

# BAR ST-DUO

## BASIC CHARACTERISTIC

A double tripod turnstile **BAR-ST-DUO** is the most effective solution in environment where minimum installation space is requested and at the same time is necessary to provide a high frequency with intense movement of people. This turnstile is characteristic by two tripod heads, each is on one side of turnstile, it provides independent passing in any direction. Large capacity, modern construction and attractive design, functional reliability, minimum operating costs and the most modern manufacturing technology guaranteeing a high level of quality, these are properties that make **BAR-ST-DUO** turnstile to be the most effective part in any interior or exterior.

Sophisticated control electronics enables easy setting of its own operating turnstile mode and together it makes possible the communication with different types of identification systems including manual control. Turnstile is made according to arm's orientation as RIGHT (standard) or LEFT. Turnstile **BAR-ST-DUO** can be equipped with ANTI-PANIC function for one or both heads.

**TURNSTILE BAR-ST-DUO IS STANDARDLY SUPPLIED WITH THREE TYPES OF DRIVE UNIT:**

### Motor drive unit MT (standard)

Turnstile BAR-ST-DUO 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 rotation speed of passing person
- 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 activity is controlled by electromechanical unit with the following functions:

- Active blocking system based on electromagnets enabling the passage to only 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
- Possibility of 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 used to regulate and control the number of passing people generally in one-direction.

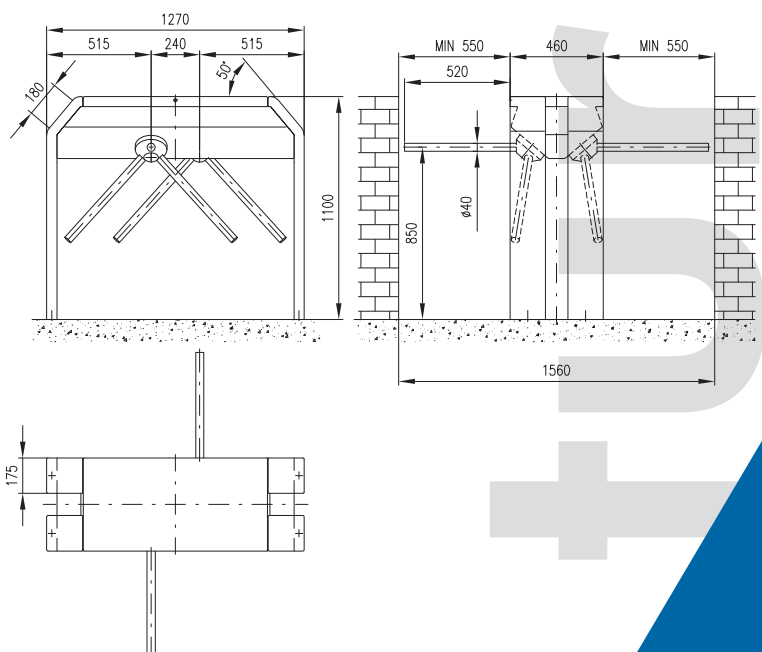
### TURNSTILE MATERIALS AND SURFACE TREATMENT

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:** 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 - Antigua silver + transparent paint) or from stainless steel sheet (standard - polished).

**Arms:** stainless steel tube  $\varnothing$  40mm (standard - polished design)

Other mechanical parts of turnstile are finished by galvanic zinking 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	1,6W	20W	40 - 60W
Motorized FAIL-SAFE	12VDC	2W	2W	30 - 40W
Electromechanic without power blocked	24VAC/DC	5W	16W	16W
Electromechanic without power released	24VAC/DC	24W	16W	16W

- 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 48W. 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 850mm 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 (free-to-turn mode, Fail-Safe motor required)

### ANTI-PANIC device:

By customer's request, the turnstile **BAR-ST-DUO** can be equipped with the **BAR-ST-DUO** 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:

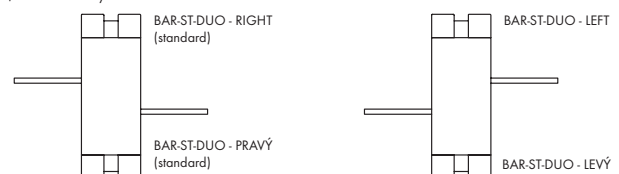
Turnstile can be completed with the passage counter.

### 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 warming of power units 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
- Turnstile with arms LEFT design