PERCo®

TURNSTILES & GATES
ACCESS CONTROL SYSTEMS

2015

TABLE OF CONTENTS

WIEGAND INTERFACE READERS AND CARD CAPTURE READERS

GENERAL INFORMATION ON PERCo-Web SYSTEM

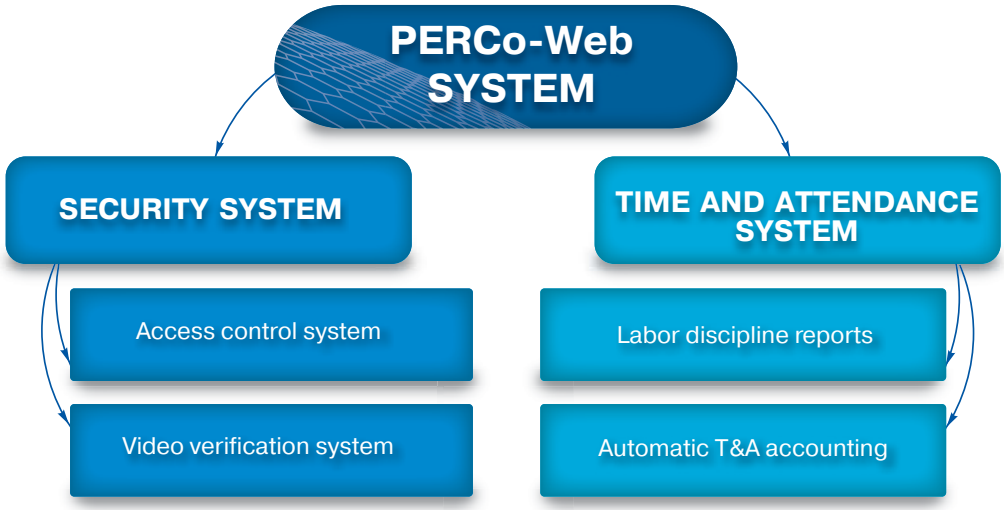
PERCo-Web is a multifunctional access control system with Web interface. PERCo-Web system provides a solution for security and efficiency improvement of an enterprise. Efficiency improvement includes reduction of labor discipline violations, automatic Time & Attendance and payroll accounting, automatic issuing of permanent and temporal access authorization cards and other processes.

Security control is performed by united access control, video surveillance and fire alarm systems. The advantage of PERCo-Web system is provided by the fact that the same equipment is used for security reasons and for efficiency improvement reasons. This process provides no impediments to security reasons, that's why it does not influence processing speed and reliability of the system.

Web-interface allows to organize remote access to the program from a workplace of an employee. System software and database are installed on one computer (server), all users work in the system via Web-browser. In such case there is no need to install software at workplaces of users.

PERCo-Web system is designed for enterprises, facilities, offices, business-centers that require optimal complex of access control and Time & Attendance management functions.

Functionality of the system



PERCo-Web provides access control and efficiency improvement solutions.

Security:

- access deny for unauthorized persons
- assignment of employees access rights according to time, room and status
- verification – access is denied to a person who uses someone else's card
- issuing of access authorization cards in the form of badges with photo, name, etc. of the person
- access of visitors with the use of temporal access authorization cards along with automatic return of cards at the exit
- arming of rooms in terms of internal system security
- fire alarm system
- vehicle entry

Efficiency improvement:

- registration of start/end of business day on IP-Stiles and special T&A terminals
- control of labor discipline violation (reports on employees if they are late, absent or have left before the end of business day)
- automatic T&A accounting
- support of week, shift or flextime schedules; operative calculation of working time balance
- automatic input of personal data of employees and visitors with the use of document recognition software
- Functionality of PERCo-Web system can be increased with the use of specially developed

SDK (Software Development Kit). SDK allows integrating of the system equipment with special systems (paid access systems, ticketing systems, ERP-systems, systems for medical facilities, etc.)

Advantages of Ethernet technology

Construction of PERCo-Web system complies with modern level of security systems development. The system is based on the network of controllers and computers, connected via Ethernet interface.

- high reliability of security systems thanks to standard IT-solutions and operation of system in the interconnect address space
- controllers equipped with Ethernet interface can be connected directly to local network without any additional equipment
- high data transmission rate and parallel operation of all controllers allow constructing security system without any limitations to the number of controllers, including those located in different buildings, districts and cities
- simultaneous processing of various events provides consistent operation of system in the moments of simultaneous activation of several devices
- extension of system does not require existing devices to be replaced – new devices can be just connected to Ethernet network
- system can be constructed with various ways of access: copper conductor, fiber-optic cable, wireless technology (Wi-Fi, wireless modems)
- Ethernet also makes it possible to use PoE (Power over Ethernet) technology – alternative way of power supply for network devices, that can make installation of ACS more convenient.

Operating principles of the system

All main «smart» elements of the system – access controllers, registration controllers, control units and also video cameras – are connected directly to Ethernet network, while other equipment – turnstiles, locks, readers, fire alarm indicators – is connected to control elements. It provides high reliability of the system, absence of hardware conflicts and also reasonable costs for equipment installation.

EMM/HID and MIFARE proximity cards and badges are used as identifiers in the system.

When a card is presented, controllers either grant or deny access through operating devices (turnstiles, locks). Events are recorded in non-volatile memory of controllers and then used for labor discipline and T&A control.

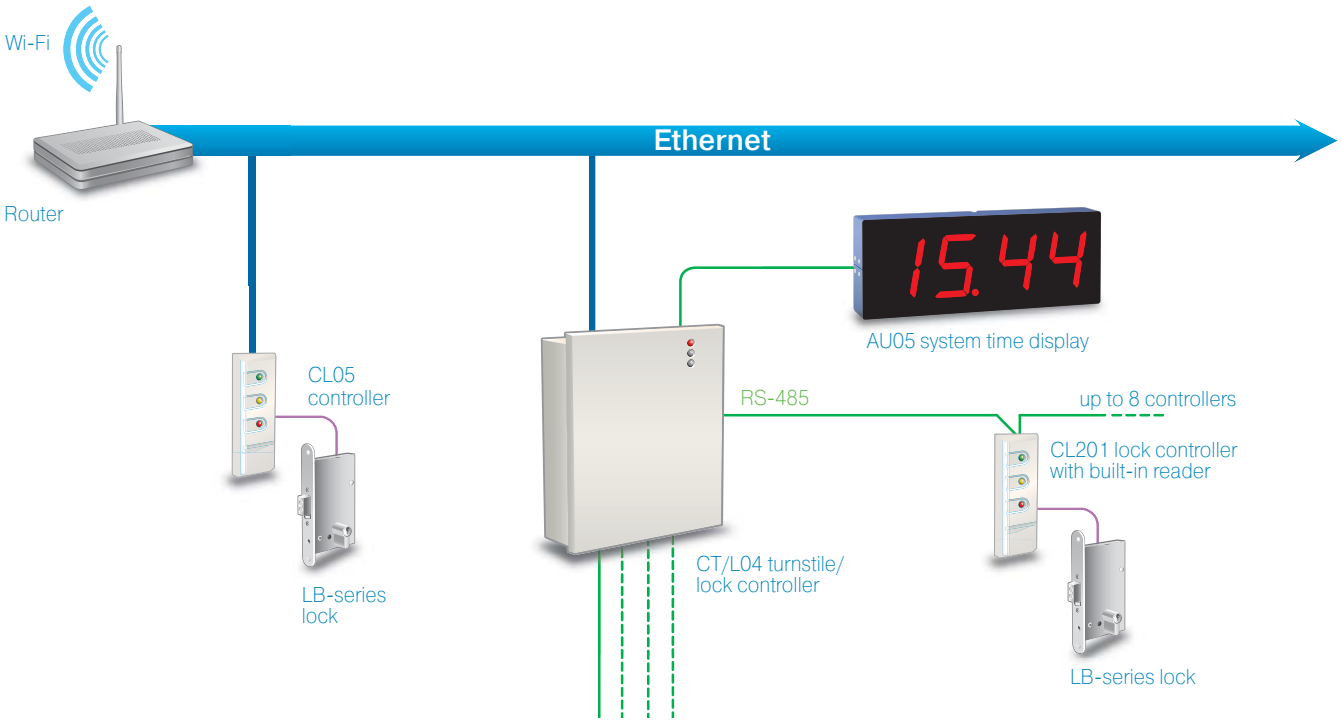
Access controllers are equipped with integrated support of alarm lines that allows not only controlling the whole office, but also arming/disarming with the use of access card. The system does not require permanent connection of controllers to a computer with ACS server. Each controller is equipped with non-volatile memory containing system settings, access rights and event log.

Main technical specifications of the system

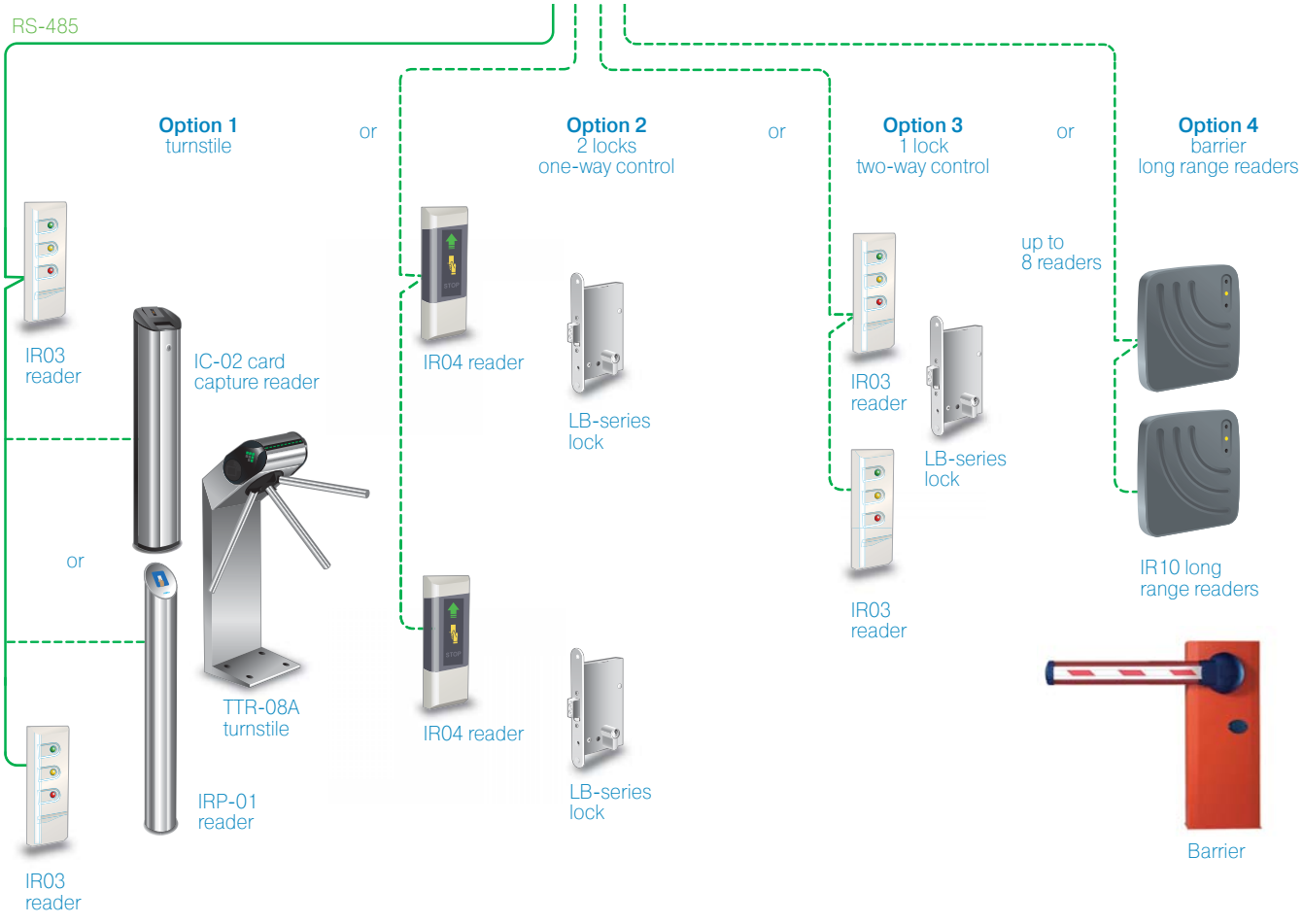
Connection interface	Ethernet
Number of controllers in the system	up to 1000
Total number of identifiers in the system	up to 50 000
Type of identifiers	EMM/HID Proximity cards and tags, MIFARE smart-cards
Number of control space zones	up to 1024
Number of control time zones	up to 256
Number of time intervals for each time zone	4
Number of week schedules	up to 256
Number of flextime day schedules	up to 256
Number of flextime week schedules	up to 256
Programming extent of flextime day schedules	up to 30 days
Programming extent of flextime week schedules	up to 52 weeks
Number of days that can be programmed as days of various types	366

All main elements of PERCo-Web system (controllers and cameras) are connected directly to local Ethernet network, other devices (readers, turnstiles, locks) are connected to controllers.

PERCo-Web access control and T&A system scheme



OPTIONS FOR CONNECTING TURNSTILES, GATES, LOCKS AND BARRIERS TO CT/L04 CONTROLLER



PERCo-Web SOFTWARE

PERCo-Web provides a possibility to construct an access control system that fits all requirements of an office, a company or a business-centre.

Insert IP-address into the address bar to get access to the PERCo Web-interface.

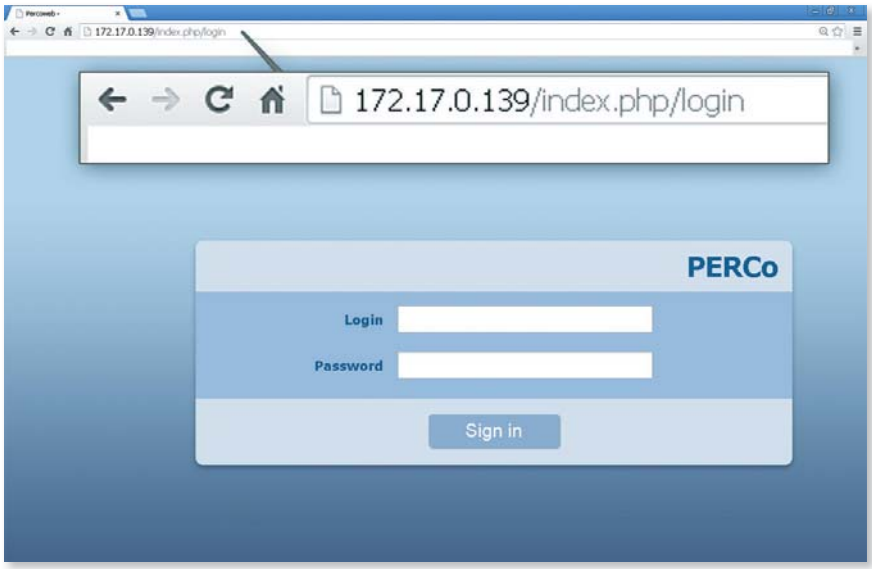


Fig. IP-address

PERCo-Web software allows users to operate remotely in the following sections:

- Staff
- Access control office
- Time & Attendance
- Access control
- Verification
- Cards ordering
- Administration

Section: Staff

«Staff» module allows to maintain data of employees and departments, create and edit work schedules, assign access rights to employees.

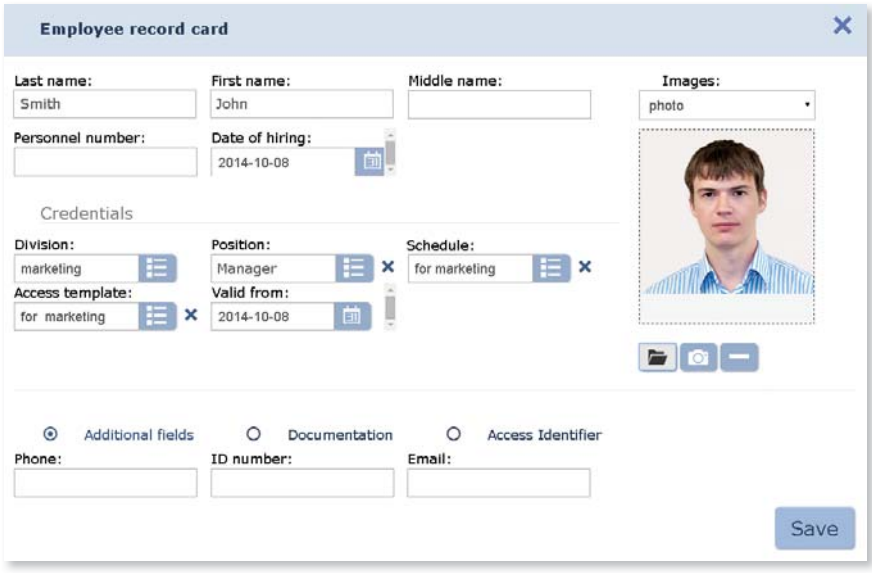


Fig. Employee record card

The PERCo-Web can store various text and image information of employees. Images can be downloaded both from IP-camera and from a file.

Each employee is assigned with access schedule for the secured area and work schedule for labor discipline and T&A control.

Work schedules are also set in this section. The system supports setting of week and shift work schedules.

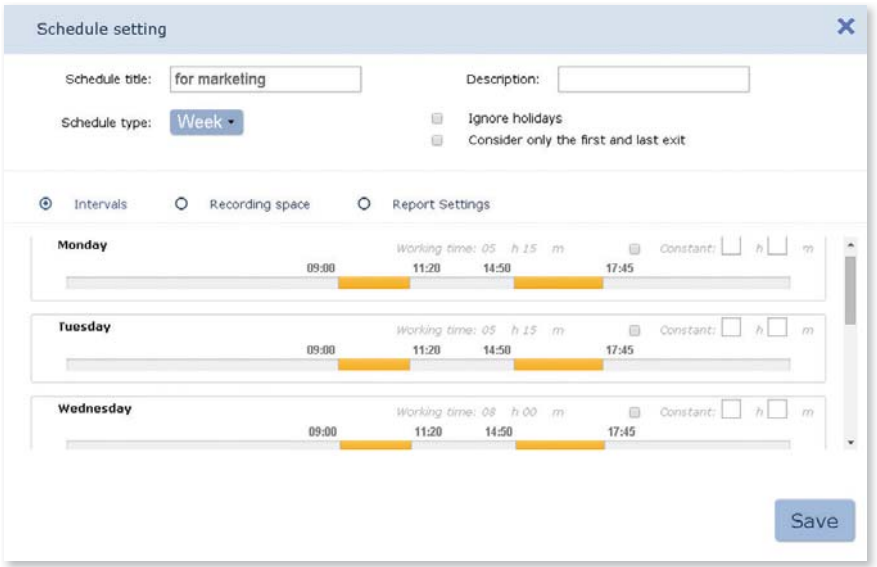


Fig. Setting of work schedules

When organizing work schedules the system takes into account such features as: transition of schedule through 0-00, additional breaks and lunch breaks, support of flextime schedules, etc.

Section: Access control office

The main goal of this section is to organize access to the facility for employees and visitors. The system can create access algorithms of different complexity, depending on requirements of users.

An employee or a visitor receives an access card with assigned access rights to gain access to the secured area. According to security requirements of the facility the system can set various access algorithms:

- Access limitation according to time and areas
- Verified access – access is granted by a security guard upon identification of employee. The employee is identified by the security guard who checks his photo on the display
- Double-check access – access is granted on «two persons» principle. The access for the card that is set to be «subject to double-check» is granted only when the second (double-check) card is presented.
- Access with a right for an employee to arm security of the area
- Control of several passages with one card («Antipassback» function).

Visitors receive single-passage access cards. These cards can be collected at the exit with the use of card capture readers.

This section provides visitor recording. Administration of the enterprise can check necessary information on visitors who visited any department.

Besides that «Access control office» section provides a possibility to create patterns for card issuing in the form of badges with photos, names and other information.

Section: Cards ordering

The module allows managers and other authorities to remotely order access cards for expected visitors in advance.

System user (manager or access control office operator) enters main data of the visitor. Information on ordered access card is automatically shown in «Access control office» section, «Ordered access cards» tab. When the visitor comes to the check-point, the operator just needs to check data and issue a temporary access card.

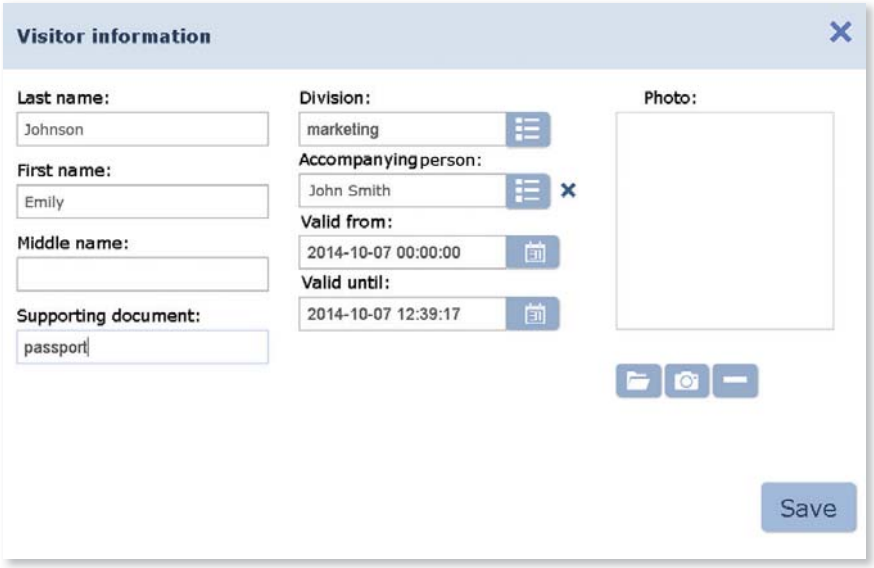


Fig. Visitor Information

Section: Time & Attendance

The section is designed to control labor discipline of employees and register their work hours.

Parameters for registering are set in «Staff» section.

«Time & Attendance» section provides following reports:

Time & Attendance:

- On worked time
- On non-worked time
- On overtime
- On balance (difference between time worked according to schedule and time of employee's presence at work)

Labor discipline:

- On time of presence/absence
- On employees that are present/absent at the moment
- On location of employees

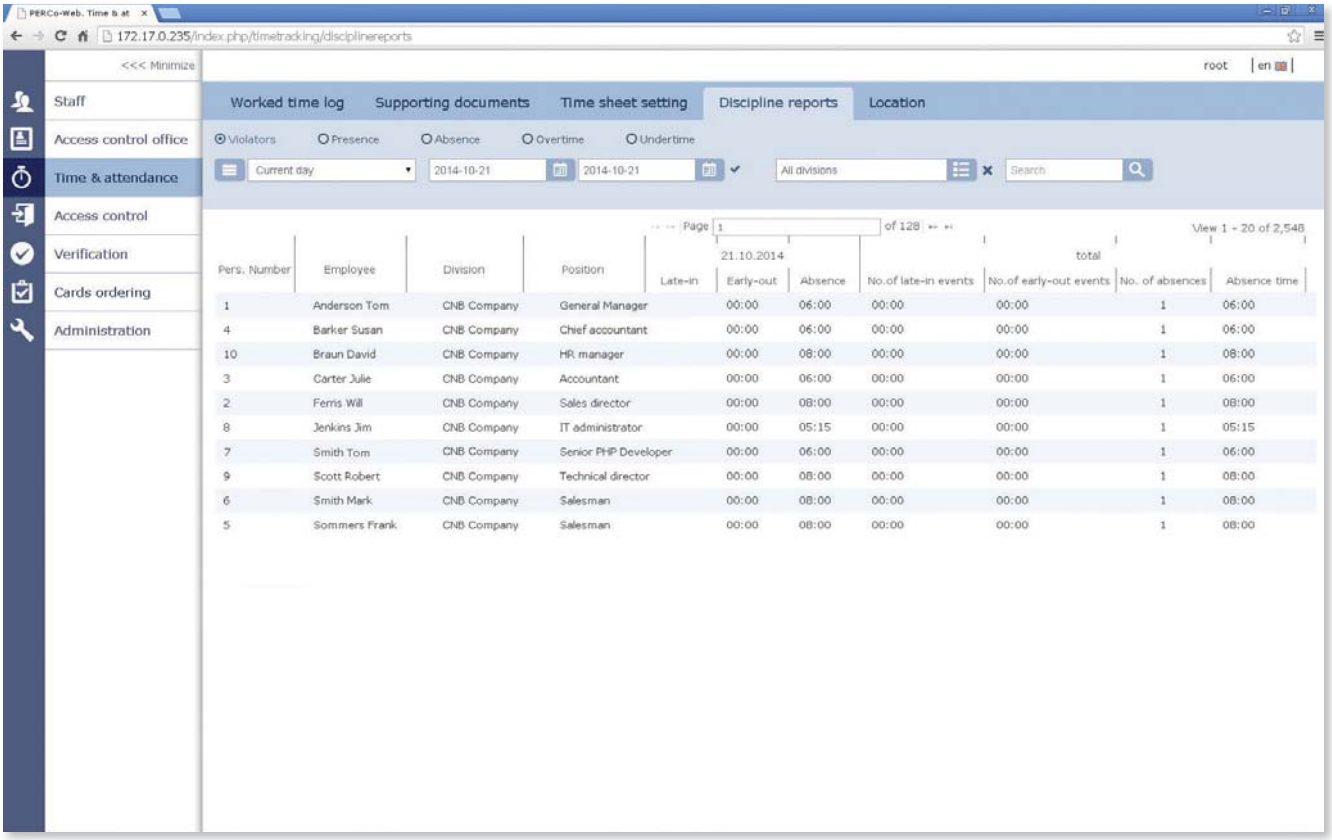


Fig. T&A Reports

Section: Verification

This section is designed for organizing of workplace for security service operator, it provides a possibility to identify the owner of the card by comparing the face of entering employee or his/her image from a video camera installed at the entrance with the photo of the owner from the database. On the basis of this comparison the security service operator decides whether to grant or deny access.

Later the system can provide a report based on verification events.

Section: Access control

This section is designed for creation of reports based on various data for security service and system administrators. The system can create the following reports:

- based on access parameters of employees/visitors to various rooms
- based on passages of employees and visitors
- based on verification events
- based on device events

Also the system allows the user to operate system devices in on-line mode.

Section: Administration

This section is designed for operation of security system administrator.

Main functions of the section:

- Equipment configuration
- Reports on system events
- Design of facility's rooms
- Access of system users

BASIC ACCESS CONTROL SOLUTONS

Time and Attendance control solutions for enterprises

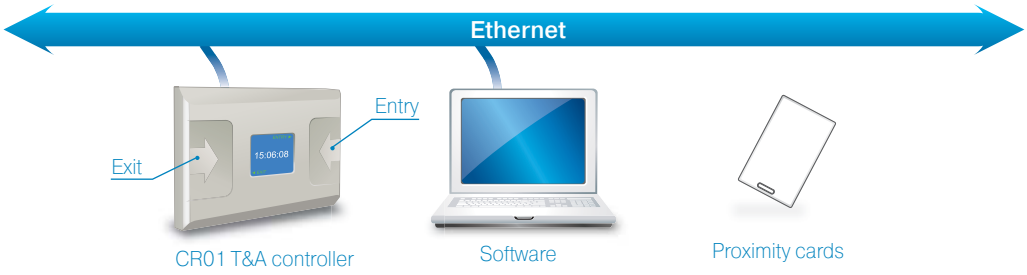
You can manage your Time and Attendance control system using the ACS equipment that is already installed in the facility – for example you can use a turnstile and a lock and 2 card readers (for entry and for exit) – or it can be managed with the specially designed PERCo-CR01 T&A controller.

Below you can find the description of both of these options for organizing the T&A control system at the enterprise.

T&A control system without lock or turnstile in a small enterprise without entrance check-point

The installation of the Ethernet connected PERCo-CR01 controller (LICON) with two built-in card readers and a real time clock provides the simplest solution for the T&A control.

PERCo-CR01 controller (LICON)	1 unit
Proximity card	According to the number of users



Employees have to present their cards to the controller upon arriving to work and leaving from it. When the card is presented to the controller, the system identifies the employee and records the time of his entry/exit. The Software permits to compare the real time when the employee was present in the workplace with his individual work schedule and forms the necessary reports, for example the report on labor disciplinary violations. The intellectual control algorithm sustains the flextime and shift work schedules. If it is necessary a responsible employee can input justificatory documents data into the system.

The LCD screen displays the system time so the employee that presents the card to the controller can see what time of entry/exit will be indicated in the reports.

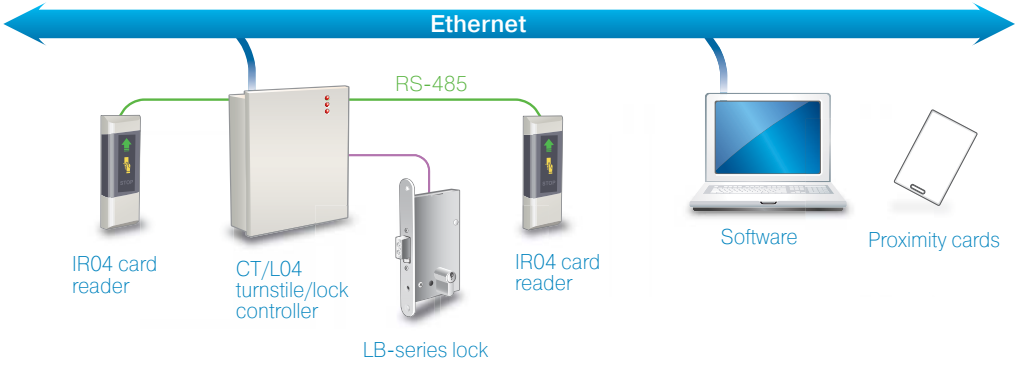
The controller also informs about double or incorrect card presentation.

T&A control system based on turnstile or lock

If the enterprise is already provided with access control system, the equipment that is already installed can be used for T&A management – IP-stiles, turnstiles, locks, controllers and readers. When the system is used at a large enterprise, it might be more efficient to organize T&A system not at the check-point, but at the departments and other rooms, by installing T&A controllers at the entrances.

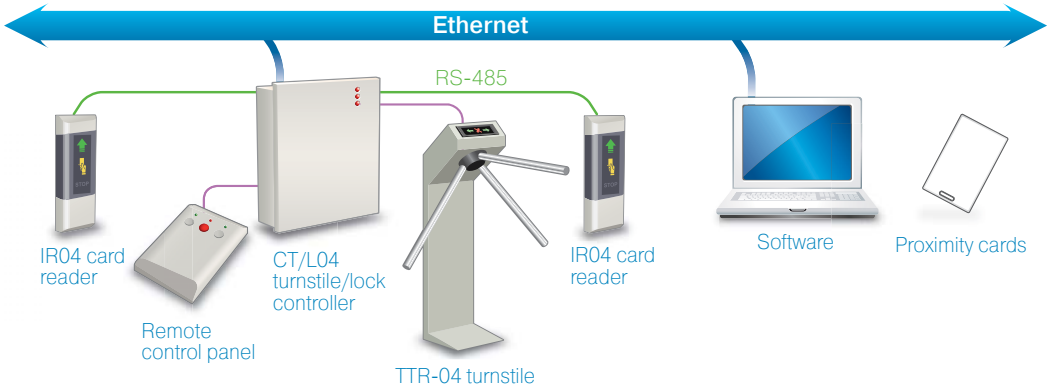
Example 1.

Electromechanical lock	1 unit
CT/L04 turnstile/lock controller	1 unit
IR04 card reader	2 units
Proximity cards	According to the number of users



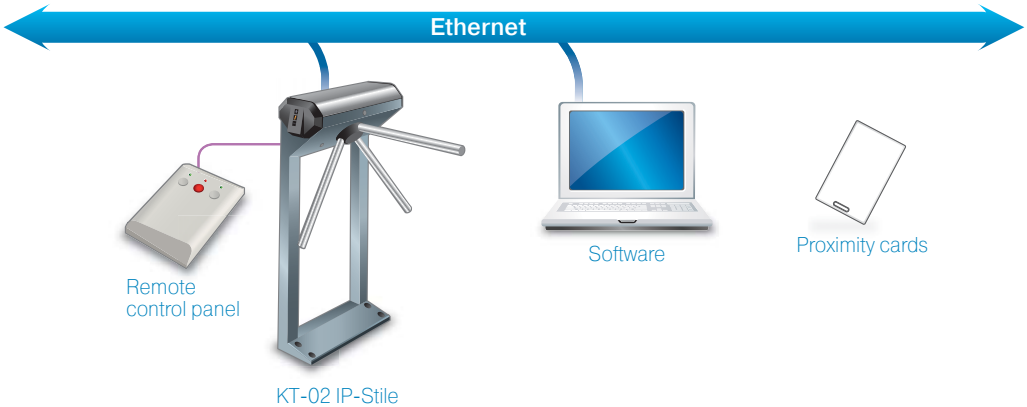
Example 2.

PERCo turnstile	1 unit
CT/L04 turnstile/lock controller	1 unit
IR04 card reader	2 units
Proximity cards	According to the number of users



Example 3.

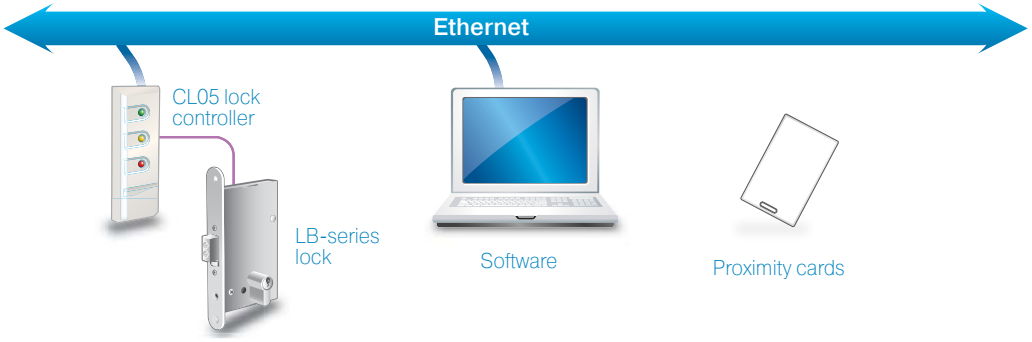
PERCo IP-Stile	1 unit
Proximity cards	According to the number of users



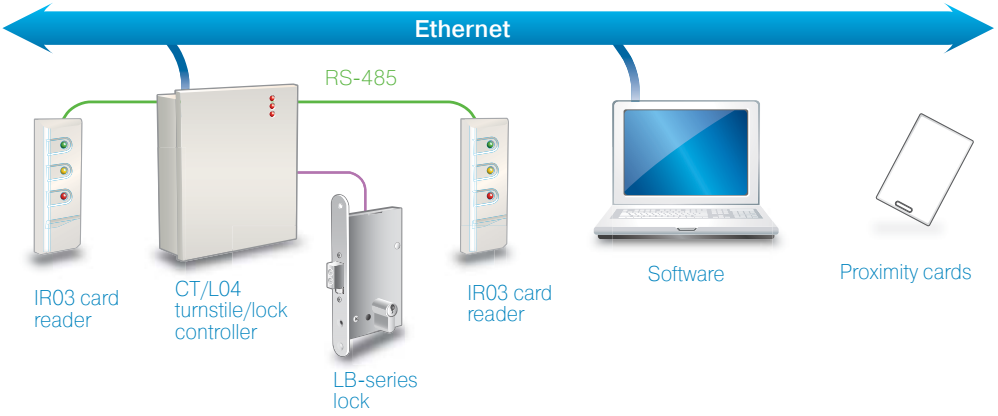
Single door access control system

Single door access control system can be used with entrance doors and emergency exit doors, office and staff room doors. The main objective of the system is to prevent unauthorized access. Depending on the door location you can arrange both one-way and bi-directional control.

ONE-WAY CONTROL	
CL05 lock controller with built-it card reader	1 pcs
LB-series electromechanical door lock	1 pcs
Software	1 pcs
Proximity cards	According to the users number



BI-DIRECTIONAL CONTROL	
CT/L04 turnstile/lock controller	1 pcs
IR03 card reader	2 pcs
LB-series electromechanical door lock	1 pcs
Software	1 pcs
Proximity cards	According to the users number

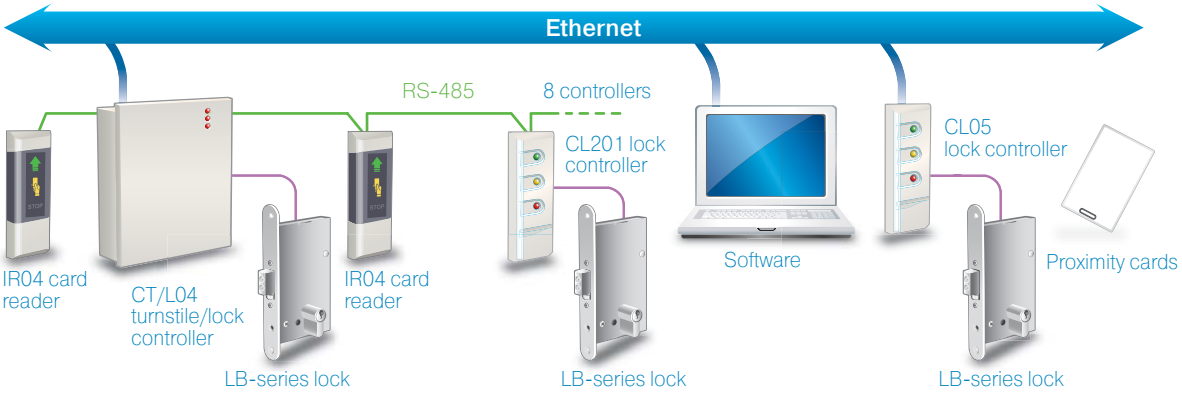


Users card list is stored in controller memory with the software. All events - inputs and outputs - are stored in the controller's memory. To upload a card list of employees or make changes, you can use a controller web-interface with a laptop.

Several doors access control system

Consider the access control system for a company that occupies a floor in the business center, moreover, has one more room on another floor. Access control for 8 rooms, in/out control for floor entrance and separate room access control should be organized here.

CL05 lock controller with built-it card reader	1 pcs
CT/L04 turnstile/lock controller	1 pcs
CL201 lock controller with built-it card reader	8 pcs
IR04 card reader	2 pcs
LB-series electromechanical door lock	10 pcs
Software	1 pcs
Proximity cards	According to the users number



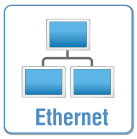
All doors should be equipped with electromechanical locks.

8 room doors are equipped with CL201 controllers with built-in readers. Door that leads to the floor is equipped with two IR04 card readers. Card readers and CL201 lock controllers with integrated readers are connected to CT/L04 universal controller and locks are connected to CT/L04 and CL201 controllers.

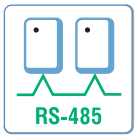
Separate room door is equipped with CL05 controller with built-in reader.

CT/L04 and CL05 controllers connect a software installed on a computer via Ethernet. The software allows you to create employees lists, assign access rights and view the event log.

LIST OF SYMBOLS



Ethernet communication interface



RS-485 communication interface

Number of controlled locks

Number of controlled alarm lines

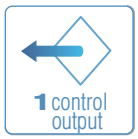
Number of card holders (proximity cards)

Number of events in the event log

Number of readers

Operating voltage

Operating temperature range

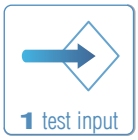


Number of control outputs

USB connection

Number of controlled directions

Number of controlled turnstiles



Number of test inputs

Power consumption

Throughput rate

Motor drive

Key override control

Automatic anti-panic

Mechanical anti-panic

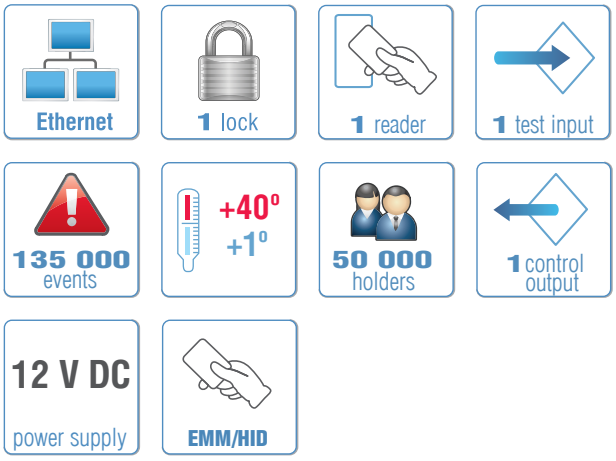
Proximity card types

Wheel-chair access

Card capture reader

CL05 LOCK CONTROLLER WITH BUILT-IN CARD READER

145 x 50 x 20 mm



Application

The CL05 lock controller is designed to control one electromechanical or electromagnetic lock.

The CL05 combines a controller for access control and a proximity card reader.

Features and Benefits

The CL05 provides a cost effective solution for door access control inside office premises.

The operation mode («Open», «Control», «Security», «Closed») is displayed by three LED indicators located near the relief pictograms on the front panel of the controller.

The device setting and control are effected through PERCo-Web web-interface.

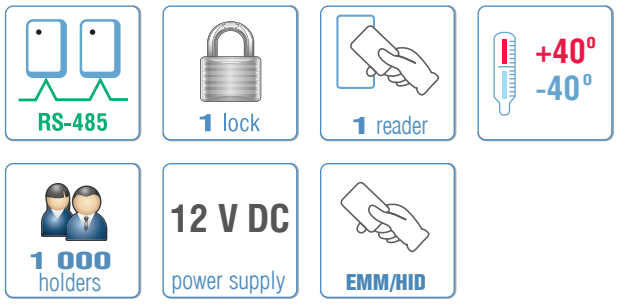
The controller operation modes can be set with the access card or through web-interface.

CL201 LOCK CONTROLLER WITH BUILT-IN CARD READER

145 x 50 x 20 mm

Compatible with

CT/L04 turnstile/lock controller



Application

The CL201 lock controller is designed to control one electromechanical or electromagnetic lock.

Features and Benefits

The CL201 lock controller is provided with built-in card reader for HID and EM-Marin proximity cards, that helps to facilitate the assemblage and maintenance.

The CL201 controller is connected to CT/L04 turnstile/lock controller (it supports connection to up to eight CL201controllers).

In case of a connection loss with a CT/L04 controller the CL201controller keeps in memory the emergency list of 128 cards, but it doesn't keep the events in its own memory.

The controller protection from environmental exposures is ensured by covering its board with compound.

CR01 TIME & ATTENDANCE (T&A) CONTROLLER

140 x 190 x 23 mm

Standby mode

Name of card owner and time of card presentation

Card is presented with time violation

Card is not in the list

Card is presented repeatedly

Card is presented repeatedly

Ethernet | 2 readers | 5 000 holders | +40° +1° | 12 V DC power supply | 105 000 events | EMM/HID

Application

The CR01 (LICON) is a specialized controller designed to create Time and Attendance terminal and to exercise labour discipline control.

Features and Benefits

The LICON represents a perfect solution when it is appropriate to control the entry and exit time of the employees not at the entrances equipped with turnstiles but in other specifically allotted places. It can be for example an office without a turnstile at the entrance or, on the contrary, a big enterprise where the emloyee's working place is distant from the entrance. In such cases the LICON terminals can be installed in workshops or in other rooms where the working places are located. The LICON can operate as a stand-alone system or as a part of PERCo-Web system.

The CR01 controller has two built-in proximity card readers for the entry and exit registration. The places for card presentation are signed with pictograms. On the controller front panel there is an LCD screen. Each employee presents a proximity card at the LICON terminal upon arriving to work and leaving from work.The controller transmits the entry and exit time to the software, that forms the time sheet and other reports on labor disciplinary violations - late-in and early-out entries, unauthorized absence - on the basis of data received.

In the waiting mode the LCD screen displays the current time and indicates positions of the card readers for entry and for exit registration.

When the proximity card is presented by the employee the LCD screen displays the name of card holder, the card number and the time of card presentation. Time violations (for example, late-in and early-out events) are indicated with red color and are accompanied by auditory indication.

IR05 USB PROXIMITY CARD READER

145x45x23 mm

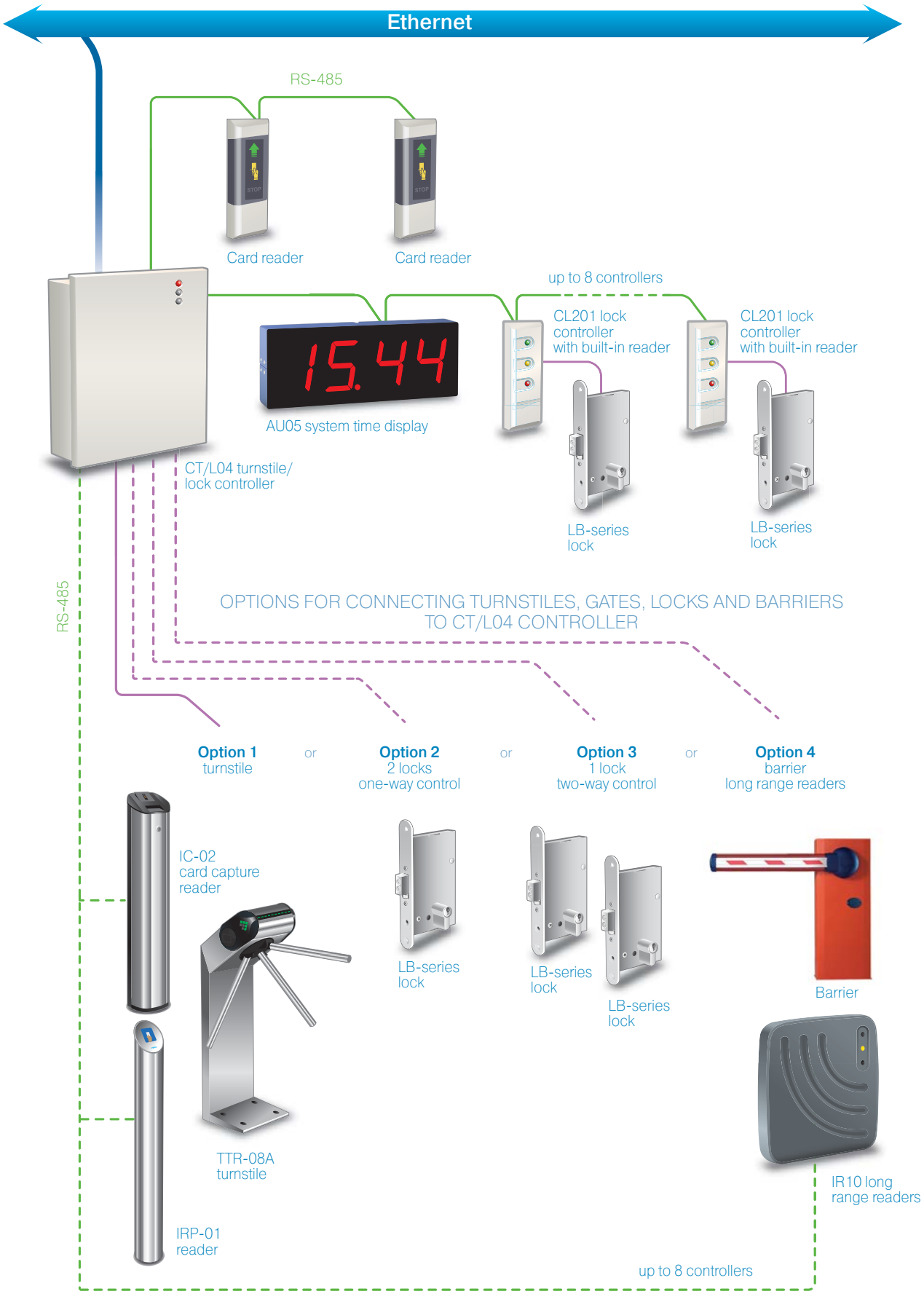
USB | 5 V DC power supply | +40° +1° | EMM/HID

Application

IR05 USB proximity card reader is designed for automatic input of proximity card number into PERCo-Web system software.

The reader is connected to the computer via USB-port and operates with EMM/HID cards.

Controller connection options



CT/L04 TURNSTILE/LOCK CONTROLLER

205 x 235 x 58 mm

Compatible with

CL201 controller

IR03 card reader

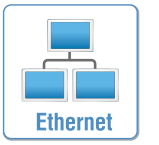
IR04 card reader

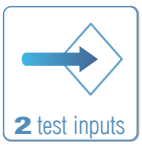
AU05 system time display

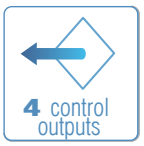
IR10 long range card reader

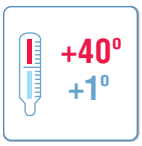
IRP-01 Card capture reader

IC-02 Card capture reader









Application

The CT/L04 controller can control one turnstile/gate or one lock (two–way passage control) or two locks (one way passage control).

Features and Benefits

The CT/L04 universal turnstile/lock controller operates through Ethernet interface, and supports connection through RS-485 interface of the following devices:

- up to two IR03 or IR04 card readers;
- up to eight CL201 lock controllers (each CL201 controller is fitted with a built-in card reader and controls one lock)
- AU05 system time display

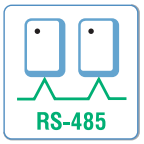
The device setting and control are effected through PERCo-Web web-interface.

IR03/IR07 PROXIMITY CARD READERS

145 x 50 x 20 mm

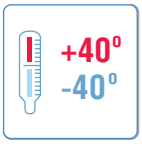
Compatible with

CT/L04 turnstile/lock controller



for IR07

for IR03



Application

The IR03 and IR07 proximity readers are designed for reading and decoding the code logged into the proximity card and for its transfer to the controller of PERCo system operating device.

Features and Benefits

The IR03 and IR07 readers are used for site access control and operate together with the turnstile/lock controller.

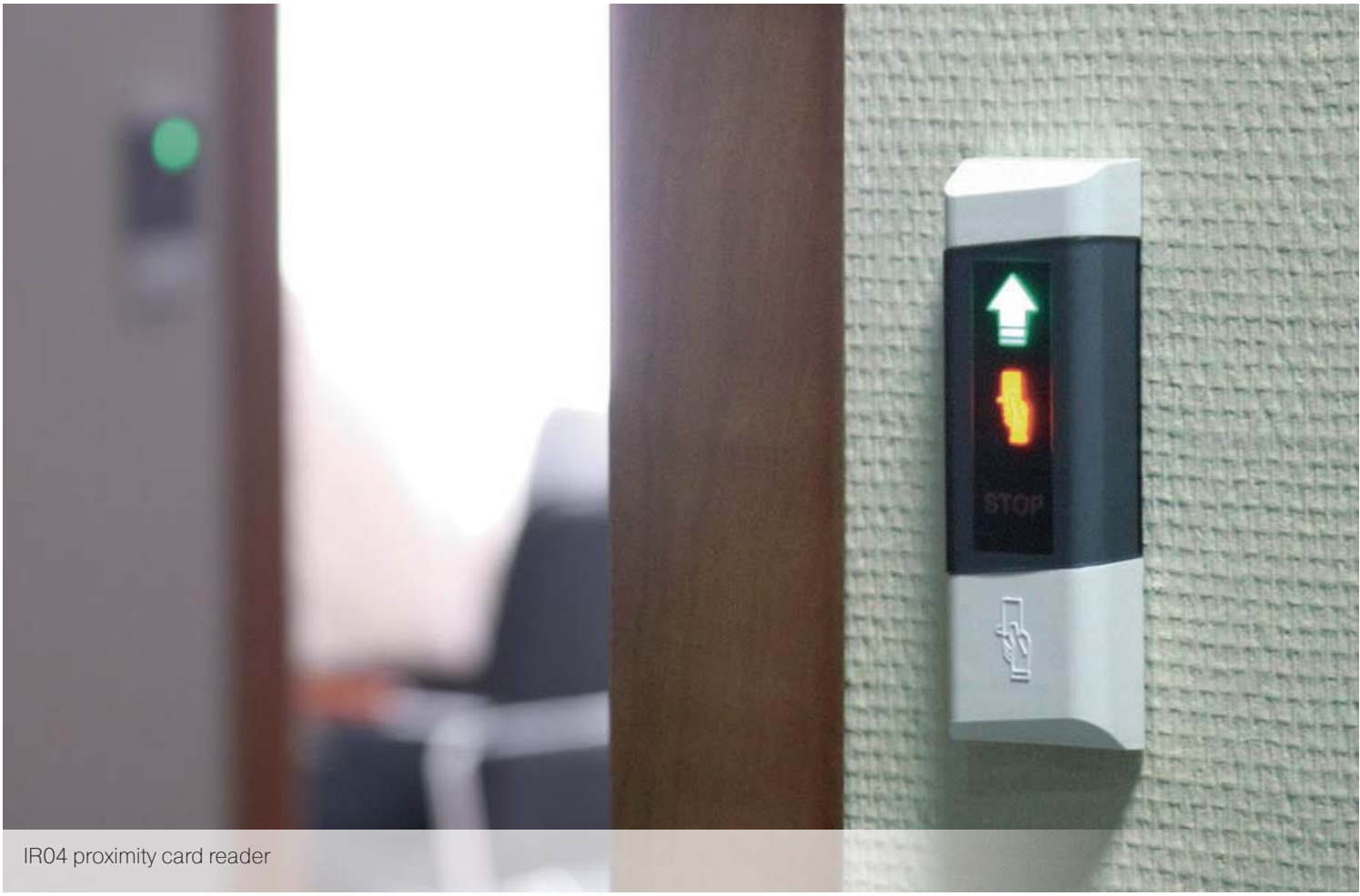
The operating temperature range of the readers allows using them outdoors.

The IR03 proximity reader is designed for operating with EMM/HID proximity cards.

Card reading distance for EM-Marin cards – 10 cm, for HID cards – 7 cm.

The IR07 proximity reader is designed for operating with ISO 14443 Mifare proximity cards.

Card reading distance for Mifare cards – 6 cm.



IR04 proximity card reader

AU05 system time display

IR04 PROXIMITY CARD READER

145 x 50 x 20 mm

Compatible with

CT/L04 turnstile/lock controller

12 V DC power supply

RS-485

+40° +1°

EMM/HID

Application

The IR04 proximity reader is designed for reading and decoding the code logged into the proximity card and its transfer to the controller of PERCo system operating device.

Features and Benefits

The IR04 reader is used for site access control and operates together with the lock controller or turnstile controller.

The elegant design of the IR04 makes it a perfect solution for executives offices, conference rooms.

Card reading distance for EM-Marin cards – 10 cm,
for HID cards – 7 cm.

AU05 SYSTEM TIME DISPLAY

156 x 409 x 65,5 mm

Compatible with

CT/L04 turnstile/lock controller

12 V DC power supply

RS-485

+40° +1°

10 W power consumption

Application

The AU05 system time display is designed to indicate the system time according to which the present system makes the decision if the access is denied or granted and this system time is indicated in all the event lists.

Features and Benefits

The display is used for indication of the system time that forms the basis of employees' working time calculation. At the moment of card presentation at the entrance the employee will be able to see what time will be listed in his time sheet.

Height of numerals – 101,6 mm
Typical brightness for red light – 60-130 mcd
Look angle – not less than 150°

IRP-01 reader post with LCD display

IR10 long range (100cm) card reader for vehicle entry checkpoints

IRP-01 READER POST WITH LCD DISPLAY

1025 x 107 x 107 mm

RS-485 | 12 V DC power supply | +40° +1° | Wiegand | EMM/HID

Application

The IRP-01 reader post is an elegant solution designed to read proximity cards and to display the information if the access is denied or granted.

The IRP-01 can be applied as a part of PERCo-Web system or can be integrated in the systems of other manufacturers. The IRP-01 operates through two types of interfaces – RS-485 or Wiegand, the output format must be selected and set at the time of installation.

Design

The radio-transparent top cover is made of glass. Under the top cover there are a reader control board and an LCD display with animated indication of operational modes.


Control


Open

Closed


Verification process

Card reading distance for EM-Marin cards – not less than 7 cm, for HID cards – not less than 6 cm. The card reading is confirmed by an audible signal.

Materials and Finishes

Card reader post – stainless steel

Top cover – tempered glass

IR10 LONG RANGE (100CM) CARD READER FOR VEHICLE ENTRY CHECKPOINTS

300 x 300 x 30 mm

Compatible with

CT/L04 turnstile/lock controller

RS-485 | 12 V DC power supply | +40° -40° | EMM/HID | Wiegand

Application

The IR10 long range card reader for outdoor use is designed for reading EMM and HID proximity cards and the max. card reading distance is 100 cm.

Materials and Finishes

Reader body - ABS plastic

RTD-03S rotor waist-high turnstiles, IC-02 card capture reader, BH-02 railings and WMD-05S gate, «Leon», Saint Petersburg, Russia

Card capture reader IC-02 as part of access control system at the entrance of «Avantage» business centre, Saint Petersburg, Russia

IC-02 CARD CAPTURE READER

194 x 194 x 1017 mm

RS-485 | 12 V DC power supply | +45° +1° | EMM/HID

Application

The IC-02 card capture reader is designed to capture the guests cards. The IC-02 also supports reading of personnel cards without capturing.

Design

The IC-02 card capture reader is used to capture and store guest cards, when visitors are required to return the card upon leaving the facility, and also can be used as a regular reader for personnel permanent cards.

The card capture reader operates with HID and EM-Marin cards.

One of advantages of the PERCo card capture reader is that the card container with cards can be easily extracted.

The card capture reader can be complete with a turnstile controller and with an operating device – a turnstile or gate.

Capturing guest cards

Reading personnel cards

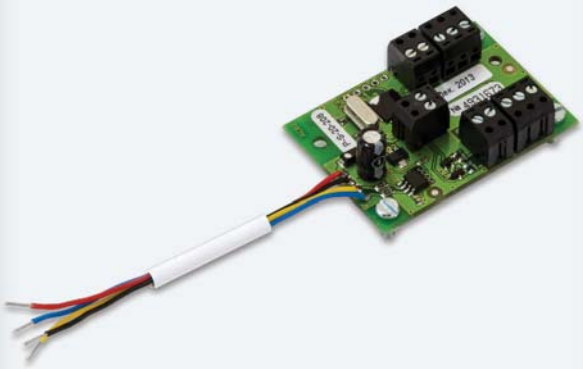
Materials and Finishes

Housing – stainless steel
Card reading distance for EM-Marin cards – 8cm, for HID cards – 6 cm.
The card container capacity – 350 cards

Compatible with

CT/L04 turnstile/lock controller

AC02 CONVERTER



+40° +1° | 12 V DC power supply | 2 readers | RS-485/ Wiegand

Application

The AC02 converter is designed for connection to the controller CT/L04 of up to 2 readers through Wiegand-26 Interface (or Wiegand 34, 37, 40, 42).

Features and Benefits

The converter ensures:

- data reception from two readers via Wiegand Interface (Wiegand-26, 34, 37, 40, 42) and transmission of these data to the controller via RS-485;
- control of LED indicators of 2 readers by the commands of the controller via RS-485

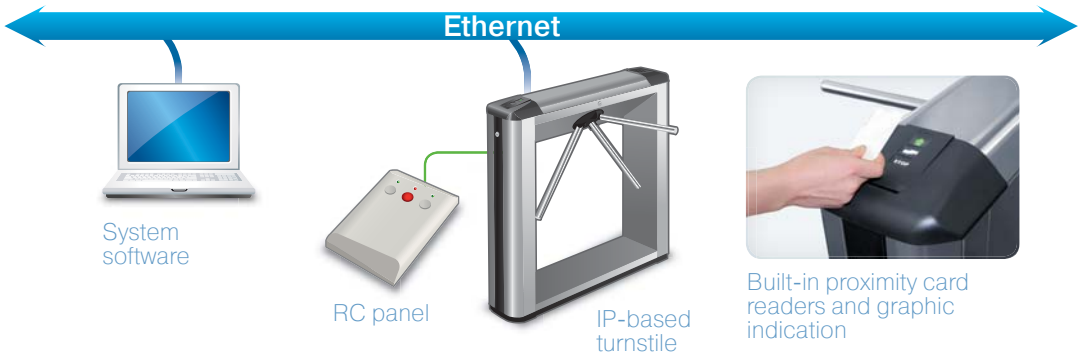
There are 2 versions of the converter – with or without housing.

PERCo IP-Stiles

PERCo IP-Stiles are designed as a complete access control system (ACS), as standard including hardware and software that enables you to arrange controlled access to a facility by proximity cards.

IP-Stile standard package includes:

- a turnstile (type chosen by a Client at the time of order)
- 2 built-in proximity card readers
- a built-in controller
- PERCo software.



PERCo IP-Stile software

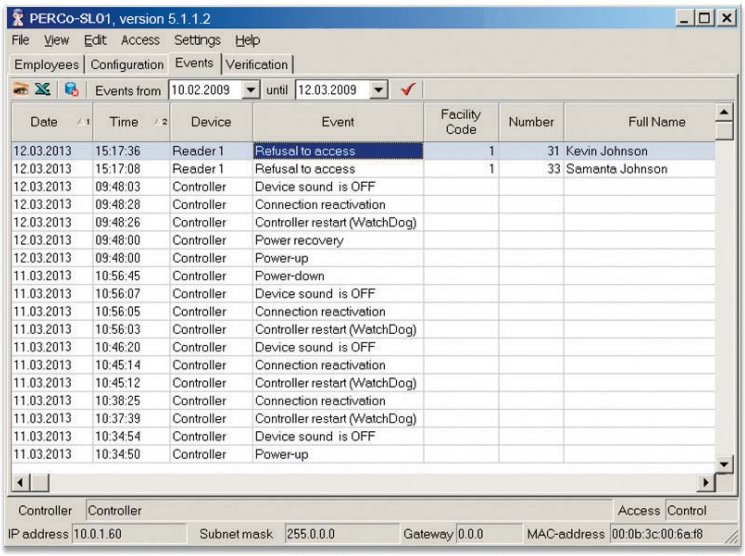
PERCo IP-Stiles, based on a tripod turnstile, box tripod turnstile or a waist-high rotor turnstile can be operated:

- by SL-01 software (basic single-user software supplied with a standard delivery set)
- by SL-02 software (software with video verification, optional)
- through a web-interface (free of charge).

SL-01 software

SL-01 is basic software supplied in a standard delivery set with all IP-Stiles, allowing for basic functions such as:

- administration of employee lists (full names);
- issue of access cards;
- access rights assignment under authorized/non-authorized principle;
- setting and change of access modes;
- hardware configuration;
- database event logging with data exportable, e.g. to an Excel file.



Screenshot of event list

SL-02 software

SL-02 software with video identification enables to prevent unauthorized use of valid ID cards that have been lost, stolen or otherwise improperly obtained. The entrant's face can be checked against the card holder's photo from the database which appears on the screen when the card is presented.

Additionally to the functions provided by the SL-01 basic software, SL-02 allows for:

- real-time capture of dynamic video image;
- employee and visitor identification and verification by means of photo and video frame images.

Sample screenshot of video identification

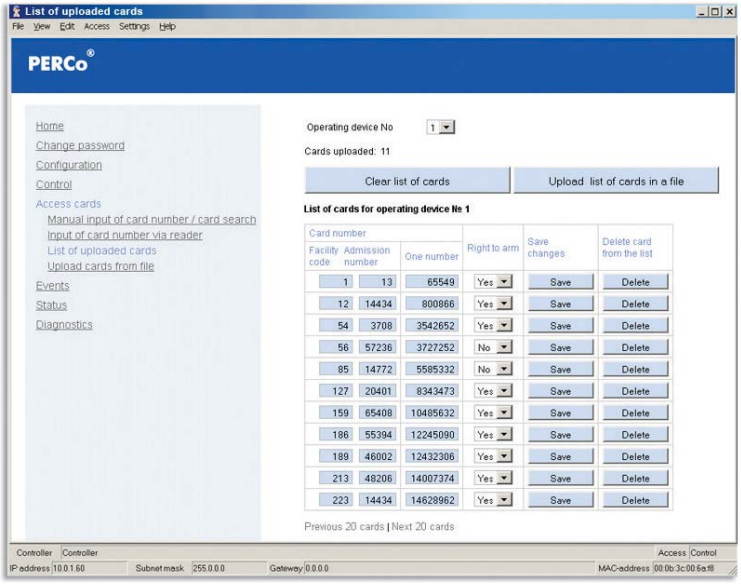
Web-interface

Web-interface allows operation of the IP-Stiles remotely without installation of any software.

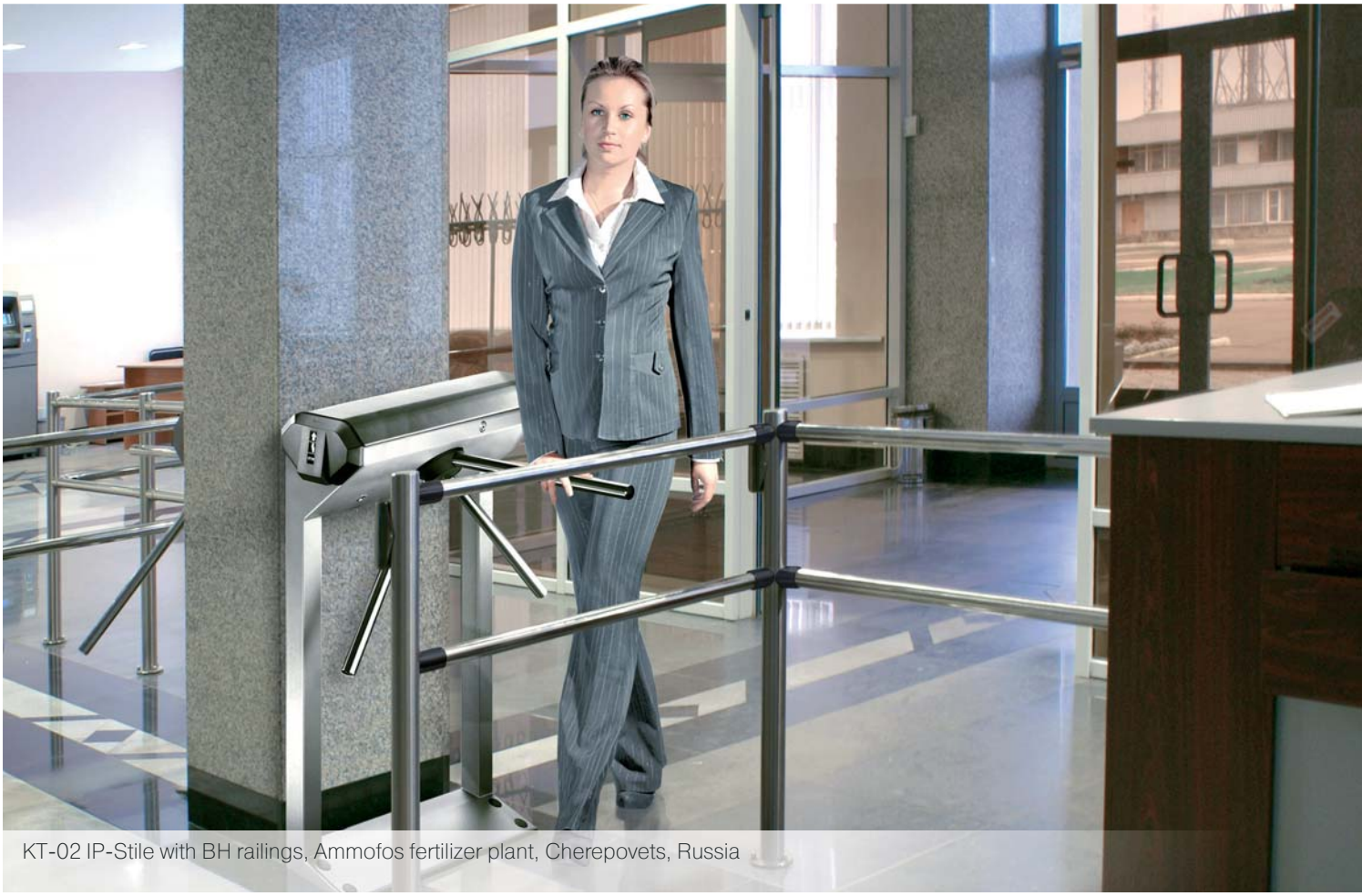
In order to access the web-based interface of a controller, the IP-address of the controller should be inserted in the URL bar of a browser. Access is protected with a password.

Using the web-based interface enables you to:

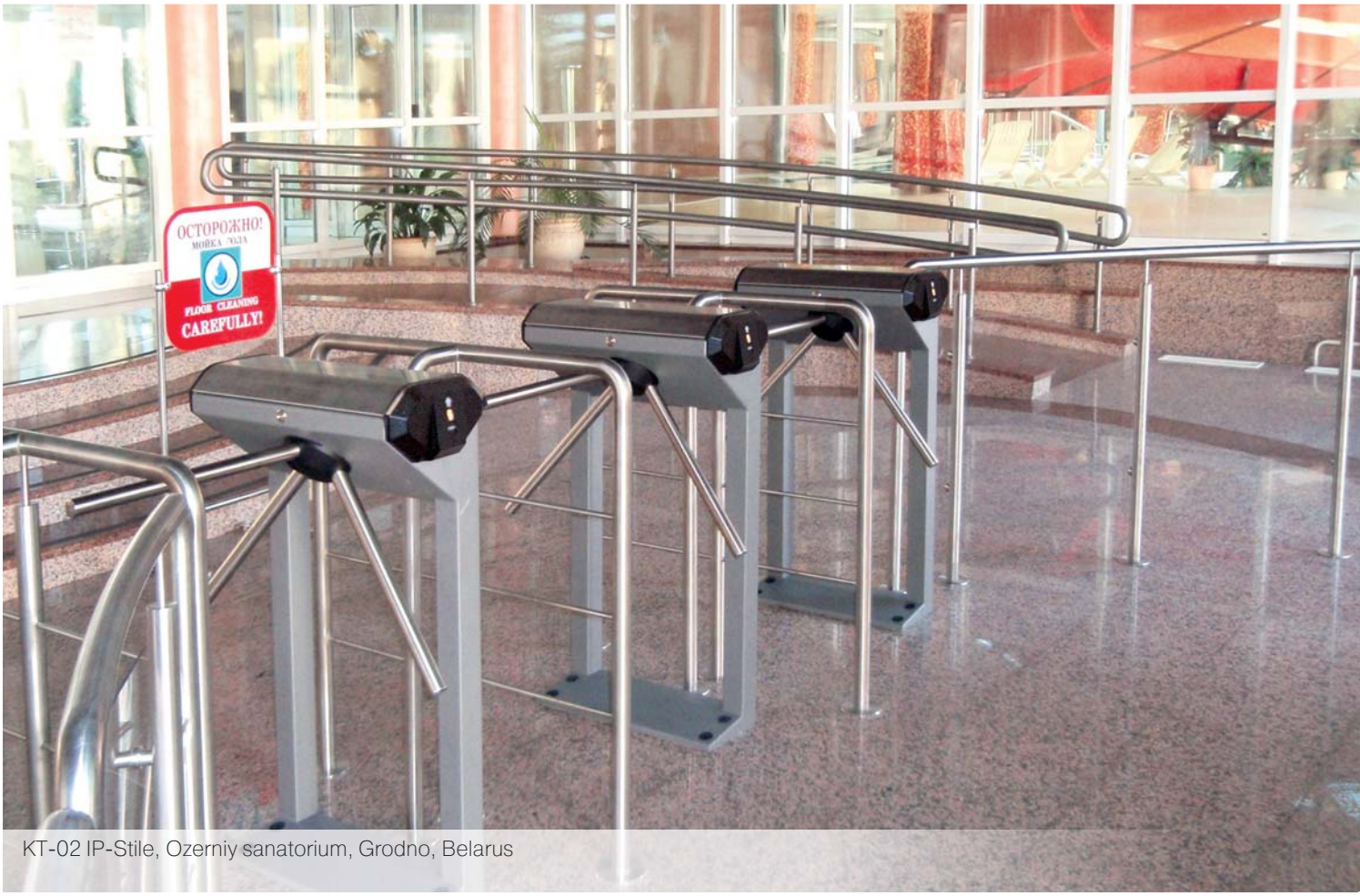
- run a test and do settings of all controllers;
- view the event log of a selected controller, track number of passed cards as well as time of passes;
- load, view and revise lists of cards.



Screenshot of web-interface

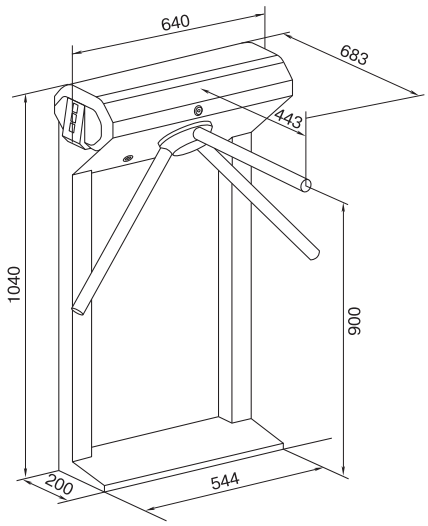


KT-02 IP-Stile with BH railings, Ammofos fertilizer plant, Cherepovets, Russia



KT-02 IP-Stile, Ozerniy sanatorium, Grodno, Belarus

KT-02 IP-STILE



Application

The KT-02 IP-Stile system is a turnkey solution to provide effective and secure access control at the rate of 30 persons per min.

Initial installation of the KT-02 IP-Stile is easy and fast: fix the turnstile to the floor with anchor bolts and connect it to a 12V power supply and the Ethernet network.

Delivery set

The standard delivery set includes:

- turnstile with built-in access controller and two proximity card readers
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)
- SL-01 single-user software

For optimum control of pedestrian flow, the KT-02 IP-Stile can be supplied with matching railings.

Materials and Finishes

Turnstile housing – powder coated steel. Sand-paper powder coating with pearl mica effect:

Dark grey

Top cover, barrier arms – stainless steel.

Stainless steel

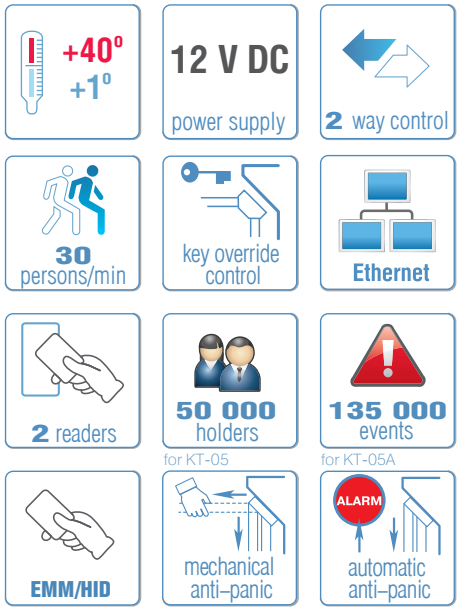
Card reader, built-in

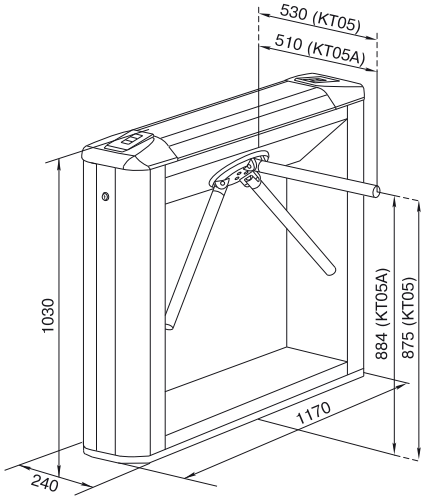
Mechanical anti-panic

KT-05 IP-Stiles, «GAP» business center, Saint Petersburg, Russia

KT-05 IP-Stiles with BH railings, Regional Finance and Economy Institute, Voronezh, Russia

KT-05/KT-05A IP-STILE





Application

The KT-05 IP-Stile is a turnkey hardware + software solution to provide effective and secure access control.

Delivery set

- turnstile with built-in controller and two proximity card readers
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)
- SL-01 single-user software

Design

With all the electronics, including card readers and a controller built-in, supplied with free single-user software the KT-05 IP-Stile is a complete one-stop solution for your entrance point. Smart design in stainless steel will be ideal for banks, office buildings, financial and educational institutions.

Materials and Finishes

Turnstile housing/barrier arms – stainless steel.

Stainless steel

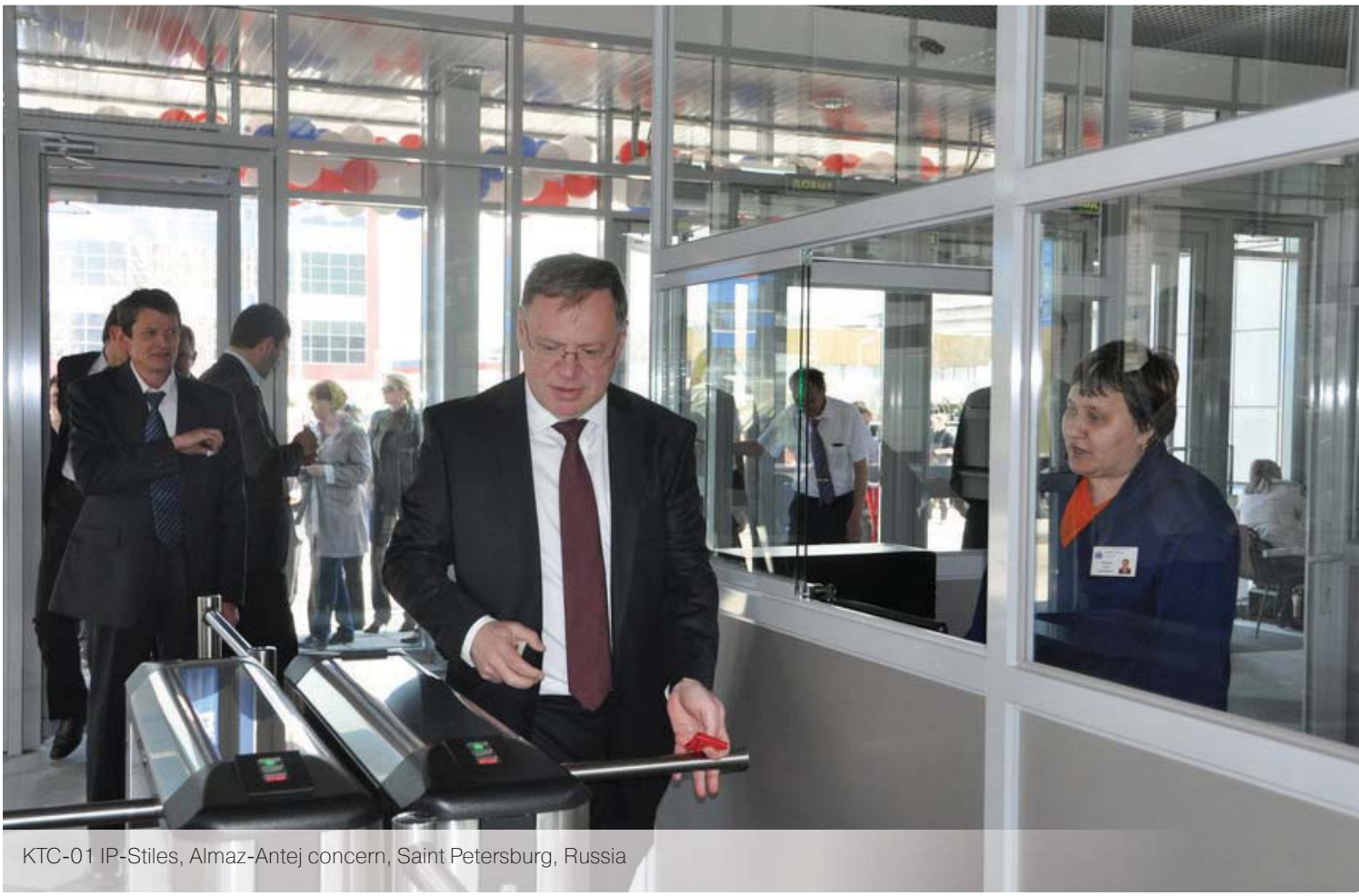
for KT-05A

Automatic anti-panic

for KT-05

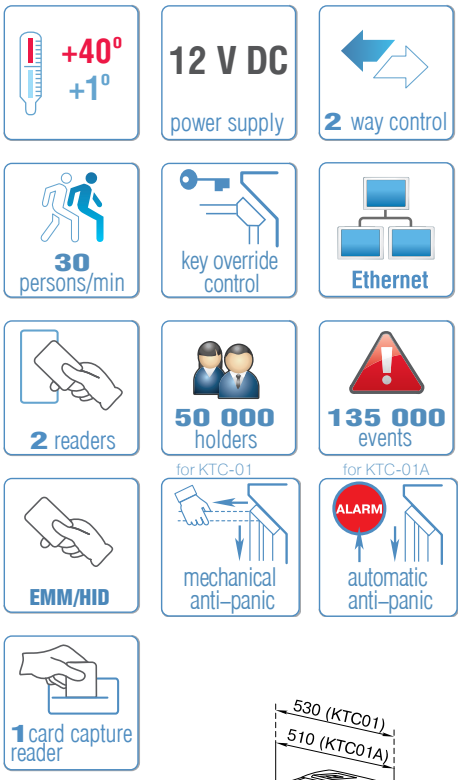
Mechanical anti-panic

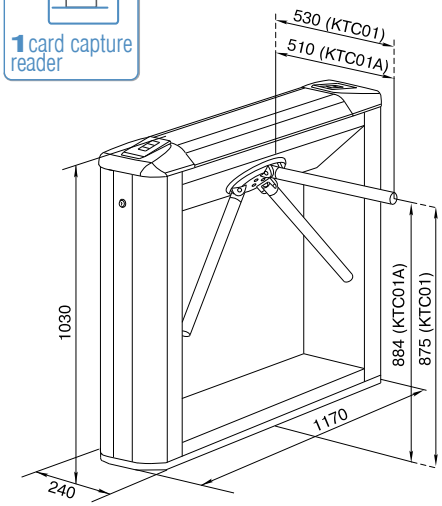
KTC-01 IP-Stiles, «Helios» business centre, Moscow, Russia



KTC-01 IP-Stiles, Almaz-Antej concern, Saint Petersburg, Russia

KTC-01/ KTC-01A IP-STILE





Application

The KTC-01/KTC-01A IP-Stile is an effective and multi-functional turnkey solution that ensures the secure access control of personnel with permanent access cards and visitors with guest access cards. A guest card meant to return upon leaving the facility will be captured by the built-in card capture reader.

Delivery set

- turnstile with built-in controller, two proximity card readers and a card capture reader (EMM/HID)
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)
- SL-01 single-user software

Design

With nicely built-in card readers and a card capture reader supplied with free single-user software the KTC-01/KTC-01A is a complete one-stop solution that will save your time, expenses and installation efforts.

Materials and Finishes

Turnstile housing/barrier arms – stainless steel.

Stainless steel

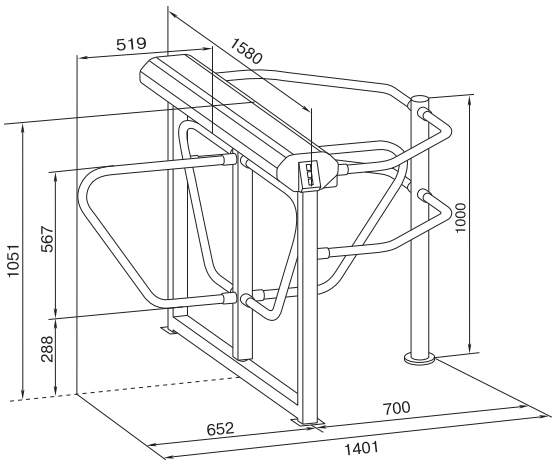
for KTC-01A

Automatic anti-panic

for KTC-01

Mechanical anti-panic

KR-05 IP-STILE



Application

The KR-05 IP-Stile provides a budget solution based on a traditional rotor turnstile to control pedestrian flow at the entrances of production facilities, offices and educational institutions.

Delivery set

- rotor turnstile with four barrier wings, built-in access controller and two proximity card readers
- guide barrier set
- remote control panel
- SL-01 single-user software

Design

Entering and exiting employees present their access cards to built-in turnstile readers for validation. While the large barrier wings provide comfort of passage, the simple design makes the price attractive.

Materials and Finishes

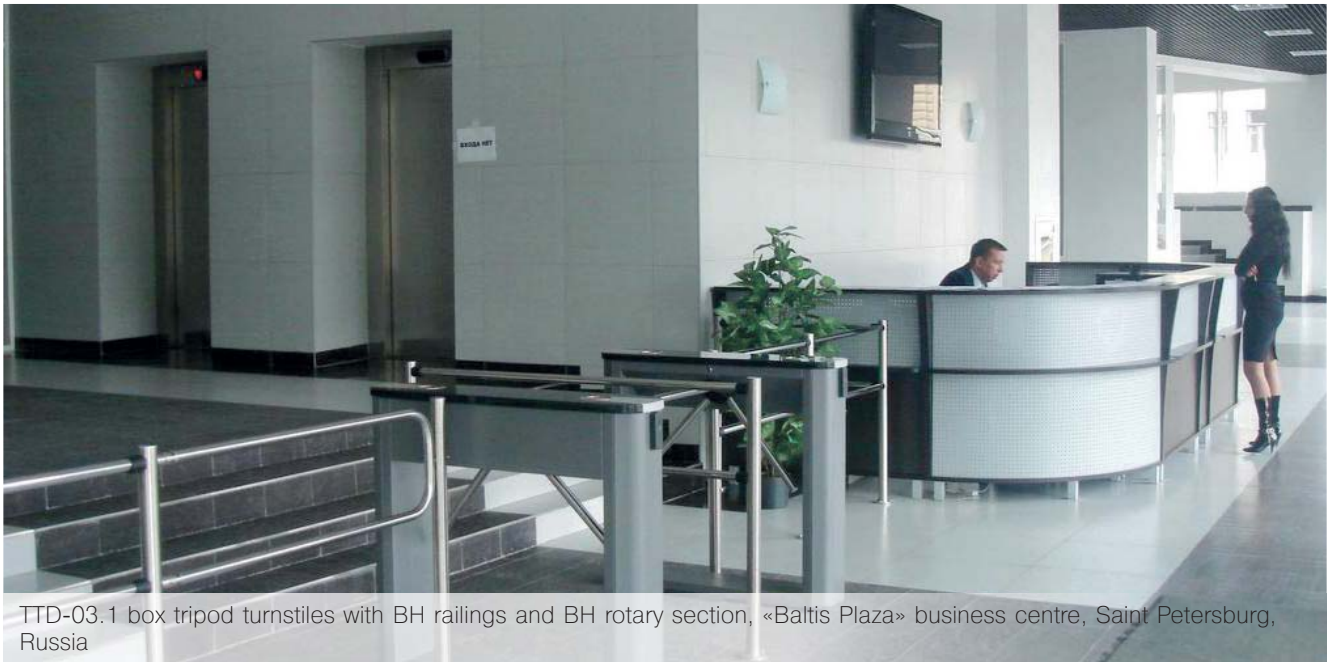
Turnstile housing – powder coated steel. Sandpaper powder coating with pearl mica effect:

Dark grey

Top housing cover and barrier wings– stainless steel.

Stainless steel

Card reader, built-in



TTD-03.1 box tripod turnstiles with BH railings and BH rotary section, «Baltis Plaza» business centre, Saint Petersburg, Russia

TTR-04.1R tripod turnstile, Laugardalslaug swimming pool, Iceland

PERCo turnstiles, gates & railings

PERCo turnstiles, gates and railing systems are used for control of pedestrian flows and access at a wide variety of settings including industrial, commercial and transport facilities, financial institutions, sports and leisure venues, etc.
The product family of entrance control products designed and manufactured by PERCo covers a wide range of security, dimensional and aesthetical requirements and includes:

- compact tripod turnstiles
- box tripod turnstiles
- waist-high rotor turnstiles
- waist-high swing gates
- full height rotor turnstiles
- full height security gates
- railing systems

Combined with access control systems, biometrical, ticketing, fire alarm or similar devices, PERCo entrance control products provide the level of security to meet even the most exacting requirements. A combination of elegant exterior, fast throughput and proven high reliability makes PERCo entrance control products a universal solution for entrances of buildings, offices, outlets, leisure and entertainment facilities.

PERCo turnstiles and gates can be supplied with matching railings which enables to form passageways of any desired configuration.

RTD-03S rotor turnstiles, Arcus II business centre, Moscow, Russia

RTD-15 full height rotary turnstiles with RTC-15R canopies, Nissan Plant, Saint Petersburg, Russia

The hinged railing sections of rotary type are purpose-designed to provide unobstructed and fast escape routes in the event of an emergency, or for the disabled people.

Main features of PERCo turnstiles:

- stand-alone operation / operation as part of access control systems
- models for indoor and outdoor applications
- high throughput
- bi-directional passage control
- LED directional indication / status lights
- anti-panic folding arms
- safe supply voltage 12-36V
- key override control for emergency situations
- smooth reset of barrier arms after each passage
- simple installation with anchor bolts
- complete turnkey delivery set

With over 25 years expertise in the security industry, PERCo delivers products with high reliability and performance field-proven at tens of thousands of installations worldwide.

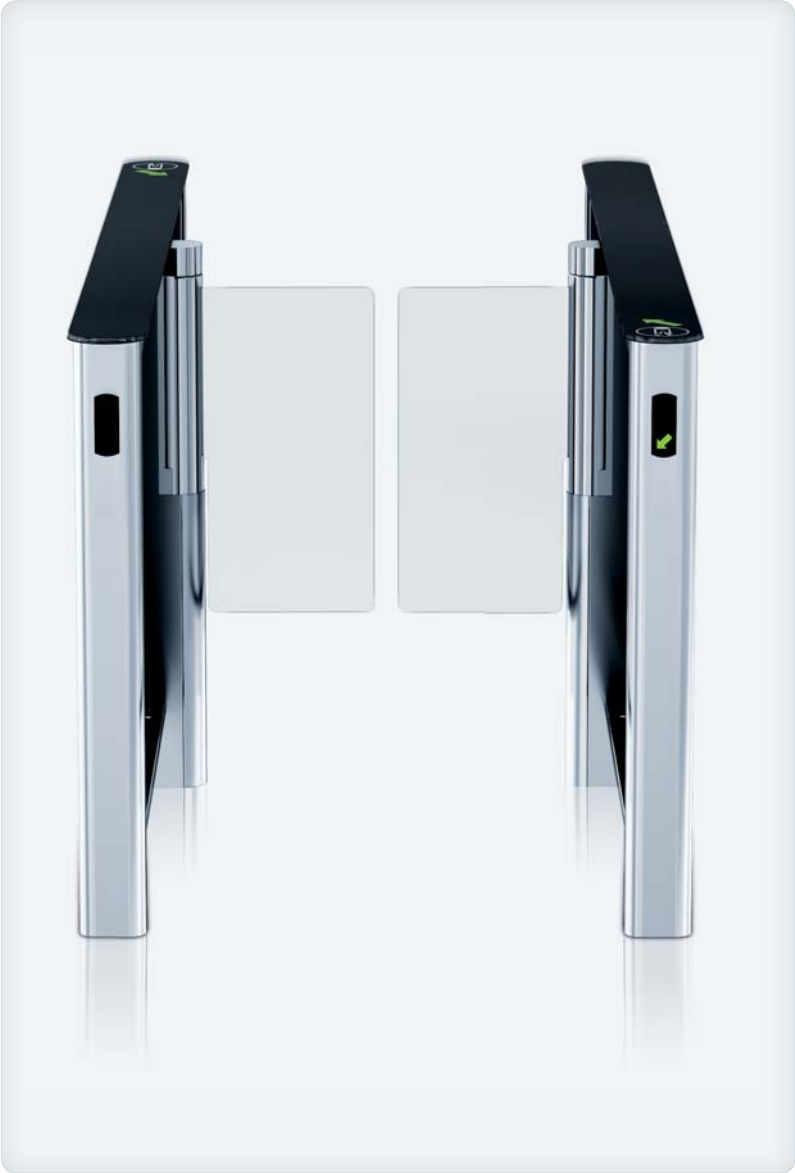
PERCo		Passage way width, mm	Turnstiles											
			Tripod					Box tripod						
			TTR-08A	TTR-04.1	TTR-04CW	TTR-07	T-5	TTD-08A	TTD-03.2	TTD-03.1	TB-01	TB-01A	TBC-01	TBC-01A
Barrier arms & swing panels	AS-05	500					✓							
	AS-04	600		✓	✓		✓				✓		✓	
	AA-04 anti-panic	600		✓			✓				✓		✓	
	AS-01	500							✓	✓				
	AA-01 anti-panic	500							✓	✓				
	automatic anti-panic	500	✓											
		550				✓		✓				✓		✓
	AGG-650	700												
	AGG-900	950												
	ASG-650	700												
	ASG-850	900												
	AG-650	700												
	AG-900	950												
	AG-1100	1150												
	swing panel	650/900												
	sliding panel	600/900												
Housing finishes & colors	R color (light beige)*			✓	✓									
	G color (dark grey)*			✓		✓			✓	✓				
	E color (black glitter with lacque)*			✓										
	Light grey*						✓							
	Stainless steel		✓					✓	✓	✓	✓	✓	✓	✓
Features (built-in)	Readers										✓	✓	✓	✓
	Card capture reader												✓	✓
	Controller													
	Software (free)													
	WEB-interface													
Appli-cation	Indoor			✓		✓	✓		✓	✓	✓	✓	✓	✓
	Outdoor		✓		✓			✓						
Drive	Motorized													
	Electromechanical		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Operation	Fail-safe (NO)		✓			✓		✓				✓		✓
	Fail-secure (NC)			✓	✓		✓		✓	✓	✓		✓	

* Up-to-date powder coating technology (USA) and surface preparation line (Germany).

** IP-Stile - complete access control system.

Swing gates			Rotor			Speedgates		IP-Stiles**					
WMD-06	WMD-05S	WHD-05	RTD-03S	RTD-15.1R	RTD-15.2R	ST-01	ST-02	KT-02	KT-05	KT-05A	KTC-01	KTC-01A	KR-05
									✓		✓		
									✓		✓		
								✓					
								✓					
										✓		✓	
✓													
✓													
		✓											
		✓											
	✓												
	✓												
	✓												
						✓							
							✓						
		✓		✓	✓								
		✓						✓					✓
		✓											
✓	✓		✓			✓	✓		✓	✓	✓	✓	
								✓	✓	✓	✓	✓	✓
											✓	✓	
								✓	✓	✓	✓	✓	✓
								✓	✓	✓	✓	✓	✓
								✓	✓	✓	✓	✓	✓
✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓	✓
				✓	✓								
✓	✓		✓	✓		✓	✓						
		✓			✓			✓	✓	✓	✓	✓	✓
✓		✓				✓	✓			✓		✓	
	✓		✓	✓	✓			✓	✓		✓		✓

ST-01 SPEED GATE



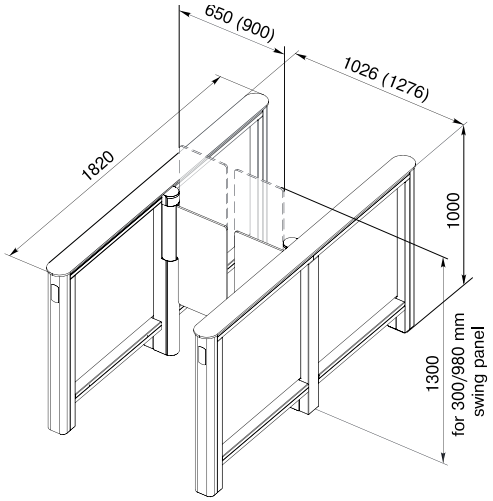
+45° +1°

2 way control

24 V DC power suply

105x2 W power consumption

M motor drive



Three sizes of swing panels
300x600 mm
300x980 mm
430x600 mm

Application

The ST-01 speed gate with swing panels is designed in a modern and elegant style and provides an ideal contactless solution for access control at sites with high aesthetic and comfort requirements. The ST-01 is perfectly suitable for a wide range of indoor applications and can be installed in offices, banks, administrative buildings, exhibition and business centres.

The ST-01 speed gate is available with three different sizes of swing panels. The system of infrared sensors ensures the security of passage at high throughput.

In emergency situations after receiving a signal from an ACS or an emergency button the swing panels are opened in a predetermined direction, in case of a power loss the swing panels are unlocked.

Delivery set

- two gate posts with built-in electronics
- two swing panels
- remote control panel

Design

The ST-01 is equipped with two LED directional indicators on the front panels and the LED indication of the current mode (open/closed) on the top cover.

The gate housing has specially designed places for concealed mounting of proximity card readers (produced by PERCo or other manufactures).

Materials and Finishes

Gate posts – stainless steel
Filler panel (for gate posts) – 8 mm tempered glass
Top covers – 10 mm tempered glass
Swing panels – 10 mm tempered glass

ST-02 SPEED GATE

Application

The ST-02 speed gate with sliding panels is designed in a modern and elegant style and provides an ideal contactless solution for access control at sites with high aesthetic and comfort requirements. The ST-02 is perfectly suitable for a wide range of indoor applications and can be installed in offices, banks, administrative buildings, exhibition and business centres.

The ST-02 speed gate is available in two versions: with a standard 600 mm passageway or with an extended 900 mm passageway for a comfortable access of people in wheelchairs, mothers pushing prams or shoppers carrying bulky goods. The system of infrared sensors ensures the security of passage at high throughput.

Fail -safe operation ensures free passage in an emergency case.

Delivery set

- two gate posts with built-in electronics
- two sliding panels
- remote control panel

Design

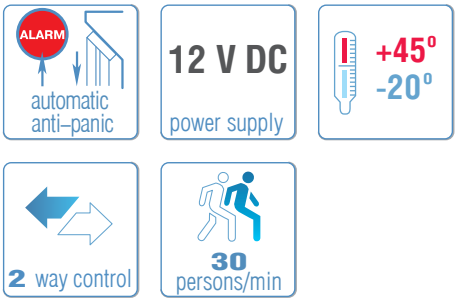
The ST-02 is equipped with two LED directional indicators on the front panels and the LED indication of the current mode (open/closed) on the top cover.

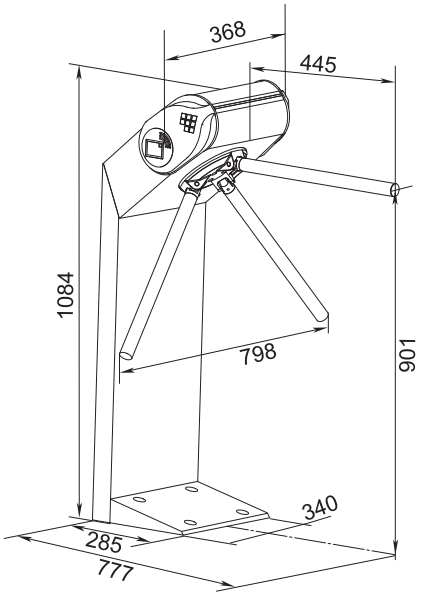
The gate housing has specially designed places for concealed mounting of proximity card readers (produced by PERCo or other manufactures).

Materials and Finishes

Materials and Finishes
Gate posts – stainless steel
Top covers – 10 mm tempered glass
Sliding panels – 10 mm tempered glass

TTR-08A COMPACT TRIPOD TURNSTILE WITH AUTOMATIC ANTI-PANIC





Application

The TTR-08A weatherproof compact tripod turnstile is designed for outdoor use (without shelter). It is fitted with automatic anti-panic folding arms and LED indication. In case of power loss or by a signal from an ACS or emergency button the barrier arm automatically falls down leaving the passage free in emergency situations.

With its modern and elegant design the TTR-08A offers a secure and modern-looking solution for various outdoor and indoor applications.

Delivery set

- turnstile with built-in electronics
- automatic anti-panic folding arms
- remote control panel

Design

The turnstile housing has specially designed places for concealed mounting of proximity card readers.

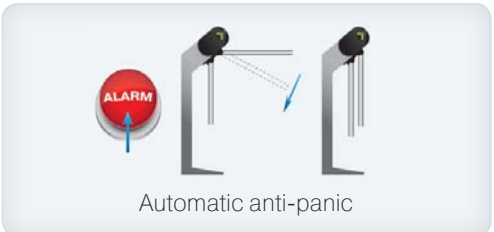
The reader operating zones are indicated on the lateral covers of the turnstile with special pictograms.

Materials and Finishes

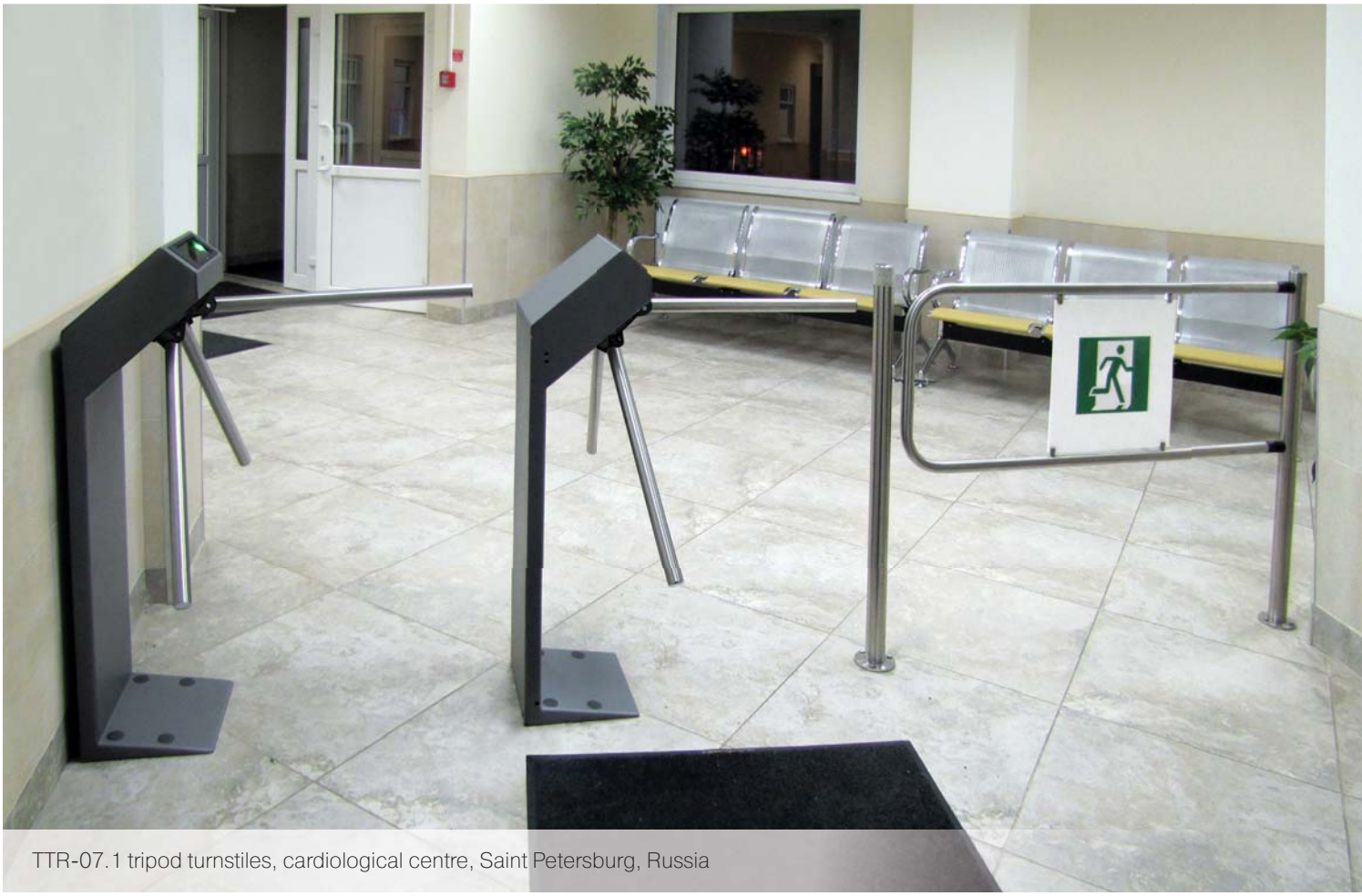
Turnstile housing – stainless steel

Barrier arms – stainless steel

Stainless steel



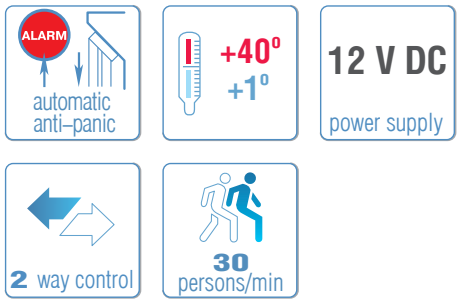
Automatic anti-panic

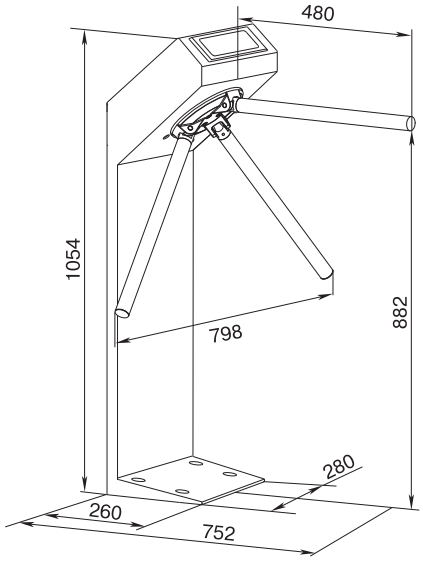


TTR-07.1 tripod turnstiles, cardiological centre, Saint Petersburg, Russia

TTR-07.1 tripod turnstiles, business centre, Moscow, Russia

TTR-07 COMPACT TRIPOD TURNSTILE WITH AUTOMATIC ANTI-PANIC





Automatic anti-panic folding arms

Application

The TTR-07 tripod turnstile is a reliable compact solution featuring automatic anti-panic folding arms.

At a power loss, by a signal from an ACS or an emergency button the barrier arm blocking the passage automatically falls down leaving the passage free. When the power is restored to bring back the folded arm into operating position (blocking the passage) just lift it manually.

Delivery set

- turnstile with built-in electronics
- remote control panel
- automatic anti-panic barrier arms

Design

The TTR-07 tripod turnstile is a reliable compact solution featuring automatic anti-panic folding arms.

Materials and Finishes

Turnstile housing – steel.

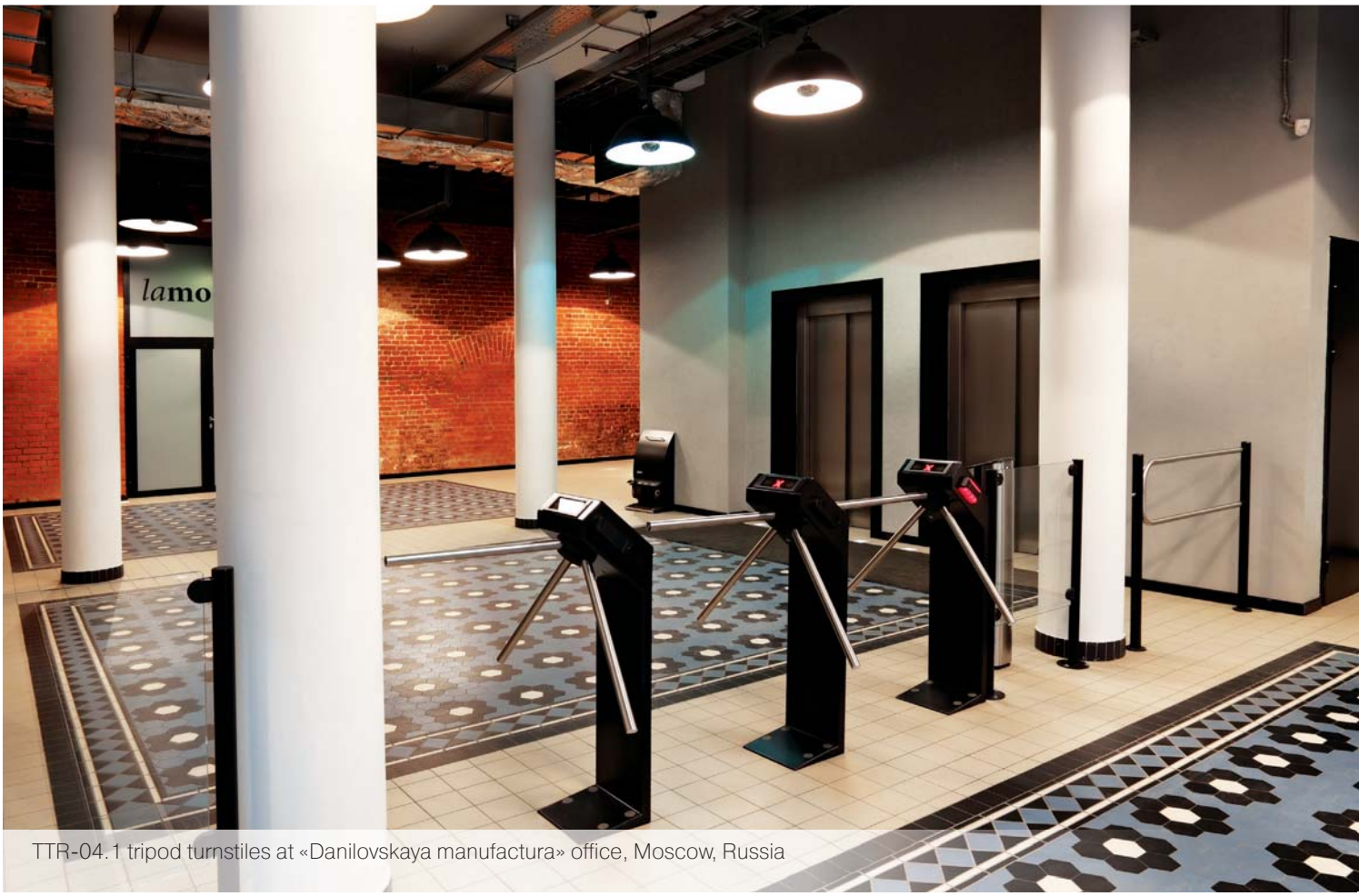
Sandpaper powder coating with pearl mica effect:

dark grey

Barrier arms - stainless steel.

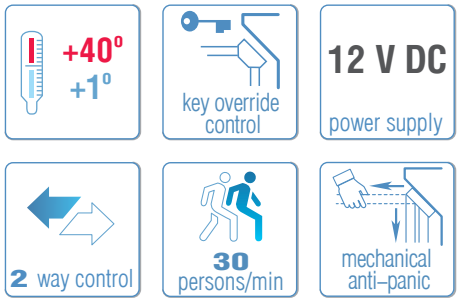
Automatic anti-panic

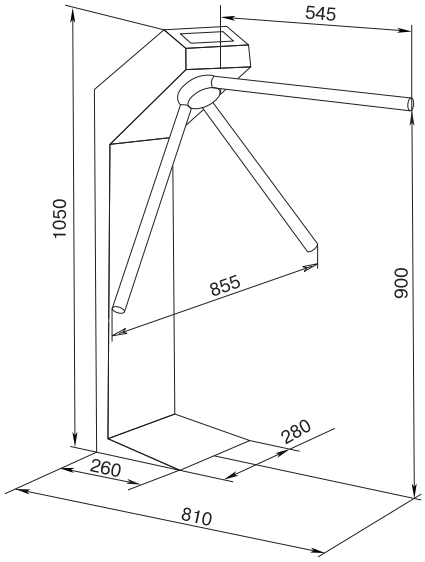
TTR-04.1 tripod turnstiles, WHD-04R swing gate and BH railings at Entrance hall, ELBA, a.s., Kremnica, Slovakia

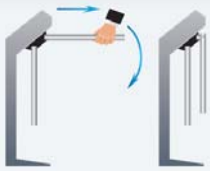


TTR-04.1 tripod turnstiles at «Danilovskaya manufactura» office, Moscow, Russia

TTR-04.1 COMPACT TRIPOD TURNSTILE







Mechanical anti-panic

Application

The TTR-04.1 tripod turnstile is a universal access control solution with high throughput capacity and compact design enabling effective management of even intense pedestrian flows.

Available colour options make the TTR-04.1 suitable for various indoor applications: offices, banks, exhibition centres, museums, administrative buildings, retail outlets, railway terminals, airports, etc.

Delivery set

- turnstile with built-in electronics
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)

Materials and Finishes

Turnstile housing – steel; corrosion-resistant zinc coat plus fine structure powder coating finish.

Sandpaper powder coating with pearl mica effect:

light beige

dark grey

Powder coating with lacquered finish:

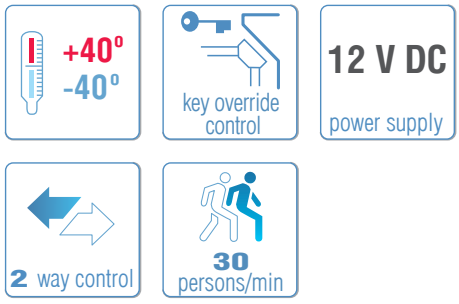
glitter black, starlit night

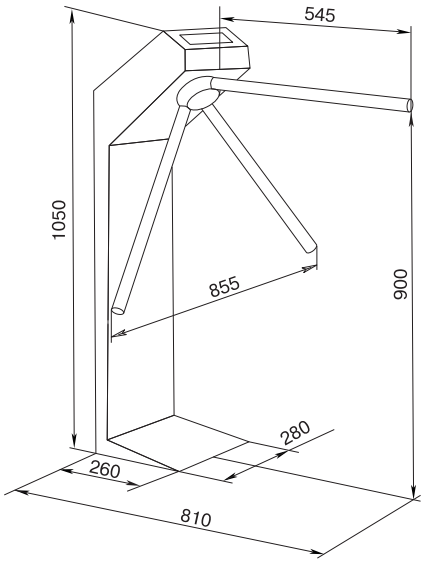
Barrier arms - stainless steel.

TTR-04CW tripod turnstiles, BSH Bosch und Siemens Hausgerdte GmbH office, Slovakia

TTR-04CW tripod turnstiles and BH railings at Sokolniki park, Moscow, Russia

TTR-04CW OUTDOOR COMPACT TRIPOD TURNSTILE





Application

The TTR-04CW tripod turnstile is designed for outdoor applications (under shelter) or in facilities without climate control. For better corrosion resistance the turnstile housing is coated with a layer of zinc 9 micron thick, applied by electro-chemical galvanizing, and after that with a powder coating finish. Together with a built-in thermocontrol system which keeps temperature inside the turnstile housing positive, improved coating makes the TTR-04CW a perfect solution for outdoor use.

Delivery set

- turnstile with built-in thermocontrol system
- remote control panel
- standard barrier arms

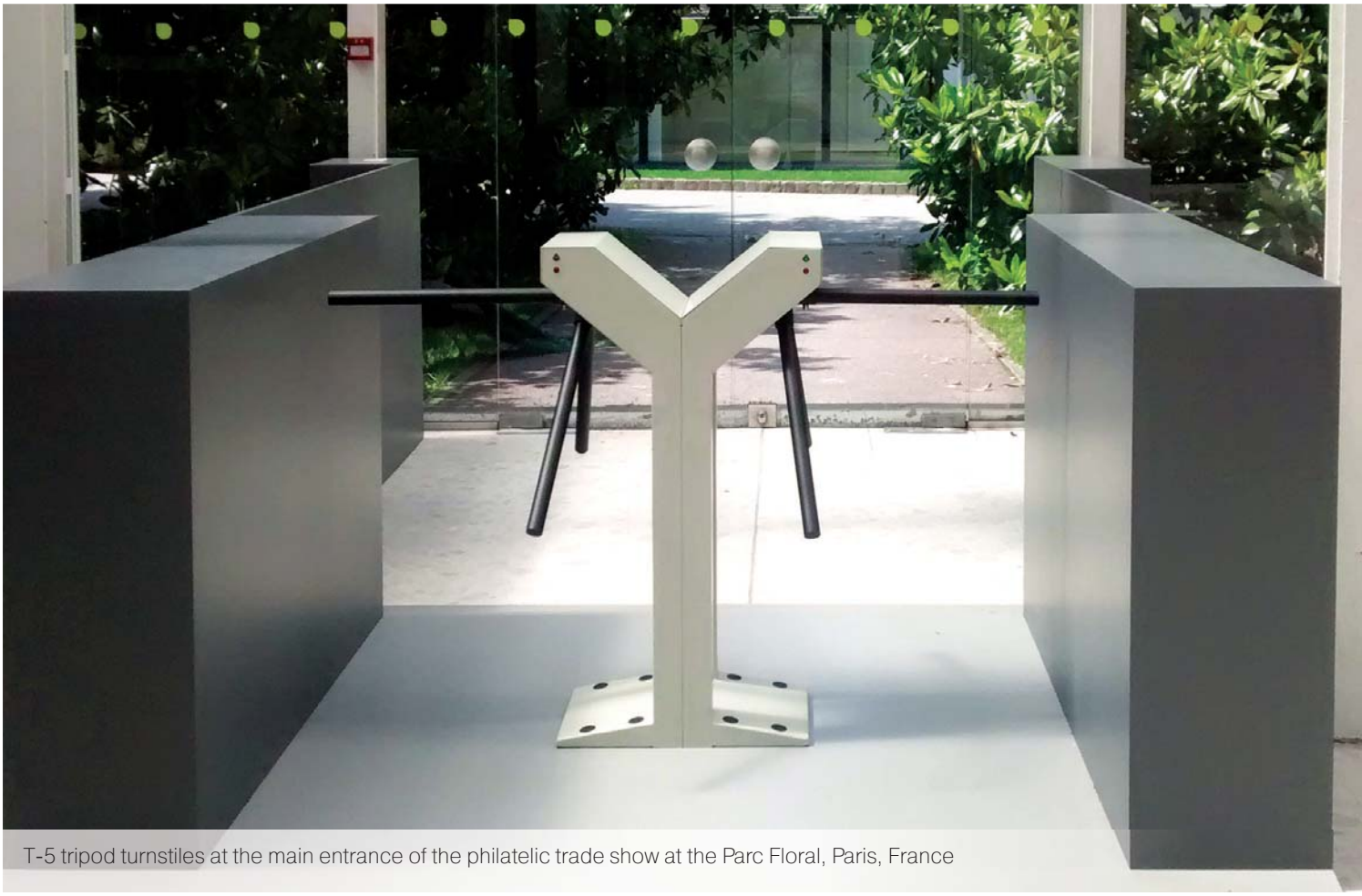
Materials and Finishes

Turnstile housing – steel; corrosion-resistant zinc coat plus fine structure powder coating finish.

Sandpaper powder coating with pearl mica effect:

light beige

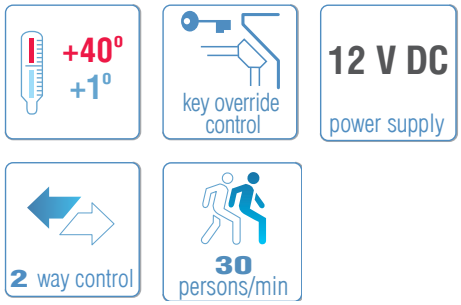
Barrier arms - stainless steel.

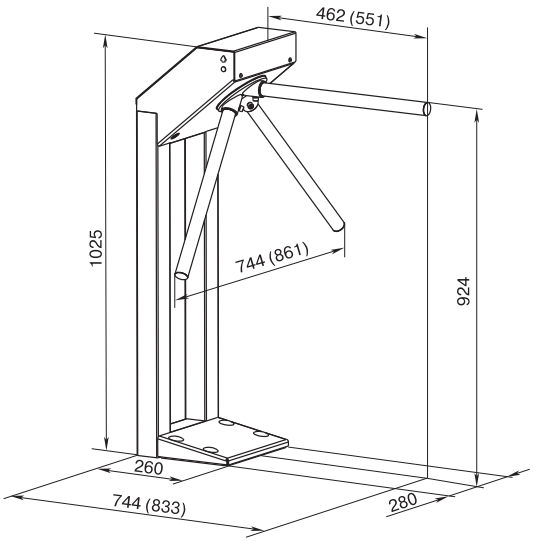


T-5 tripod turnstiles at the main entrance of the philatelic trade show at the Parc Floral, Paris, France

T-5 tripod turnstiles and BH railings installed in the state enterprise «The Russian Satellite Communications Company», Moscow, Russia

T-5 COMPACT TRIPOD TURNSTILE





Application

The T-5 turnstile provides a low-cost entrance control solution for businesses and organisations. With the functionality, mechanics and electronics similar to those of the TTR-04.1 series, this turnstile features a simpler construction design and light indication.

Delivery set

- turnstile with built-in electronics
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)

Materials and Finishes

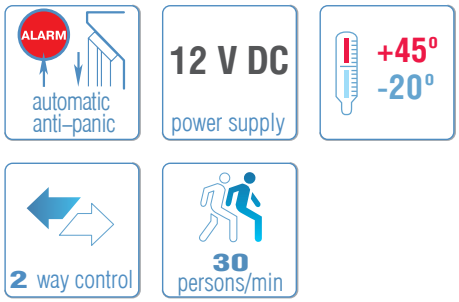
Turnstile housing – steel.

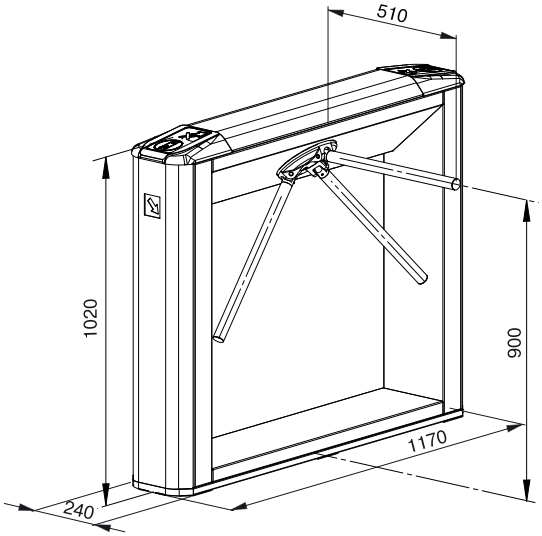
Sandpaper powder coating:

light grey

Barrier arms – stainless steel/painted steel, black.

TTD-08A BOX TRIPOD TURNSTILE WITH AUTOMATIC ANTI-PANIC





Application

The TTD-08A weatherproof box tripod turnstile is designed for outdoor use (without shelter). It is fitted with automatic anti-panic folding arms and LED indication. In the event of power loss or by a signal from an ACS or emergency button the barrier arm automatically falls down leaving the passage free in emergency situations.

The TTD-08A is designed in a modern stile and provides a secure, elegant and modern-looking solution for outdoor and indoor applications.

Delivery set

- turnstile with built-in electronics
- automatic anti-panic folding arms
- remote control panel

Design

The turnstile features two LED directional indicators on the front panels and the LED indication of the current mode (open/closed) on the top cover.

The turnstile housing has specially designed places for concealed mounting of proximity card readers.

The card reader operating zones on each side of the top cover are indicated with special pictograms.

Materials and Finishes

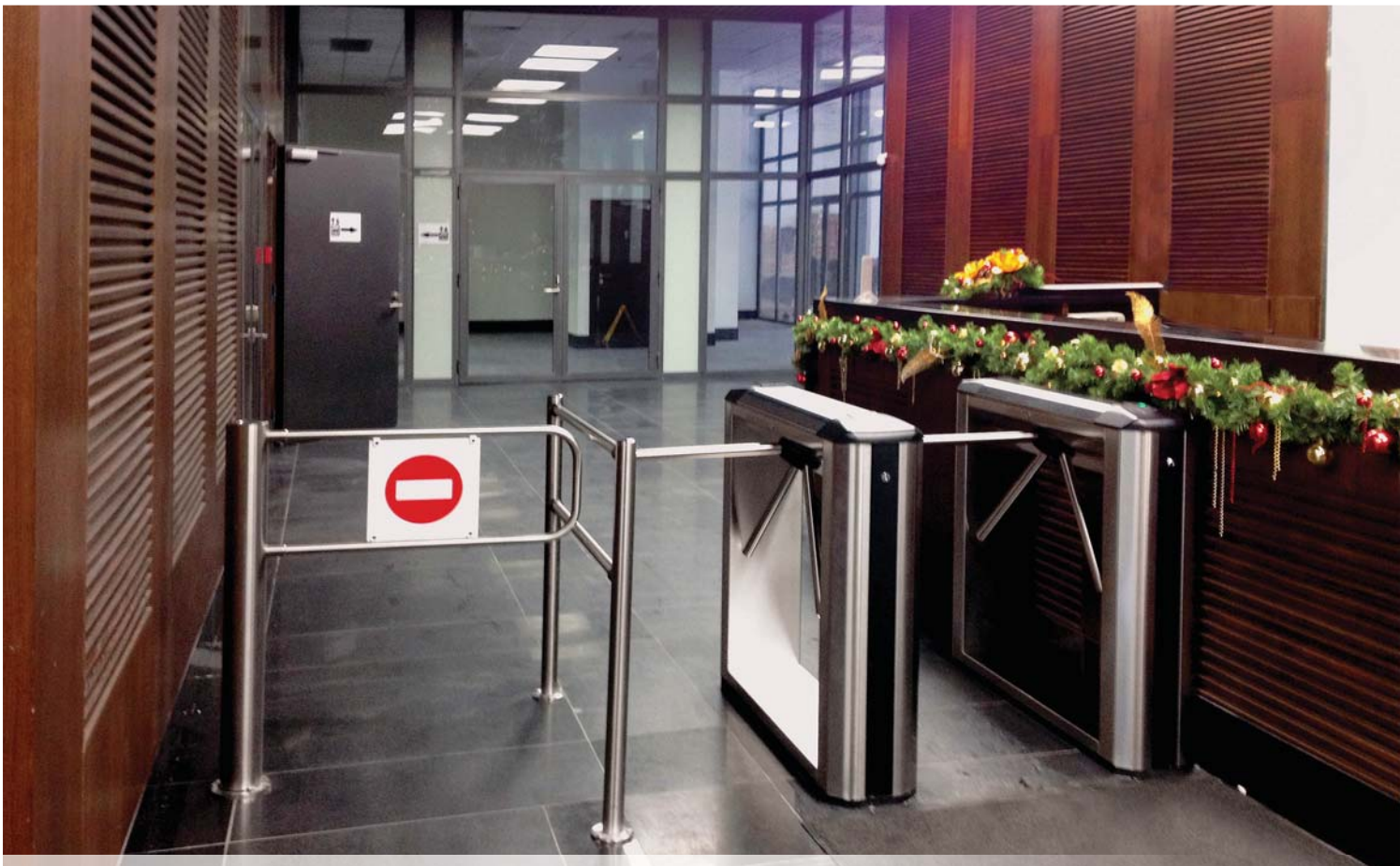
Turnstile housing – stainless steel

Barrier arms – stainless steel

Stainless steel

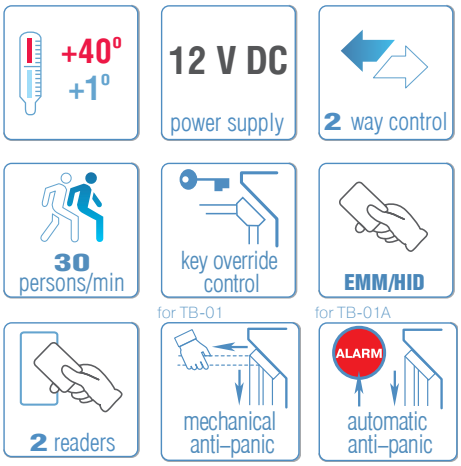
Automatic anti-panic

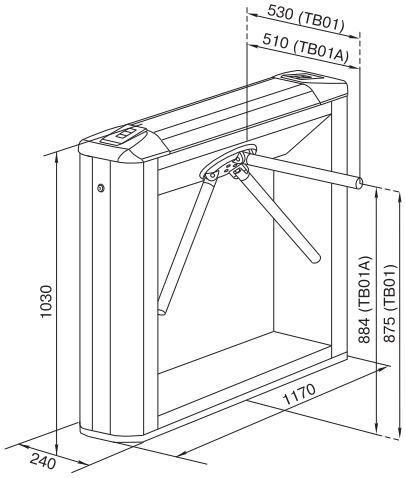
TB-01 box tripod turnstiles, «Mazapark» entertainment centre, Saint Petersburg, Russia



TB-01 box tripod turnstiles and WMD-05 swing gate at the entrance hall of «Saint-Petersburg» business centre, Saint Petersburg, Russia

TB-01/TB-01A BOX TRIPOD TURNSTILE





Card reader, built-in

Application

The TB-01 box tripod turnstile offers an elegant and compact solution for entrance ways with high flow at sites where interior aesthetics and security are high priorities. Fitted with two readers with Wiegand interface the turnstile can easily be integrated in any access control system.

Delivery set

- turnstile with built-in electronics and 2 readers (EMM/HID)
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)

Design

Thanks to its design, when installed in a line, the TB-01 housings ensure secure controlled passageway, providing space-effective solution for your entrance point. Inbuilt readers will save you time, expenses and installation efforts ensuring nice concealed mounting of card readers.

Materials and Finishes

Turnstile housing/barrier arms – stainless steel.

Stainless steel

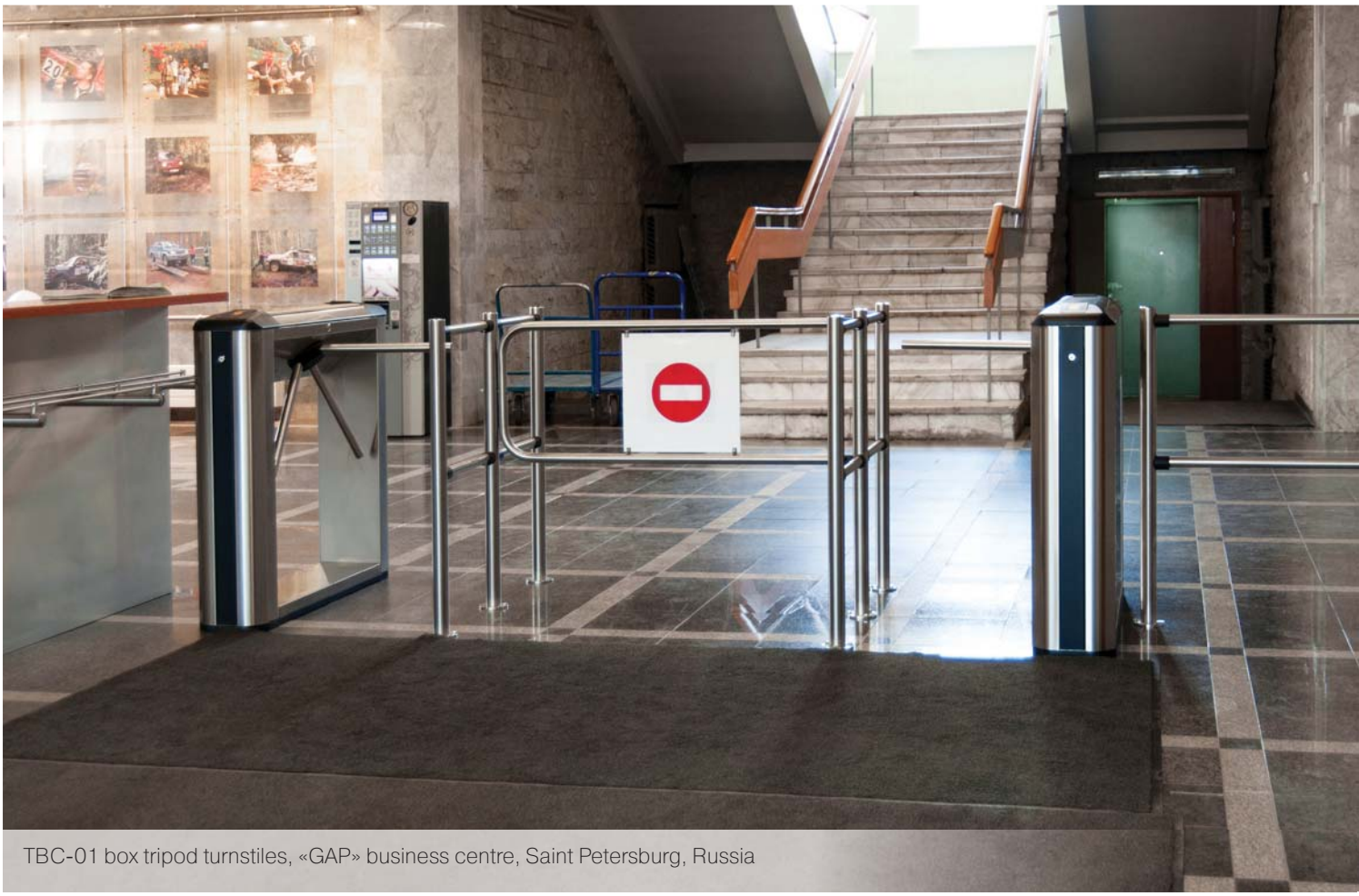
for TB-01A

Automatic anti-panic

for TB-01

Mechanical anti-panic

TBC-01 box tripod turnstiles and BH railings, Publishing company, Moscow, Russia



TBC-01 box tripod turnstiles, «GAP» business centre, Saint Petersburg, Russia

TBC-01/ TBC-01A BOX TRIPOD TURNSTILE

+40° +1°

12 V DC power supply

2 way control

30 persons/min

key override control

EMM/HID

for TBC-01

for TBC-01A

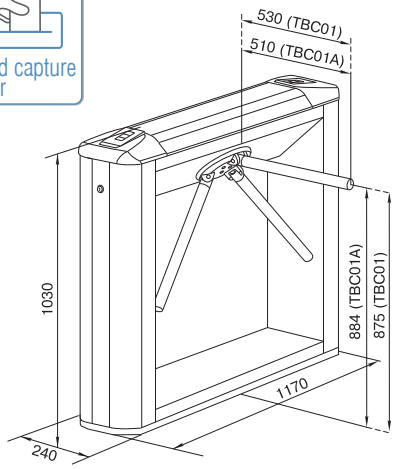
2 readers

mechanical anti–panic

ALARM

automatic anti–panic

1 card capture reader



Card reader, built-in

Card capture reader, built-in

Application

The TBC-01 turnstile is a multi-functional entrance solution for access control of personnel using permanent access cards and visitors required to return guest card upon leaving the facility. A guest card meant for return will be captured by the built-in card capture reader.

Delivery set

- turnstile with built-in electronics, 2 readers and a card capture reader (EMM/HID)
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)

Design

Nicely built-in card readers and a card capture reader will save you time, expenses and installation efforts, allowing you to arrange passage for personnel and visitors through one control device.

The card container capacity: 350 cards.

Materials and Finishes

Turnstile housing/barrier arms – stainless steel.

Stainless steel

for TBC-01A

Automatic anti-panic

for TBC-01

Mechanical anti-panic

TTD-03.1S box tripod turnstiles, Sberbank office, Moscow, Russia.

TTD-03.1S box tripod turnstiles, «Diamond Hall» business centre, Moscow, Russia.

TTD-03.1 BOX TRIPOD TURNSTILE

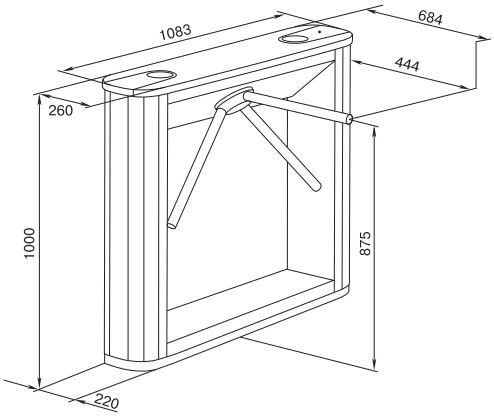
+40° +1°

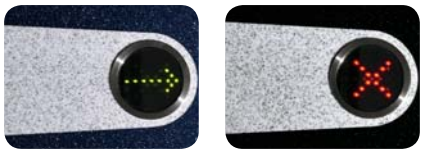
12 V DC power supply

2 way control

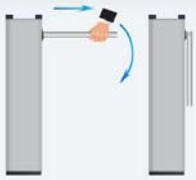
30 persons/min

key override control





LED directional indicators



Mechanical anti-panic (optional)

Application

The TTD-03.1 turnstiles offer optimal entrance control solution for places with high pedestrian flows. Especially suitable for entrances where fast pedestrian throughput and security must not come at the expense of aesthetics. Installed in one line, these turnstiles will create the passageway area without installation of extra guide barriers.

Delivery set

- turnstile with built-in electronics
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)

Design

The top cover made of artificial stone is radio-transparent for concealed mounting of proximity card readers and features two built-in LED directional indicators. Reader operating zones on the top cover stand out with a different colour.

Materials and Finishes

Turnstile housing – stainless/powder coated steel.

Stainless steel

Sandpaper powder coating with pearl mica effect:

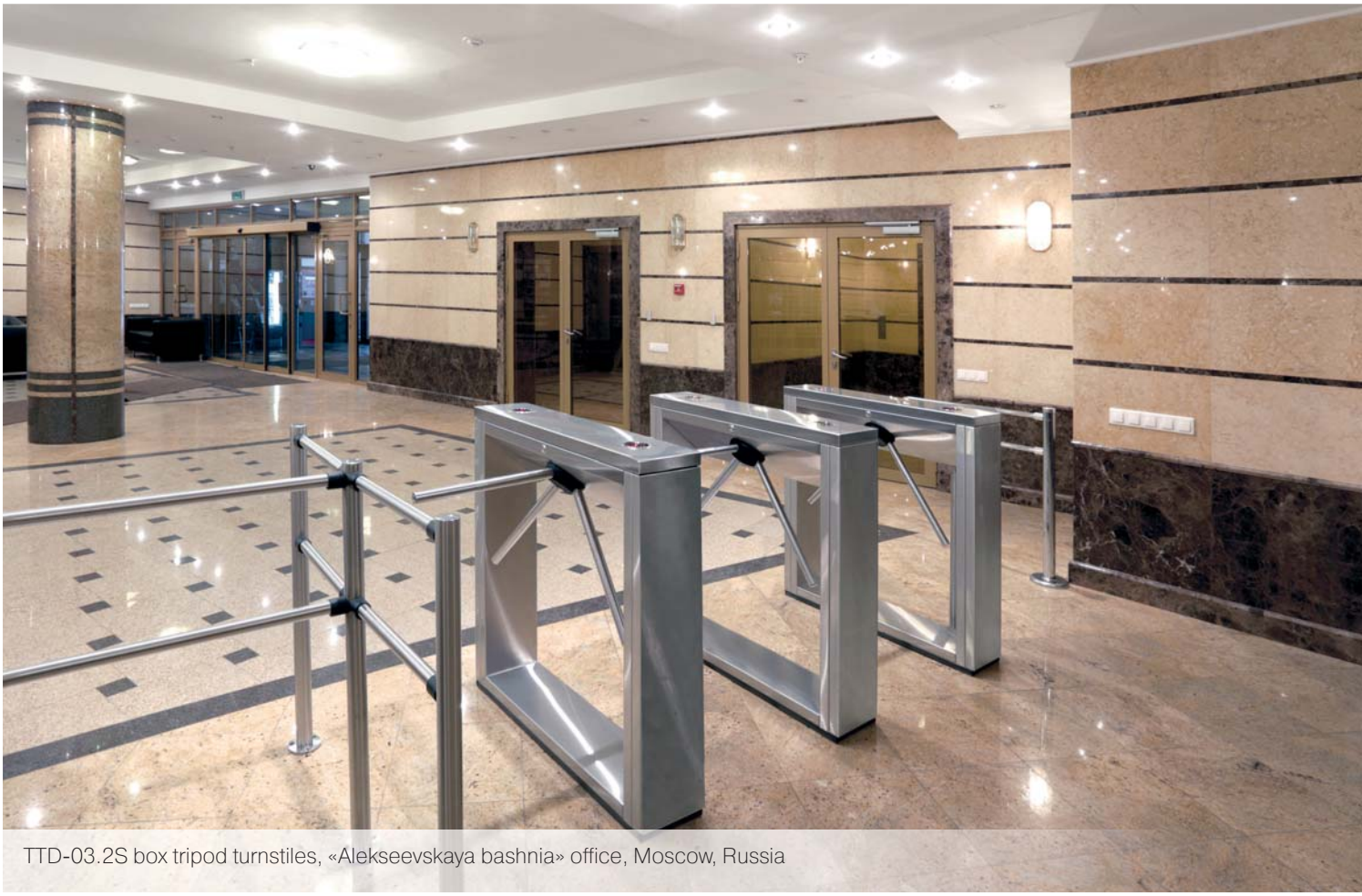
dark grey

Top cover - artificial stone:

dark blue

black

Barrier arms - stainless steel.



TTD-03.2S box tripod turnstiles, «Alekseevskaya bashnia» office, Moscow, Russia

TTD-03.2.G box tripods, business centre, Saudi Arabia.

TTD-03.2 BOX TRIPOD TURNSTILE

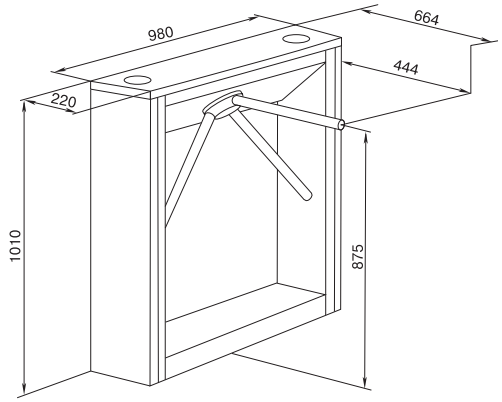
+40°
+1°

12 V DC
power supply

2 way control

30
persons/min

key override control



LED directional indicators

Mechanical anti-panic (optional)

Application

Secure and capable of managing fast throughput, the TTD-03.2 provides industrial sites with solid hardware for entrance control. Made entirely of stainless steel it will as well perfectly fit interior of banks, office buildings and financial institutions providing modern-looking solution together with secure control. Installed in one line, these turnstiles will make the passageway area without installation of extra guide barriers.

Delivery set

- turnstile with built-in electronics
- remote control panel
- standard/anti-panic barrier arms (the type is chosen by a Client at the time of order)

Materials and Finishes

Turnstile housing – stainless steel/powder coated steel.

stainless steel
Sandpaper powder coating with pearl mica effect:

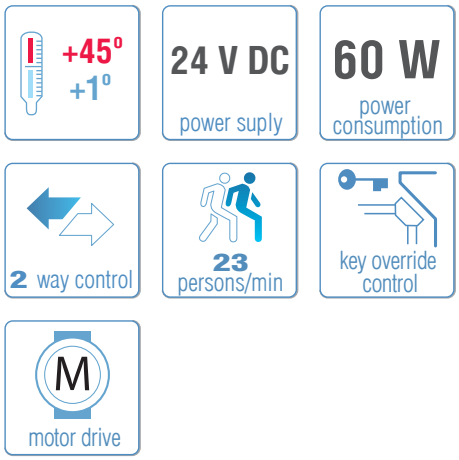
dark grey
Top cover - stainless steel.
Barrier arms - stainless steel.

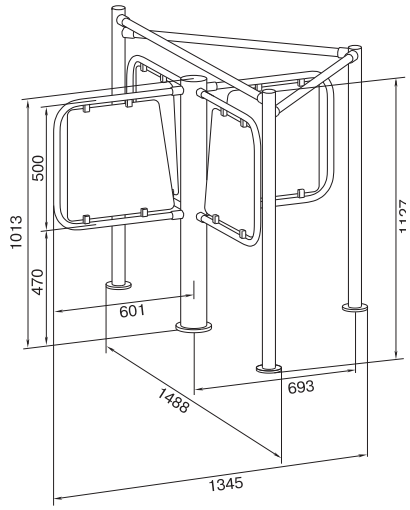
RTD-03S rotor turnstiles with WMD-05S swing gate and IC-03 card capture reader, «Leon» business centre, Saint Petersburg, Russia

RTD-03S rotor turnstiles, Belarusneft administrative office, Gomel, Belarus

RTD-03S WAIST-HIGH ROTOR TURNSTILE

Waist-high rotor turnstile with RB-03S stainless steel guide barrier set





Red/Green status lights

Application

The RTD-03S rotor turnstiles are designed for control of access at entrance points where security and comfort of passage are equally important. The turnstile features an electric drive which ensures smooth automatic reset after each passage. Made of polished stainless steel, supplied with matching stainless steel barrier guides with built-in status lights the turnstile will fit any modern interior design.

Delivery set

- turnstile housing
- guide barrier set
- control unit with power supply and battery
- remote control panel

Materials and Finishes

Rotor, posts, handrails, barrier wing frames – stainless steel.

stainless steel

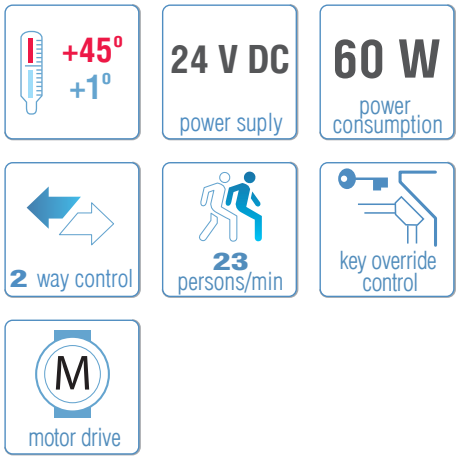
Filler panels - polycarbonate sheets.

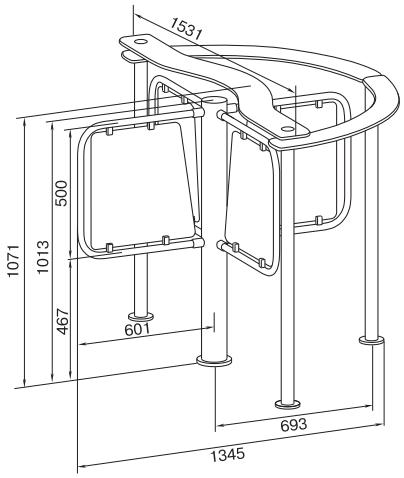
RTD-03S rotor turnstiles, BH railing sections and WMD-05S swing gate at the entrance of «TATRAVAGONKA a.s.» manufacturing plant, Slovakia

RTD-03.S rotor turnstiles installed at JS Technopark Orbita, Moscow, Russia

RTD-03S WAIST-HIGH ROTOR TURNSTILE

Waist-high rotor turnstile with RB-03TP stainless steel guide barrier set and wooden handrails





LED directional indicators

Application

The RTD-03S rotor turnstiles are designed for control of access at entrance points where security and comfort of passage are equally important. The turnstile features an electric drive which ensures smooth automatic reset after each passage. Made of polished stainless steel, supplied with matching stainless steel barrier guides and wooden handrails with built-in LED directional indicators the turnstile will fit any modern interior design.

Delivery set

- turnstile housing
- guide barrier set
- control unit with power supply and battery
- remote control panel

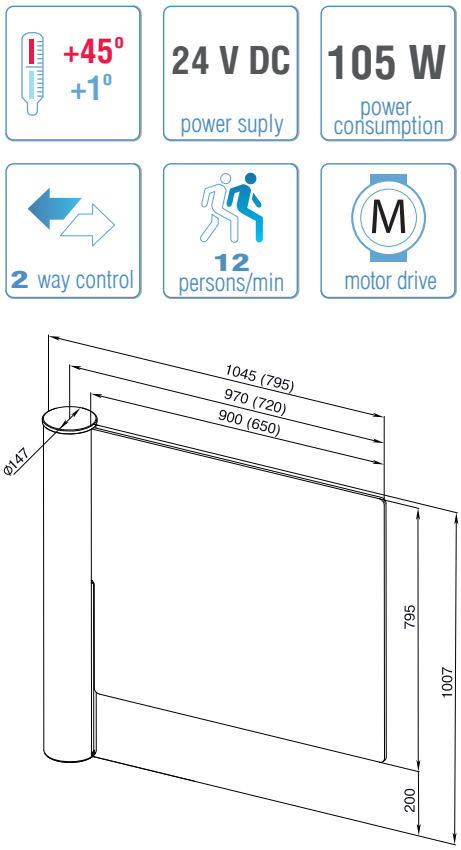
Materials and Finishes

Rotor, posts, barrier wing frames – stainless steel.

stainless steel

Filler panels - polycarbonate sheets.
Handrails - solid ashwood/beechwood, stainless steel.

WMD-06 MOTORIZED SWING GATE



Application

The WMD-06 motorized swing gate with glass panel for indoor use is an up-market model that offers an elegant solution for entrance points of banks, administrative buildings, business centres and other sites with the highest requirements for design and comfort.

The WMD-06 features a tempered glass swing panel available in two versions: a standard panel (650 mm) or an extended panel (900 mm) for convenient wheel-chair access. In emergency situations the gate with the extended swing panel can be used as an additional emergency exit.

Delivery set

- gate post with built-in electronics
- tempered glass swing panel 650/900 mm
- remote control panel

Design

Fail-safe operation provides gate unlocking in case of fire alarm or if the electricity is down.

The WMD-06 gates can be installed in pairs facing each other. In this case the 2 gates will be able to provide well-synchronized operation being controlled by one control signal.

The transparent glass panel is fitted with the matt tape along the top edge that helps to prevent people from bumping into the glass.

Materials and Finishes

Gate post – stainless steel

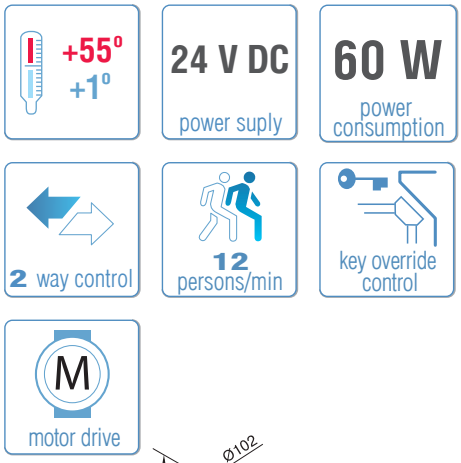
Swing panel – 10 mm tempered glass

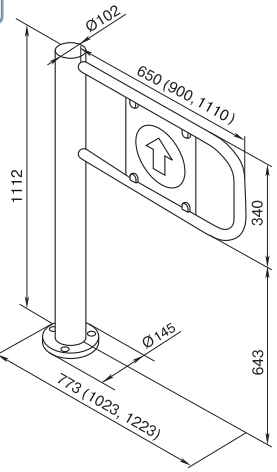
stainless steel

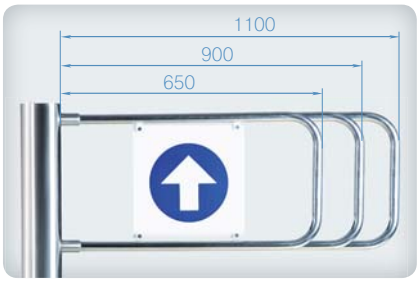
TTR-04.1 tripod turnstile with WMD-05S swing gate at BODYTECH fitness centre, Auckland, New Zealand

TTD-03.1 box tripod turnstiles with anti-panic arms and WMD-05 swing gates, Italy

WMD-05S MOTORIZED SWING GATE







Application

Motorized swing gates of WMD series have proven an ideal access control solution for convenient access of people in wheelchairs, mothers pushing prams or shoppers carrying bulky goods.

Delivery set

- swing gate post
- control unit with power supply and battery
- remote control panel
- swing panel 650/900/1100 mm (the length is chosen by a Client at the time of order)

Design

The WMD-05S swing gate features a drive with a high-accuracy location sensor (encoder) ensuring well-synchronized operation of 2 swing gates controlled by one control signal.

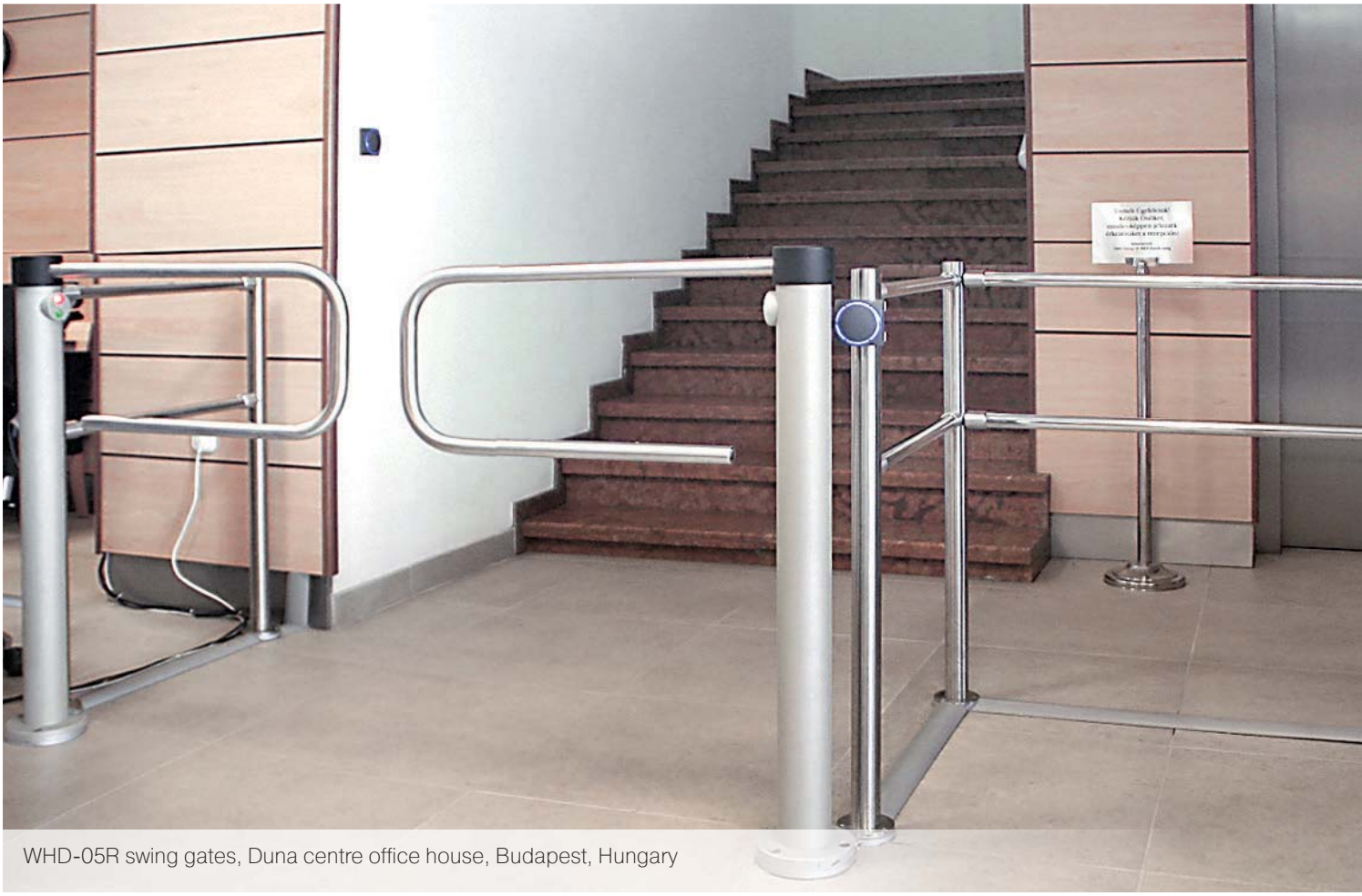
With an additional input for Fire Alarm the swing gate can be unlocked in any direction from an external control device by a fire alarm signal, for instance.

Materials and Finishes

Swing gate post/swing panel – stainless steel.

stainless steel

Filler panel (double-sided info sign) – reinforced plastic



WHD-05R swing gates, Duna centre office house, Budapest, Hungary

WHD-05R swing gates, Corfu Seaport, Greece

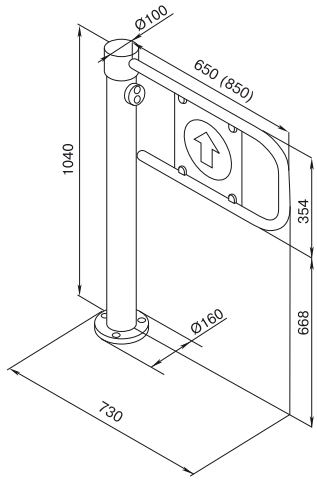
WHD-05 SWING GATE

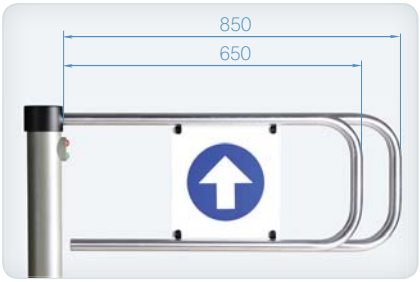
25 persons/min

+45° +1°

2 way control

12 V DC power supply





Application

An economical access control solution which is often used to control one-way pedestrian traffic. The WHD-05 swing gate can be supplied with two types of swing panel: 650 mm or 850 mm. The extended 850 mm swing panel ensures a comfortable access of people in wheelchairs, mothers pushing prams or shoppers carrying bulky goods.

Delivery set

- gate post
- control unit with power supply and buttery
- remote control panel
- swing panel 650/850 mm

Design

- Fail-safe operation – free swing upon power loss.

When the gate is unlocked by the signal from the remote control panel or access control system, the entrant should push the swing panel in the direction of authorized passage. The gate will smoothly return to home position after the passage is complete. If required, one of the passage directions can be mechanically locked.

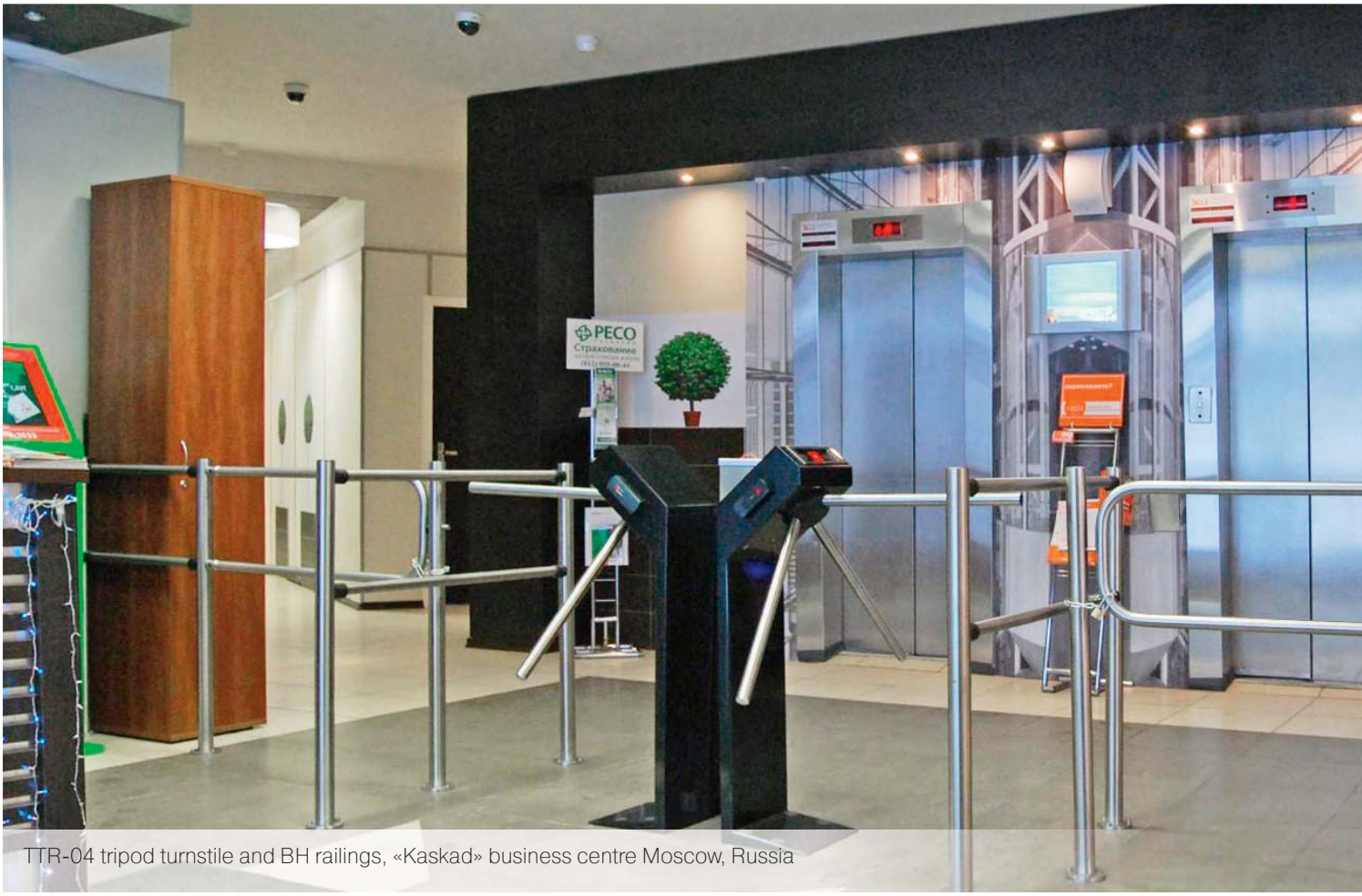
Materials and Finishes

Gate post – powder coated steel
Swing panel – brushed stainless steel
Filler panel – double-sided info sign, reinforced plastic
Sandpaper powder coating with pearl mica effect:

light beige

dark grey

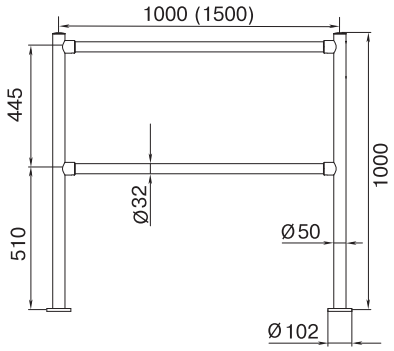
Red/green status lights

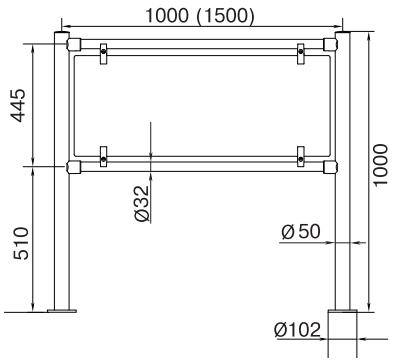


TTR-04 tripod turnstile and BH railings, «Kaskad» business centre Moscow, Russia

TTD-03.1 box tripod turnstiles and BH railings, «Stoliza» business centre, Voronezh, Russia

BH-02 WAIST-HIGH RAILING SECTIONS





Adjustable coupling fittings

Application

Styled in one design the BH-02 series enables you to enclose open space that needs to be secured completing your passageway. The BH-02 series offers 4 types of posts, several types of coupling fittings as well as railings up to 1400 mm long allowing you to form railing system of any configuration.

Design

The BH-02 railings match and easily integrate with various models of PERCo turnstiles and swing gates.

End post | Centre post | Corner post | T-post

Materials and Finishes

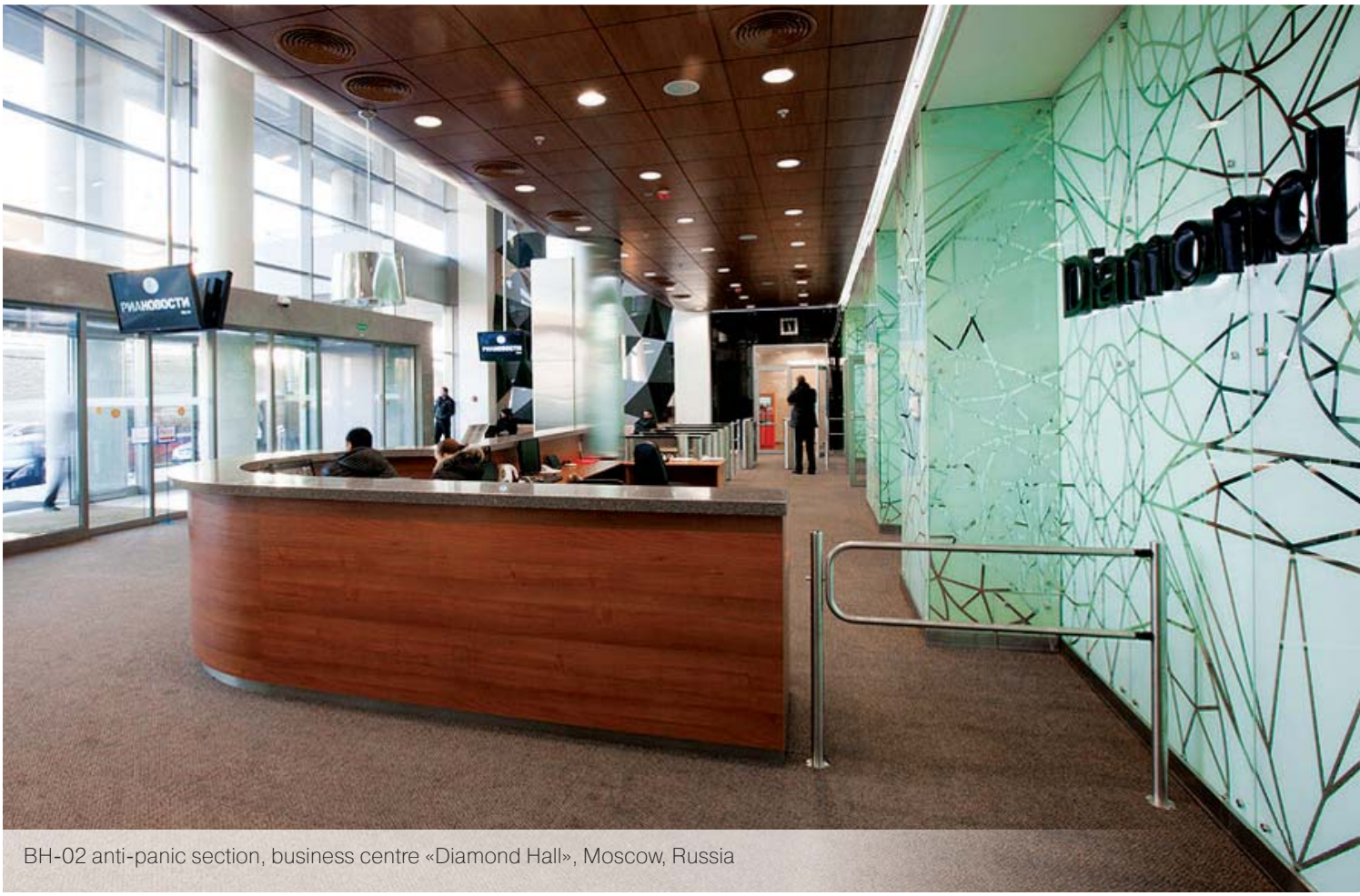
End posts – stainless steel pipe, D-50 mm.

Railing – stainless steel pipe, D-32 mm.

Stainless steel

Coupling fittings – plastic, black.

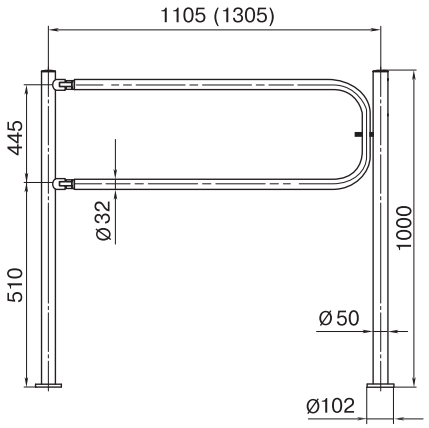
Filler panels – polycarbonate.

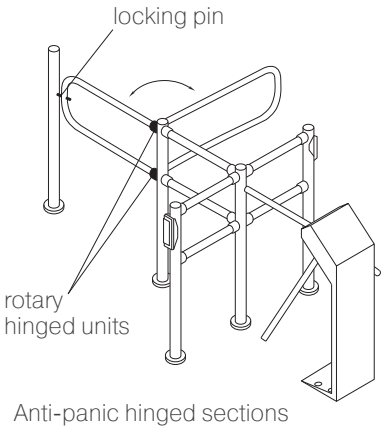


BH-02 anti-panic section, business centre «Diamond Hall», Moscow, Russia

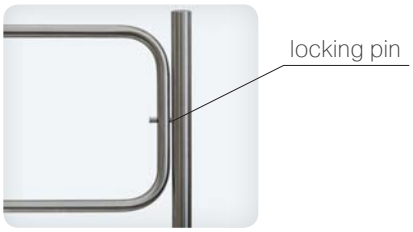
BH railings with BH-02 anti-panic section and TTR-04.1R tripod turnstile, aquapark, Grodno, Belarus

BH-02 WAIST-HIGH RAILING SECTIONS





Anti-panic hinged sections



Application

The BH-02 hinged section of rotary type is designed to provide an unobstructed and fast escape route in emergency cases. Thanks to its design and a passage width of up to 1200 mm the hinged section is suitable for wheelchair access and deliveries of large or bulky items.

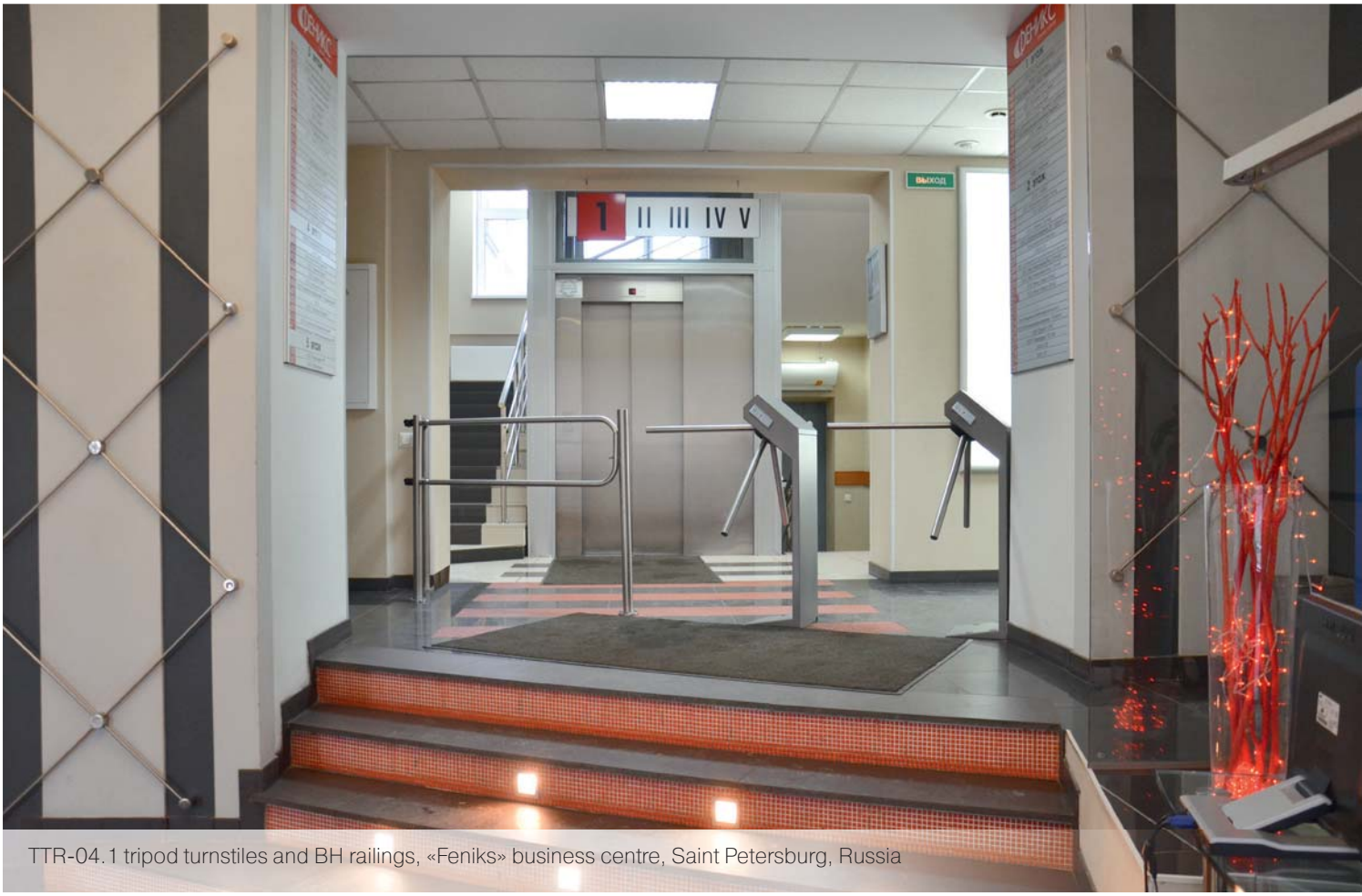
Design

At normal operation the BH-02 hinged section is used as a railing section to complete a passage area. When needed, the section can be opened in any direction without use of special tools or keys, by pulling the locking pin.

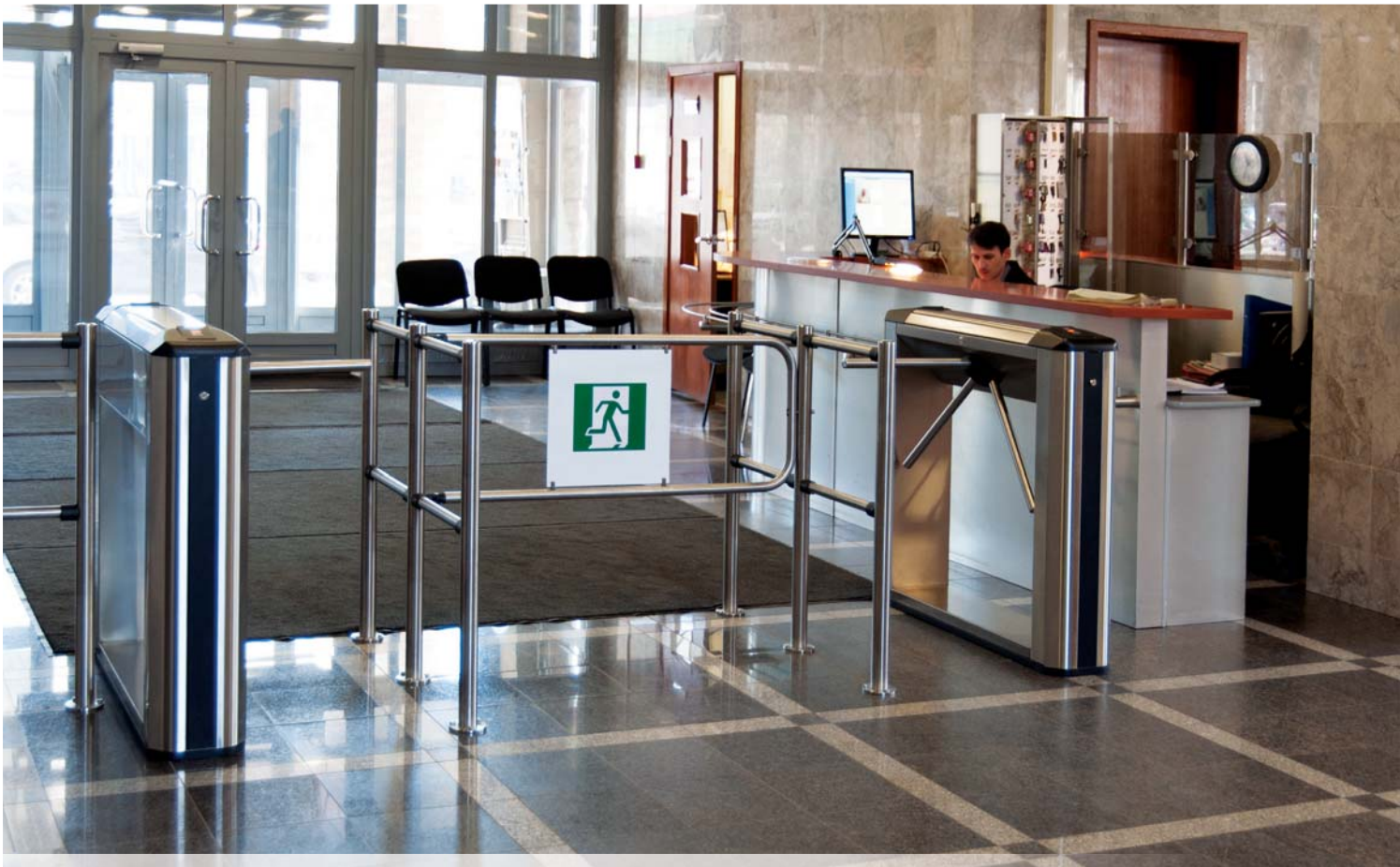
Materials and Finishes

End posts – stainless steel pipe, D-50 mm.
Swing panel – stainless steel pipe, D-32 mm.

Stainless steel



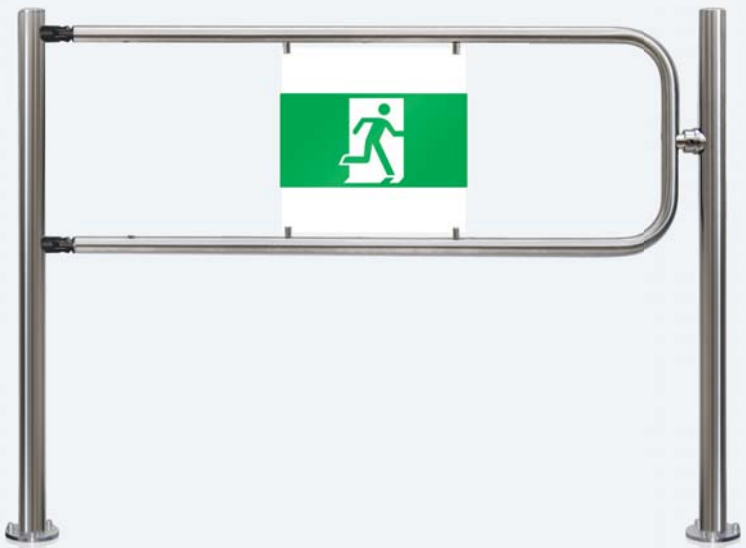
TTR-04.1 tripod turnstiles and BH railings, «Feniks» business centre, Saint Petersburg, Russia



KT-05 IP-Stiles, BH-02 anti-panic section, «GAP» business center, Saint Petersburg, Russia

BH-02 WAIST-HIGH RAILING SECTIONS

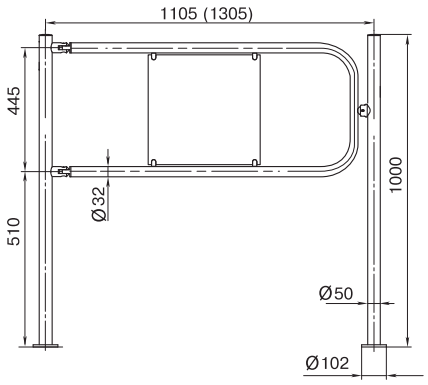
WITH AUTOMATIC ANTI-PANIC

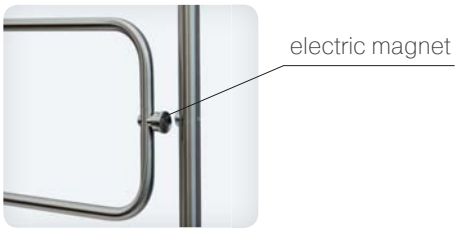


+40° -10°

12 V DC power supply

2 way control





Fail-safe operation

Application

Designed to ensure free passage in an emergency case the hinged section BH-02 automatically opens:

- at a power loss
- by signal from an ACS or emergency button
- manually, if force applied to its swing panel exceeds 40 kg.

Apart from being used as an emergency exit, the BH-02 hinged section with its width of 1200 mm is a perfect solution to arrange passage for disabled people.

Design

BH-02 can be fitted with a BH-02 series of railings to arrange railing systems of various configurations. Made in the same style they will perfectly fit and will give your entrance way a complete look.

Materials and Finishes

End posts – stainless steel pipe, D-50 mm.
Swing panel – stainless steel pipe, D-32 mm.

Stainless steel

RTD-15.1 full height rotor turnstiles installed at Jebel Ali port, Dubai, UAE

RTD-15 full height rotor turnstiles, Magna Auto plant, Saint Petersburg, Russia

RTD-15 FULL HEIGHT ROTOR TURNSTILES

+55°
-40°

22-30 V DC
power suply

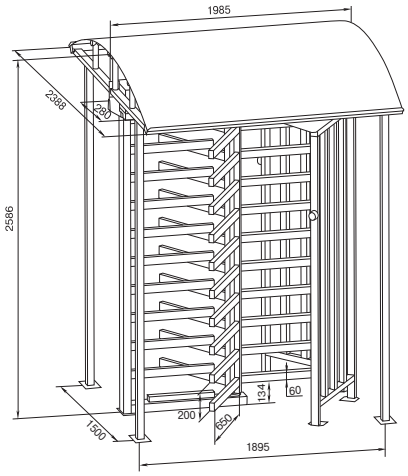
105 W
power consumption

2 way control

20
persons/min

key override control

M
motor drive



LED directional indicator

Walkway downlights

Application

The RTD-15 series rotor turnstiles are designed for complete and secure closure of the passageway and used for control of access at locations with high security requirements.

Delivery set

- turnstile with built-in electronics
- guide barrier set
- remote control panel

Options

- RTC-15 protective canopy for greater security and protection of the turnstile elements
- WHD-15 full height security gate
- MB-15 full height railings
- Foundation frame with the openings and holes to ease installation of the full height turnstile

Models

- RTD-15.1 motorized
- RTD-15.2 electromechanical

Materials and Finishes

Corrosion protected powder coated aluminium frame. Sandpaper powder coating with pearl mica effect:

light beige

RTD-15.2 full height rotor turnstile in the Port of Trieste, Italy

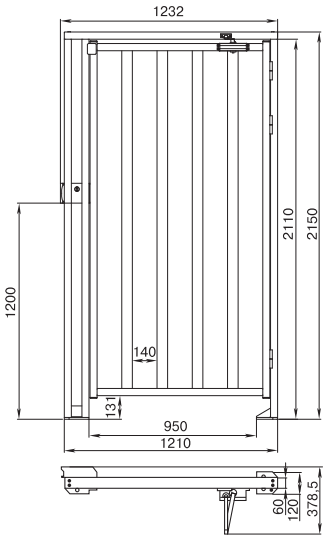
RTD-15 full height turnstiles and modified RTC-15 canopy at the entrance to ethnographic museum «Ataman», Kuban, Krasnodar region, Russia

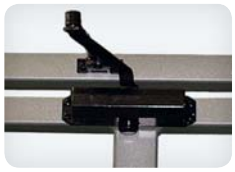
WHD-15 FULL HEIGHT SECURITY GATE

+55°
-40°

12 V DC
power supply

12
persons/min





Door closer

Electric lock

Application

The WHD-15 security gate is designed for secure closure of the passageway and used for control of access at locations with high security requirements. The gate enables wheelchair access and movement of bulky items.

The gate can be used either as a stand-alone unit with an electric lock or as part of access control system.

Delivery set

- assembled gate
- electric rim lock
- door closer with fasteners

Options

- for indoor and outdoor application
- single-direction swing gate

Materials and Finishes

Corrosion protected powder coated aluminium frame. Sandpaper powder coating with pearl mica effect:

light beige

RTD-15 full height rotor turnstile with RTC-15 canopy at the main entrance of Sberbank, Tyumen, Russia

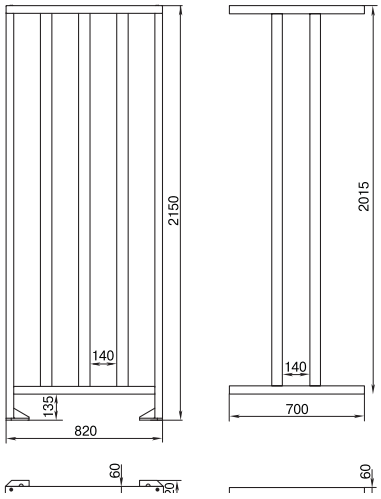
RTD-15.2 full height rotors with RTC-15R canopies at the ARNEG plant of refrigeration systems, Padua, Italy

WHD-15 FULL HEIGHT SECURITY GATE

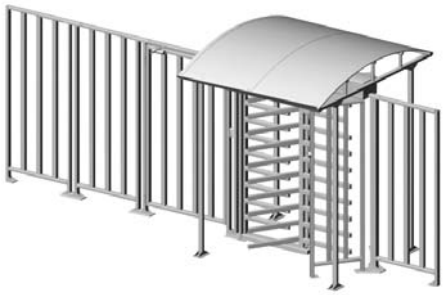
+40°
-30°

12 V DC
power supply

12
persons/min



MB-15R MB-15D



Application

The MB-15 full height railings are meant to complete passage ways equipped with full height turnstiles of RTD-15 series. Used in combination with RTD-15 full height turnstiles/full height security gates, they will ensure a completely enclosed secure passage area.

With high corrosion protection of the aluminum alloy frame the railings will withstand many years of harsh environmental exposure.

Options

The MB-15 full height railings can be used together with extension sections and middle post sections to fill the smaller gaps between the full height elements to make the passage even more secure. Purposely designed brackets and mounting plates will properly connect all the elements (full height security gates, turnstiles and railings) in one robust secure construction.

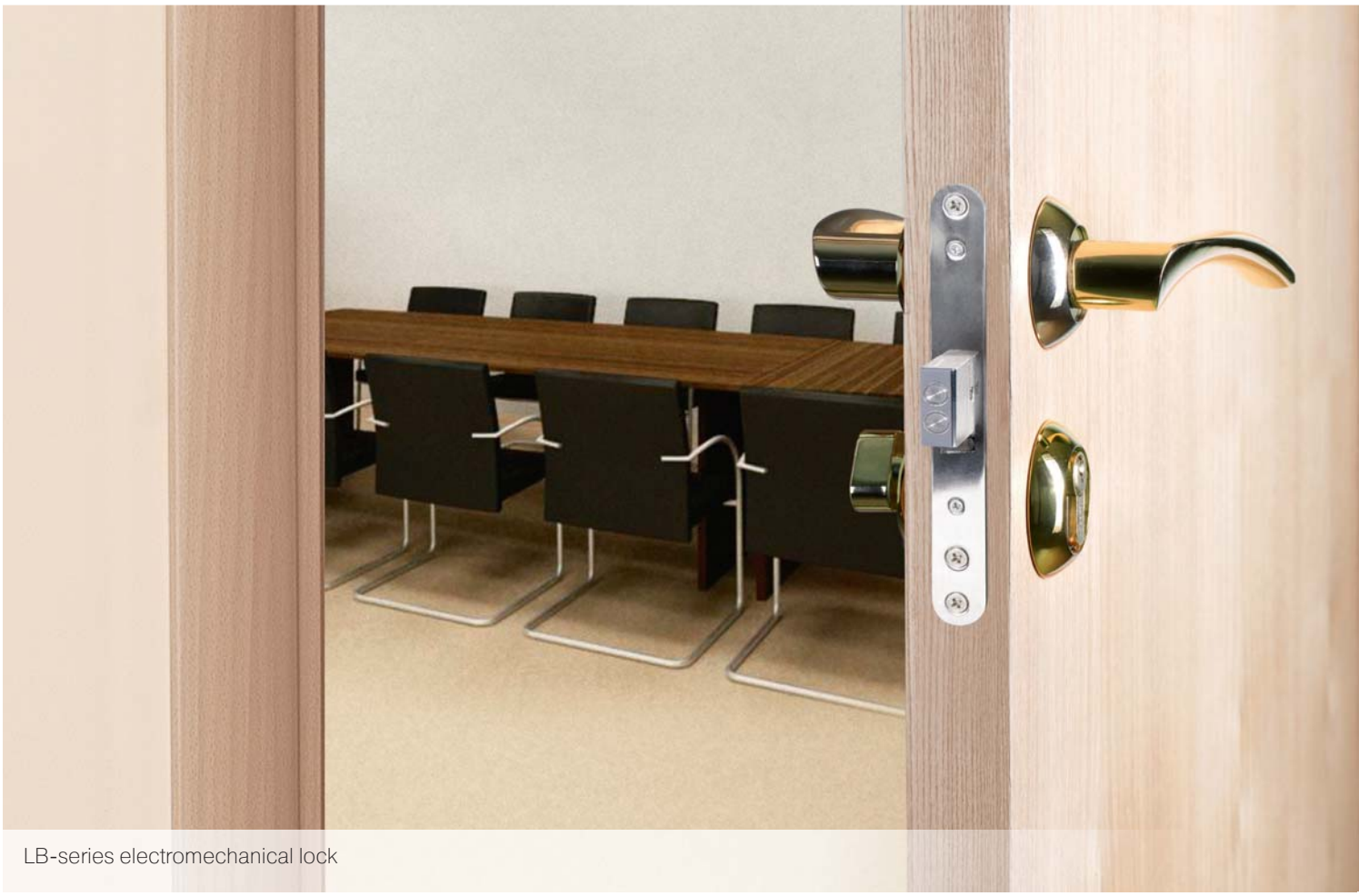
Materials and Finishes

Frame – powder coated aluminum.

Sandpaper powder coating with pearl mica effect:

light beige

LC-series electromechanical lock



LB-series electromechanical lock

PERCo mortise locks are designed to operate as a part of access control system.

PERCo company manufactures two series of locks: LB-series and LC-series. Both series are used to lock the doors of small and medium thickness from 38mm to 50mm.

LB-series is the new unparalleled development of PERCo company. Voltage is supplied through contacts in the locking bolt of LB-series lock. Power cable and control cable are connected through the strike plate in the door frame, not through the door leaf that makes installation easier and provides aesthetically pleasing exterior of the door.

Control cable of LC-series locks is connected in a standard way, through the door leaf. LC-series locks have two operating modes – day-time mode (with a short bolt-throw) and night-time mode (with an extended bolt-throw).

Each series contains 4 models that differ with control mode (normally closed/normally open) and centre-to-centre spacing.

The table shows distinctive features of PERCo locks.

How to choose PERCo lock?

Operating principle.

Model	Power connection	Control mode	Centre-to-centre spacing	Type of locking bolt
LB72.1	with terminal block	Opens when energized (NC)	72 mm	Flat locking bolt, with blocker roll
LB72.2	with terminal block	Opens when de-energized (NO)	72 mm	Flat locking bolt, with blocker roll
LB85.1	with terminal block	Opens when energized (NC)	85 mm	Flat locking bolt, with blocker roll
LB85.2	with terminal block	Opens when de-energized (NO)	85 mm	Flat locking bolt, with blocker roll
LC72.3	without terminal block	Opens when energized (NC)	72 mm	Skewed locking bolt, with day/night switch
LC72.4	without terminal block	Opens when de-energized (NO)	72 mm	Skewed locking bolt, with day/night switch
LC85.3	without terminal block	Opens when energized (NC)	85 mm	Skewed locking bolt, with day/night switch
LC85.4	without terminal block	Opens when de-energized (NO)	85 mm	Skewed locking bolt, with day/night switch

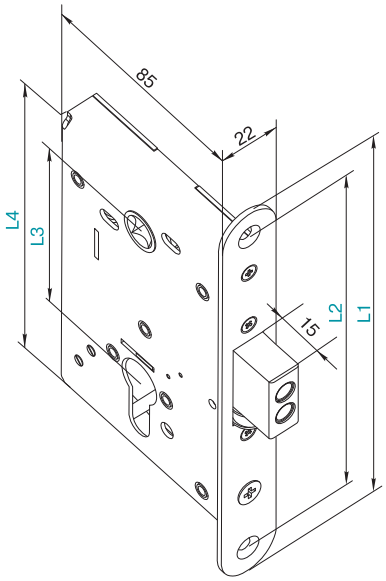
Place of installation	Required type of lock	Corresponding lock models
Premises with standard safety requirements – offices, accountant departments, warehouses, staff rooms.	Normally-closed electromechanical lock with potential operating mode – opens when energized. When the power is off, the lock can be unblocked mechanically with a key or thumbscrew (from inside).	LB72.1 LB85.1 LC72.3 LC85.3
Premises with high public safety requirements – emergency, staircase and elevator exits, childcare, educational and healthcare facilities.	Normally-open electromechanical lock with potential operating mode – opens when de-energized. The lock opens in any situation (ACS controller failure, damaged cable, power loss).	LB72.2 LB85.2 LC72.4 LC85.4

All models of PERCo electromechanical locks work in potential operating mode – control signal from ACS shall be sent and kept active until the door is open. Control signal is not required for door closing. The lock can be also unblocked by a lock cylinder (by key from outside, by key or by thumbscrew from inside).

LB-SERIES ELECTROMECHANICAL LOCKS

+40°
+1°

12 V DC
power supply



LEGEND	LB72	LB85
L1	172 mm	187 mm
L2	150 mm	165 mm
L3	72 mm	85 mm
L4	127 mm	140 mm

Application

LB-series lock is the new unique development of PERCo company. Voltage is supplied through contacts in the locking bolt of LB-series lock. PERCo electromechanical mortise locks are designed to lock the doors of small and medium thickness from 38 mm to 50 mm. Each series contains 4 models that differ in control mode (normally closed/normally open) and centre-to-centre spacing.

Delivery set

- electromechanical mortise lock
- strike plate
- screw 4x30
- installation template.

Materials and Finishes

Stainless steel

MODEL	POWER CONNECTION	Control mode	Centre to-centre spacing	Type of locking bolt
LB72.1	with terminal block	Opens when energized (NC)	72 mm	Flat locking bolt, with blocker roll
LB72.2	with terminal block	Opens when de-energized (NO)	72 mm	Flat locking bolt, with blocker roll
LB85.1	with terminal block	Opens when energized (NC)	85 mm	Flat locking bolt, with blocker roll
LB85.2	with terminal block	Opens when de-energized (NO)	85 mm	Flat locking bolt, with blocker roll

Design

Key features of the LB-series locks:

- **voltage is supplied through contacts in the locking bolt.** Power cable and control cable are connected through the strike plate in the door frame, not through the door leaf that makes installation easier and provides aesthetically pleasing exterior of the door while preserving the integrity of the door leaf.
- door post is protected from damage. The door can be closed easily without any efforts required
- mechanical unlocking with a key
- low power consumption
- can be used with right-hand and left-hand doors
- with a standard centre-to-centre hole spacing between lever and the cylinder
- (72 mm, 85 mm) the LB locks can be put in place of mechanical locks without
- replacing or reconstructing the door the locks are compatible with standard levers, handles, lock cylinders and escutcheon plates
- all elements of the lock case, including lock bolt have corrosion-resistance coating
- the locks are resistant to self-opening, for instance as the result of a hard kick on the door
- LB locks do not require any service during life-time.

All models of PERCo electromechanical locks work in potential operating mode – control signal from ACS shall be sent and kept active until the door is open. Control signal is not required for door closing. The lock can be also unblocked by a lock cylinder (by key from outside, by key or by thumbscrew from inside).

When the door is open the locking bolt moves inside the housing, the blocker roll pulls out automatically. When the door is closed the blocker roll starts sliding on the strike plate and moves inside the lock housing that causes the locking bolt to pull out and the lock to close automatically. Bolt throw is 15 mm long.

Flat locking bolt 15 cm

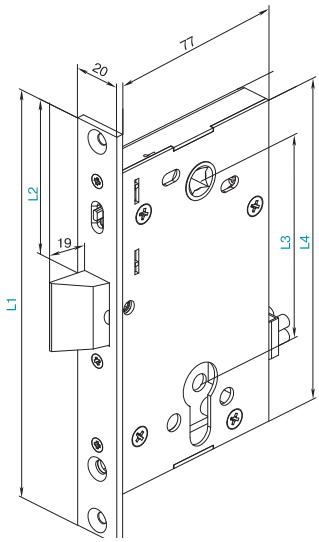
Blocker roll

Contact groups in locking bolt and under strike plate

LC-SERIES ELECTROMECHANICAL LOCK

+40°
+1°

12 V DC
power supply



LEGEND	LC72	LC85
L1	150 mm	170 mm
L2	58,8 mm	62,3 mm
L3	72 mm	85 mm
L4	121 mm	134 mm

Application

PERCo locks of LC-series are electromechanical mortise door locks designed for use in an access control system (ACS) to control light and medium office doors. The locks are used in wooden and steel doors 38-77 mm thick (installation in other types of doors is related to capability to fit mortise pocket).

Delivery set

- electromechanical mortise lock
- strike plate
- screw 4x30
- installation template.

Materials and Finishes

Stainless steel

Design

Key features of the LC-series locks:

- mechanical unlocking with a key
- operates in a day-time and a night-time modes (further bolt throw)
- low power consumption
- can be used with right-hand and left-hand doors
- with a standard centre-to-centre hole spacing between lever and the cylinder (72 mm, 85 mm) the LC locks can be put in place of mechanical locks without replacing or reconstructing the door
- the locks are compatible with standard levers, handles, lock cylinders and escutcheon plates
- all elements of the lock case, including lock bolt have corrosion-resistance coating
- the locks are resistant to self-opening, for instance as the result of a hard kick on the door
- the LC locks do not require any service during life-time.

In day-time locking mode the bolt throw is 11 mm, and it is 19 mm in night-time locking mode. In order to change day-time mode to night-time mode, while the door is open move up the day/night mode switch on the forend as far as it goes.

Opening of the lock in night-time mode is similar to the one in day-time mode. The lock will automatically return to day-time mode after that.

MODEL	CONTROL MODE	Centre-to-centre-spacing
LC72.3	Opens when energized (NC)	72 mm
LC72.4	Opens when de-energized (NO)	72 mm
LC85.3	Opens when energized (NC)	85 mm
LC85.4	Opens when de-energized (NO)	85 mm

The locks are operated in potential control mode. The fail-secure (NC) lock opens at energizing, while the fail-safe (NO) lock opens at de-energizing.

For regular operation an ACS controller, controlling the lock, should have possibility of connecting reed switch to it.

To open the lock an ACS controller should energize/de-energize the lock and keep it energized/de-energized till the moment the door opens (this is possible either by signal from a reed switch or by signal of certain duration).

The lock opens by turning the lever after the locking device is released. Before the locking device is released the lever is blocked from turning.

You just need to shut the door to lock it.

Day-time locking

Night-time locking

Day/night mode switch

IRP-01 reader post with LCD display

IR10 long range card reader for vehicle entry checkpoints

WIEGAND INTERFACE READERS AND CARD CAPTURE READERS

Readers with Wiegand interface connection with a controller can be used as a part of systems of most manufacturers.

Card capture readers with Wiegand interface can be used in access control systems that allow division of pedestrians on Employee/ Visitor principle.

Description of readers and card capture readers with RS-485 interface can be found in «PERCo-Web access control system» on pages 21-27.

IRP-01 READER POST WITH LCD DISPLAY

1025 x 107 x 107 mm

Application

The IRP-01 reader post is an elegant solution designed to read proximity cards and to display the information if the access is denied or granted.

The IRP-01 can be applied as a part of PERCo-Web system or can be integrated in the systems of other manufacturers. The IRP-01 operates through two types of interfaces – RS-485 or Wiegand, the output format must be selected and set at the time of installation.

Design

The radio-transparent top cover is made of glass. Under the top cover there are a reader control board and an LCD display with animated indication of operational modes.

Control | Open | Closed | Verification process

Card reading distance for EM-Marin cards – not less than 7 cm, for HID cards – not less than 6 cm. The card reading is confirmed by an audible signal.

Materials and Finishes

Card reader post – stainless steel
Top cover – tempered glass

IR10 LONG RANGE (100CM) CARD READER FOR VEHICLE ENTRY CHECKPOINTS

RS-485 | 12 V DC power supply | +40° -40° | EMM/HID | Wiegand

Application

The IR10 long range card reader for outdoor use is designed for reading EMM and HID proximity cards and the max. card reading distance is 100 cm. Operates through RS-485 or via Wiegand interface.

Materials and Finishes

Reader body - ABS plastic

RP15.2 PROXIMITY CARD READER

12 V DC power supply | Wiegand | +40° -40° | EMM/HID

Application

RP15.2 proximity card reader is designed for reading and interpretation of the code that is contained in the access card and for transmitting of this code to the ACS controller. Operates through Wiegand interface.

Design

This table shows the color of the housing in accordance with reader model.

READER MODEL	COLOR
RP15.2B	Beige
RP15.2D	Dark grey

IC-03 CARD CAPTURE READER

194 x 194 x 1017 mm

Wiegand

12 V DC
power supply

+45°
+1°

EMM/HID

Capturing guest card

Presenting personnel card

Application

The IC-03 card capture reader is designed to operate within an ACS as a device for reading, capturing and keeping proximity cards issued to visitors and meant for return at exit.

Design

The IC-03 card capture reader with a Wiegand interface connection with a controller is integrated into access control systems capable of recognizing Personnel/Guest cards. The IC-03 card capture reader is used to capture and store guest cards, when visitors are required to return the card upon leaving the facility.
The card capture reader operates with HID and EM-Marin cards.
The IC-03 operates together with an ACS controller and an operating device, such as a turnstile or a swing gate.
One of advantages of the PERCo card capture reader is ease and handiness in installation, use and service.
When leaving a facility a visitor drops the guest card down the card capture reader slot. After the card falls down to the card container an operating device unlocks allowing the visitor to pass.
Staff with permanent personnel cards can use the card capture reader as a regular reader. To pass just present the card at the card capture reader, the card will not fall down the card container.

Materials and Finishes

Housing – stainless steel
Card reading distance for EM-Marin cards – 8cm,
for HID cards – 6 cm
The card container capacity – 350 cards

PERCo manufacturing plant

About PERCo

PERCo is the leading Russian manufacturer of security systems and equipment. We design, manufacture and successfully market turnstiles, gates, railings, electromechanical locks and access control systems that meet international standards of the security industry.

PERCo in brief

- Over 25 years of expertise in the security industry
- Installations in 77 countries worldwide
- R&D centre and manufacturing plant
- Over 15,000 sq. m of production space
- More than 500 skilled employees
- Complience with ISO 9001:2008 international standard
- Serially produced products ready to be shipped from stock
- Warehouses in Russia and duty-free warehouse in the EU

Sheet metal working shop

Powder coating line

A finished-goods warehouse

Shipping

Over 25 years worldwide

Armenia
Australia
Austria
Azerbaijan
Bahrain
Bangladesh
Belarus
Belgium
Benin
Bosnia and Herzegovina
Bulgaria
Cameroon
China
Columbia
Croatia
Czech Republic
Estonia
Finland
France
Georgia
Germany
Greece
Hungary
Iceland
India
Iran
Ireland
Israel
Italy
Japan
Jordan
Kazakhstan
Kenya
Kyrgyzstan
Kuwait
Latvia
Lebanon
Libya
Lithuania
Macedonia
Malaysia
Malta
Mexico
Moldova
Mongolia
Morocco
Netherlands
New Zealand
Nigeria
Norway
Pakistan
Poland
Romania
Portugal
Russia
Saudi Arabia
Serbia
Singapore
Slovakia
Slovenia
South Korea
Spain
Sri Lanka
Sweden
Switzerland
Taiwan
Tajikistan
Thailand
Turkmenistan
Tunisia
UAE
Uganda
UK
Ukraine
Uzbekistan
Vietnam
Yemen

www.perco.com
export@perco.com
www.youtube.com/percoweb

www.perco.com
export@perco.com
www.youtube.com/percoweb