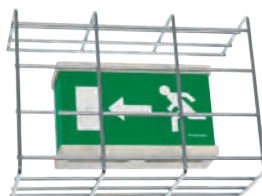
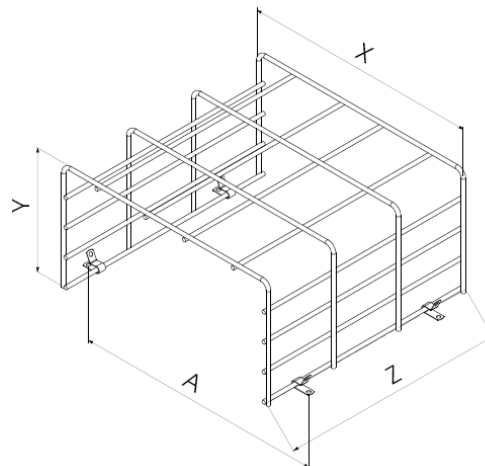
After Sales is responsible for technical support, maintenance support and spare parts sales, please contact aftersales@teknoware.com



SHOCK PROTECTING COVERS

Shock protection cover is used among other things in sports halls and gymnasiums, to protect the luminaire from potential impact shocks.

Product code	For light	Dimensions (mm)			
		X	Y	Z	A
TW77508B	TW416xx, TWT17xx, TWS17xx, TWT82x, TWT90xx	220	120	305	240
TW77507B	TWT60xx, TW850xx, TW844xx, TWT80xx	320	165	305	340
TW77510B	TW802xx, TWT62xx, TWT29xx, TWS29xx, TWS62xx, TWT81xx	420	165	505	440



PICTOGRAM STICKER FIXING GUIDELINES

Separate pictogram stickers can be attached to the luminaire's cover as follows:

1. Wipe the surface of the luminaire's cover, for example with a sponge or with a spray bottle, spraying the water detergent solution. The ratio of the detergent solution is the same as when washing dishes. The water detergent solution facilitates the positioning of the sticker in place.
2. Firstly align the top edges of the pictogram sticker with the top edges of the luminaire's cover..
3. Attach the sticker in place and carefully trim, if necessary, the excess off around the edges with e.g. a general purpose knife.



FREQUENTLY ASKED QUESTIONS

WHAT DO THE FOLLOWING SYMBOLS AND ABBREVIATIONS MEAN IN TEKNOWARE PRODUCT CATALOGUE?

	=Protection rating		= Certain parts and components of the self-contained luminaires shall be compliant with the glow wire test (at 850 °C) as stated in standard EN 60598-2-22
	=The light is suitable for through-wiring		=The product meets the photometric requirements of the European standard EN 1838.
	=The product conforms with the essential requirements of the applicable EC directives.		=Central Battery System includes all the basic functions required by the EN50171 standard.
	=LED as a light source		=Verified photometric data on the luminaire is available according to standard EN 60598-2-22
	=Viewing distance		=Colour of the luminaire's body (RAL 9006 =grey)
			=Colour of the luminaire's body (RAL 9003 = white)

CBS = Centrally supplied

C = Compatible with Tapsa Control Central Battery Systems

IC= Compatible with Intelligent Controller

Escap = Self-contained luminaire with 1 h super capacitor backup

Aalto = Aalto Control compatible (incl. Lumi Test)

M = Self-contained luminaire with Lumi Test self-testing

IP-classification



Degree of protection against solid foreign objects (1st number)	Protection against
0	Non-protected
1	big pieces ($\phi \geq 50$ mm), e.g. wrist
2	medium-size pieces ($\phi \geq 12,5$ mm), e.g. finger
3	small pieces ($\phi \geq 2,5$ mm), e.g. tool
4	very small pieces ($\phi \geq 1$ mm), e.g. wire
5	Dust-protected
6	Dust-tight
Degree of protection against water (2nd number)	Protection against
0	Non-protected
1	Water drop protected
2	Water drop protected inclination max 15°
3	Spraying water protected (limited to vertical $\pm 60^\circ$)
4	Splashing water protected
5	Water jets protected
6	Powerful water jets protected
7	Water immersion protected
8	Continuous water immersion protected

Protection classes

Class I		The protection is provided by a combination of basic insulation and the use of electrical earth.
Class II		Double-insulated electrical products which comprise both basic insulation and supplementary insulation
Class III		Luminaires are designed to be supplied from a special safety isolating transformer whose output is known as Safety Extra-Low Voltage or SELV

FREQUENTLY ASKED QUESTIONS

Why emergency lightings needed?

Emergency lighting is mandatory in workplaces and public buildings. Emergency lighting enables the safe ending of working and evacuation of the building in CASE of an emergency.

Is there a minimum order quantity?

No, you can order just one luminaire, but there is a fee for small delivery. Extra handling fee is 100€ for a shipment of an order under 250€.

How fast can I get products?

Typical delivery time for the products in the catalogue is two to three (2-3) weeks (Ex-works) from the written order, but faster delivery is also often possible depending on the product, capacity of our production, and the amount of the products you want to order. Delivery date will be confirmed with the order confirmation

Can I have luminaires in other colours than in white or grey (which are basic colours for Teknoware luminaires)?

Yes, almost all the luminaires can be painted in RAL colours (there will be extra charge of painting).

Do I need to buy a pictogram separately for Exit Lights

The pictogram always needs to be bought separately for Exit Lights, unless the product code starts with letter Y (the luminaire is individually packed, and includes a pictogram, or a set of pictograms).

The product codes starting with TW do not include pictograms, they need to be ordered separately. It is also vital to inform the direction of the arrow, of each pictogram, in the order. The pictogram can be a sticker, or a set of stickers, or a 1- or 2-sided light plate, depending of the luminaire. Especially when ordering light plate pictograms, you need to decide the direction of the arrow beforehand. Please notice, that for the pictograms according to the new, international ISO 7010 standard, the so called multifunction pictograms are not available any longer.

Is the pictogram fixed into the exit light?

Pictogram will be fixed into the exit light in our production, unless the customer asks the pictogram to be packed separately. Separately packed pictograms are to be fixed by the customer. With some exit lights, the pictogram needs to be cut for the shape. Taping labels into the luminaire cover is included in the price of the luminaire, when pictogram is bought together with the exit light.

Which is the life time of LED luminaires?

Life time of LED luminaires is normally 8-10 years, in normal room temperature.

What kind of Central Battery System do I need?

It depends of the size of the system, whether you need an addressable or a non-addressable system, how many lighting circuits there should be, how many and what kind of emergency and exit lights will be used in the system, and if it should it work in 24 V or 230 V system.

How do I calculate, what kind of batteries I need for the Central Battery System?

You have to calculate the total maximum input power of all the (exit and emergency) lights is the system (total load / Central Battery System).

Do I need a battery cabinet or battery cables?

It depends of the Central Battery System and of the size of the batteries. If you need a separate battery cabinet, you will also need a battery cable. Some Central Battery Systems have space for batteries inside the cabinet, and there is no need for a separate battery cabinet. For example, there is space for max 18 x 65 Ah batteries in the TKT68 Central Battery Systems, bigger batteries require a separate battery cabinet.

What kind of a battery cabinet do I need?

It depends of the batteries. You will find the

tables of battery cabinets on the page of each Central Battery System, at the beginning of this product catalogue.

Which one of the battery cables is correct for my system?

The battery cable will be determined based on the batteries. You will find the tables of battery cables on the page of each Central Battery System, at the beginning of this product catalogue.

Where can I find Eulumdat light distribution files for Emergency lights?

Eulumdat light distribution files, for Emergency lights, for e.g. DIALux software, can be found on Teknoware web pages.

TERMS & CONDITIONS

If not otherwise agreed, we quote the following terms and conditions.

Terms of delivery	EXW, Lahti, Finland, Incoterms 2010
Terms of payment	According to the agreement
Delivery time	The delivery time is confirmed for each order with the order confirmation. Typically the delivery time is two to three weeks (EX Works) from the date of the written order.
Exit lights	A pictogram needs to be defined, and ordered separately, unless an individually packed luminaire is ordered. A pictogram will be fixed on the exit light, at the factory, without extra fee. If the pictogram(s) is/are to be packed separately, it needs to be clearly informed in the order.
Delay interest	8 %. Interest of delayed payments will be determined according to Directive 2000/35/EC of the European Parliament and of the Council of 29 June 2000. Teknoware Oy retains full ownership of the goods until the invoices have totally been paid. Prior hereto, buyers cannot transfer ownership to anyone. mukaan
Other terms	Other terms according to ORGALIME S 2012, General Conditions for the Supply of Mechanical, Electrical and Electronic Products; no other compensations can be demanded.
We reserve the rights to make modifications without notice.	

Teknoware team at your service!



CONTACT INFORMATION

Teknoware Oy

✉ P.O. Box 19, FI-15101 Lahti
 🚶 Ilmarisentie 8, FI-15200 Lahti
 Finland

Tel: +358 (0)3 883 020
 emexit@teknoware.com
 www.teknoware.com



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Teknoware completed a factory expansion in 2016

Emergency lighting unit	Telephone	Email emexit@teknoware.com
Business Director Mr Jari Tabell	+358 (0)3 883 0264	jari.tabell@teknoware.com
Export Manager Mr Simo Kurki	+358 (0)3 883 0178	simo.kurki@teknoware.com
Area Manager Mr Pasi Hongisto	+358 (0)3 883 0233	pasi.hongisto@teknoware.com
Export Assistant Ms Tatiana Kislova	+358 (0)3 883 0292	tatiana.kislova@teknoware.com

After Sales (after sales service, technical assistance)	Telephone	Email
After Sales Manager Mr Markus Laurell	+358 (0)3 883 0186	aftersales@teknoware.com

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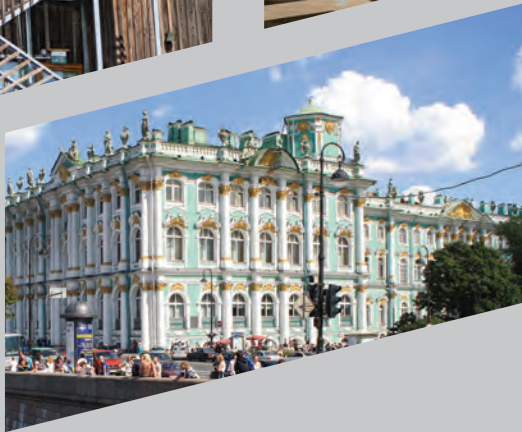
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Teknoware Oy
✉ P.O. Box 19, 15101 LAHTI, FINLAND
🚶 Ilmarisentie 8, 15200 LAHTI, FINLAND
Tel. +358 3 883 020

www.teknoware.com
emexit@teknoware.com

