

BAR ST

BASIC CHARACTERISTIC



Turnstile **BAR-ST** is a universal type of tripod turnstile that can be used in a broad-spectrum of applications and environments. Modern design, reliable and effective running in combination with high-quality materials are the main features that make **BAR-ST** turnstile necessary part of entrance control systems and persons identification. The variability of applied materials and resistant surface treatment make possible to integrate the turnstile **BAR-ST** to any environments including exteriors. Sophisticated control electronics enables the easy setting of its own turnstile operating mode and at the same time makes possible the communication with different types of identification systems including manual control. Turnstile **BAR-ST** can be equipped with ANTI-PANIC function at the customer's request.

Turnstile **BAR-ST** is supplied with three types of drive unit:

Motor drive unit MT (standard)

This motorized version is characteristic by its high comfort, reliable and service-free running:

- Effective blocking system in combination with motor-driven unit
- Automatically adapts the turning speed depending on impulse energy whereby the passing person activates the turnstile
- Silent and fluent running
- The possibility to set smooth final phase of rotation.

Motor drive unit is supplied in two variants:

- 1) **FAIL-LOCK: turnstile is blocked during the power failure**
- 2) **FAIL-SAFE: the turnstile is unblocked for the free passing during the power failure**

Electromechanical unit TE2, TE-NB

The turnstile is controlled by electromechanical unit with the following functions:

- Active blocking system based on electromagnets enabling the passage to just one person
- Self-centering position mechanism to ensure the complete turnstile turning to the basic position
- Hydraulic shock absorber for the fluent and smooth running
- Blocking system prevents the turnstile reverse during passing
- Possible unit configuration during the power failure: 1) permanently blocked 2) unblocked for free passing

Mechanical unit

This unit has the same characteristics like electromechanical unit with the difference that turnstile running is not controlled by any device. This type of turnstile is applied to regulate and control the number of passing people generally in one-direction.

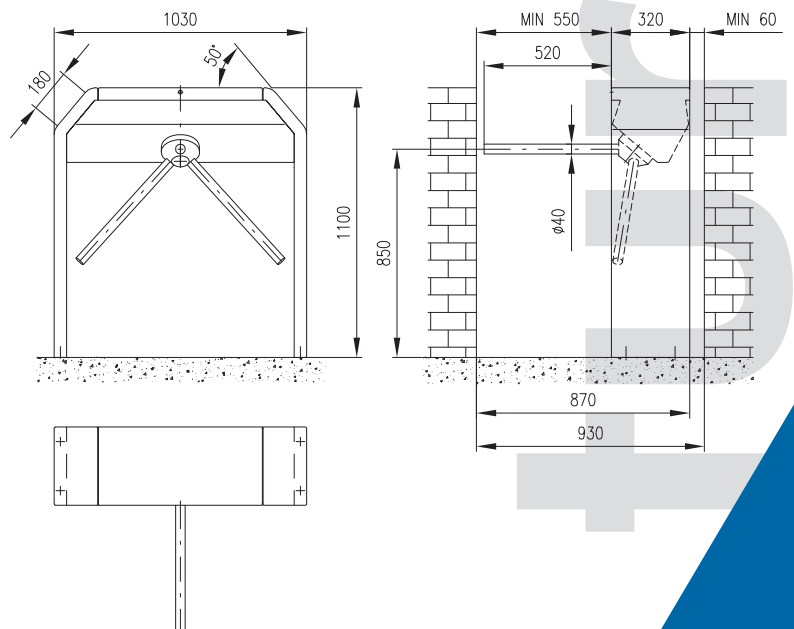
Turnstile materials and surface treatment:

Zinc-galvanized steel sheet, thickness 2 - 2.5mm, surface-finished by powder coating (standard: outer cover - Antique silver + transparent paint, the case and inside covers - black RAL 9905 GS) or stainless steel sheet (standard - polished).

Turnstile Head: are made of stainless steel, but in case of panic design the head's cover is from zinc-galvanized steel sheet, thickness 1.5mm surface-finished by powder coating (standard - Antique silver + transparent paint) or from stainless steel sheet (standard - polished).

Bars: stainless steel tube \varnothing 40mm (standard - polished design)

Other mechanical parts of turnstile are finished by galvanic zincing or blackening.



INTERFACE:

Turnstiles are controlled by microprocessor control electronics that communicates with superior control system by the help of the following input and output TTL signals.

- For each passage direction one activating input
- Output for signalling situation the turnstile in operation (BUSY)
- Two outputs signalling the actual passage through turnstile in existing direction (especially used for ANTIPASSBACK function)

Input for permanent activation of free passing in existing direction and enables the time setting to realize the passage through turnstile at 6 or 10s (Time-out).

Control electronics is equipped with switch-off acoustic position signals the turnstile is running (BUSY). Control unit is protected against the short-circuit, overloading or mismatch of polarity.

Turnstile operation during power cut

FAIL-SAFE unit: turnstile will be automatically unblocked during power cut and it freely turns in both directions through the transfer mechanism.

FAIL-LOCK unit: In using the backup device it is possible to ensure the turnstile standard functions during the time of 6 hours without possibility of automatic unblocking and free turning.

Operating modes

By external signal from identification system or remote control panel it is possible to turn round the turnstile 120° and by that way enable the passing to one person. For each way of direction it is possible to define different operating modes:

1. **free passage**
2. **controlled passage**
3. **permanently blocked**

This setting can be set-up for any direction eventually for both directions at the same time.

BASIC TECHNICAL PARAMETERS

Scheme of drive unit electric parameters

Type of drive unit	Rated supply voltage	Power supply at the basic turnstile mode		
		Standby	BUSY	Transit
Motorized FAIL-LOCK	12VDC	0,8W	10W	20 - 30W
Motorized FAIL-SAFE	12VDC	1W	1W	15 - 20W
Electromechanical without power blocked	24VAC/DC	2,5W	8W	8W
Electromechanical without power released	24VAC/DC	12W	8W	8W

- standard range of working temperatures +10°...+50°C
- range of working temperature with heating module: -25°... +50°C
- range of storage temperatures: 0°.... +50°C
- maximum relative humidity 80% (non-aggressive environment)
- MCBF: 3.000.000 cycles (number of cycles before error)

The number of passages, depending on type of control electronics, operating mode and the way of identification of passing people, is between 15 to 30 persons per minute.

Increase of power supply on motor drive unit with automatic heating is 24W. The power supply can be also increased by using the accessories.



ACCESSORIES

Railings:

For the right function it is suitable to add the turnstile BAR with guiding railings with minimal length 850 mm or install it to some suited object (for example: reception desk).

TrafficLight information panel:

- Information about the turnstile trafficability in set direction
- Information about transit permission based on evaluation of identification system

Touch control panel

- Remote manual turnstile control
- Remote activation of ANTI-PANIC function

ANTI-PANIC device:

By customer's request, the turnstile **BAR-ST** can be equipped with the **BAR-ST** function that ensures automatic folding of the horizontal turnstile arm in the event of power failure or emergency. The result is a freeway space needed for person's evacuation that agree with the safety regulations. The automatic folding of turnstile arm is activated an impulse from control system (e.g. fire alarm system), external button or during the power failure (it needs the connection of back-up accumulator and the unit monitoring the power supply situation).

Back-up accumulator:

During the power failure the accumulator ensures the turnstile working at least for a period of 6 hours of continuous operation.

Counter:

Turnstile can be completed with the passage counter.

Identification systems:

For verification of access right of passing persons it is possible to connect to these turnstiles **BAR-ST-DUO** any type of barcode, magnetic card, proximity card, smartcard, biometric reader etc.

Outdoor design:

- special tighten turnstile construction for outdoor installation
- automatic heating of power unit controlled by thermosensor (necessary for turnstiles with electromechanical and motorized units)

Specific variants:

- stainless steel design
- custom colour in spray according to RAL
- material combinations