

## Pedestrian Swing Gate

### MPS 122

Technical data	Type	MPS 122
Drive system		MHTM®
Voltage	V	110/115/230/240
Frequency	Hz	50-60
Power requirement	W	45
Opening / closing time	s	1.5 - 4.0 <sup>1</sup>
Opening angle, works setting	°	2x90
Height	mm	1000
Diameter	mm	159
Weight	kg	40
Degree of protection	IP	44
Operating temperature	°C	-25 / +45 <sup>2</sup>

<sup>1</sup> Depending on dimensions  
<sup>2</sup> With heating activated

#### Product description

The MPS (Magnetic Pedestrian Swing Gate) range of pedestrian barriers was developed to control the access of persons in basic security applications with surveillance. The barrier can be operated in one or both directions. These barriers are also used to supplement our turnstiles and flap barriers, in particular to provide passage for wheelchairs and for persons carrying large items of luggage.

#### Typical fields of application

- ▶ Commercial buildings
- ▶ Museums
- ▶ Sports stadiums
- ▶ Public facilities
- ▶ Government offices
- ▶ Banks
- ▶ Airports
- ▶ Leisure facilities

#### Housing

The housing (column) is basically a polished, grade 1.4301 (V2A) stainless steel tube with a diameter of 159 mm, which provides degree of protection IP44. The drive unit is concealed within the housing and rotates the outer stainless steel tube. This rotatable part of the barrier has two or three brackets for mounting barrier elements. These can be standard rails, glass flaps (toughened safety glass or laminated glass), or customer-speci-

fic barrier elements.

#### Drive system

The drive unit incorporates our innovative and exceptionally reliable **MHTM®** (Magnetic High Torque Motor) drive technology. This offers numerous advantages, such as a long working life, freedom from maintenance, silent operation, low dynamic forces, obstacle detection, and harmonic opening and closing motions.

In the inactive state, the motor has a very low power requirement. The heat generated prevents condensation and enables use of the barrier in extreme ambient conditions. In combination with the MBC-110 logic controller, the system provides functions for a multitude of applications. The speed and opening time are adjustable. The opening angle can be different for each direction, and is adjustable over a wide range from 10° to 300°.

#### Safety

The intelligent drive system recognises during opening / closing if there are persons or objects in the swept zone, and so ensures the greatest possible protection against injury or damage. The behaviour of the barrier after contact with an obstacle is adjustable.

Unauthorised access or manipulation of the barrier by opening or turning the flap or rail is

prevented by an electromagnetic dog clutch. In addition, it can trigger an alarm signal, e.g. at a safety control centre or a video system.

In the event of a power failure or in an emergency the power supply to the motor is switched off and the dog clutch released to provide free passage. MPS swing gates are available in a version with approval for use in emergency exits and rescue routes.

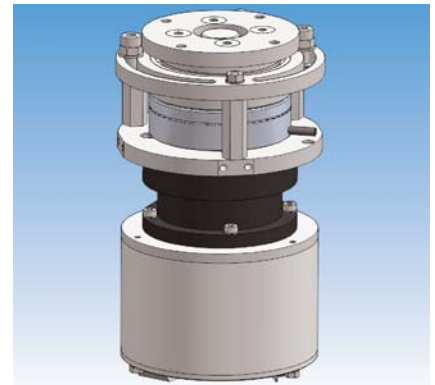
#### Drive technology

Motor technology  
MHTM® Pat. No. DE 103 53 366  
The key component of the MPS drive is the highly dynamic **MHTM®** - Magnetic High Torque Motor with precision position feedback. The major feature of this motor is its high torque combined with harmonic opening and closing motions. This ensures fast acceleration and braking, and, at the same time, low forces and improved safety.

### Locking / vandalism protection

An electromagnetic dog clutch allows the barrier to be locked in small steps; the positions are determined by the teeth of the clutch. This prevents the barrier from being forced out of its end position or moved against the released direction of passage.

In the event of panic or vandalism, protection and safety are ensured by a force limiter. In the event of a power failure or in an emergency, the dog clutch opens to provide free passage.



### Motor controller MMC-120

The motor controller permits precise regulation of the motor taking account of parameters such as torque, speed, acceleration and braking in any position. The combination of a highly dynamic motor and precise regulation enables a safe, harmonic rotary motion and, simultaneously, quick reaction to manipulation, obstacles, or contact.

#### Main features of the motor controller:

- ▶ CAN bus for integration in a network
- ▶ Safety release, e.g. by a fire alarm system
- ▶ Precision position regulation
- ▶ Adjustable acceleration and braking ramps
- ▶ LEDs for diagnosis
- ▶ Dimensions: 220 mm (L) x 141 mm (W) x 62 mm (H)



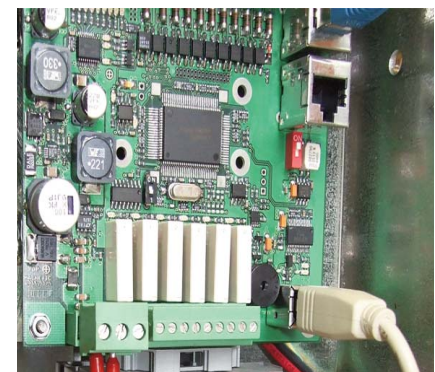
### Logic controller MBC-111

The logic controller offers a high degree of functionality and flexibility to meet customer-specific requirements. It can control the pedestrian barrier either by means of serial commands from a communication point, or using digital inputs and outputs.

The MBC-111 controls all functions of the barrier independently. It accepts opening commands from an external access-control system such as a card reader or a finger-print reader, etc.

#### Main features of the logic controller:

- ▶ CAN bus or serial interface for integration in a network
- ▶ Control extensions via CAN bus
- ▶ 9 digital inputs, 6 relay outputs
- ▶ Functions: open, direction of passage, emergency, reset
- ▶ Signal output error, power failure, unlock, lock, and counting impulse
- ▶ LEDs and display for service and diagnosis purposes
- ▶ Dimensions: 105 mm (L) x 105 mm (W) x 18 mm (H)



### Controller housing with mains unit

The logic controller MBC, the mains unit, the main switch, and the terminals for connecting the access-control reader or a signal provider, such as a fire alarm system, are all installed in the MPS column. Thus, the unit can be quickly and easily connected.

Diagnosis and service software which runs on Microsoft Windows® is available for changing parameters and reading error messages.

### Declaration of Conformity

The barriers and controllers comply with CE requirements. On request barriers can be supplied with UL or other certification.

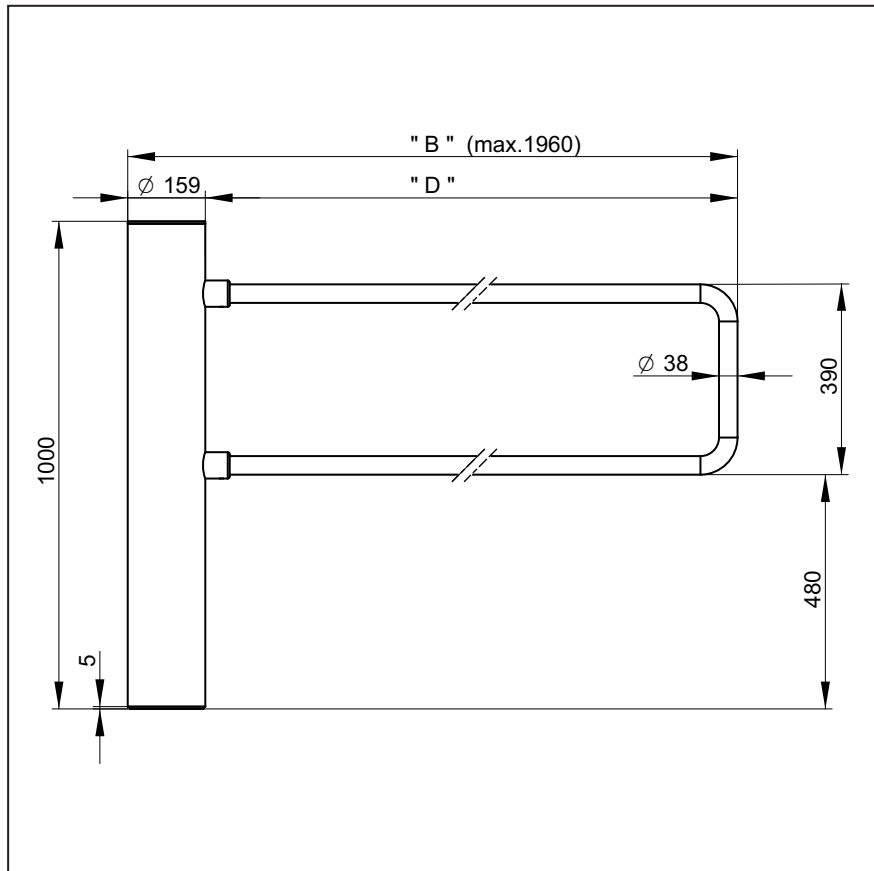
**Dimensions and configurations:**

The drawing shows the standard dimensions for a barrier with a U-shaped rail.

Other dimensions and various flap designs are available on request.

Overall width B = 1960 mm including column, corresponds to a barrier width of D = 1800 mm

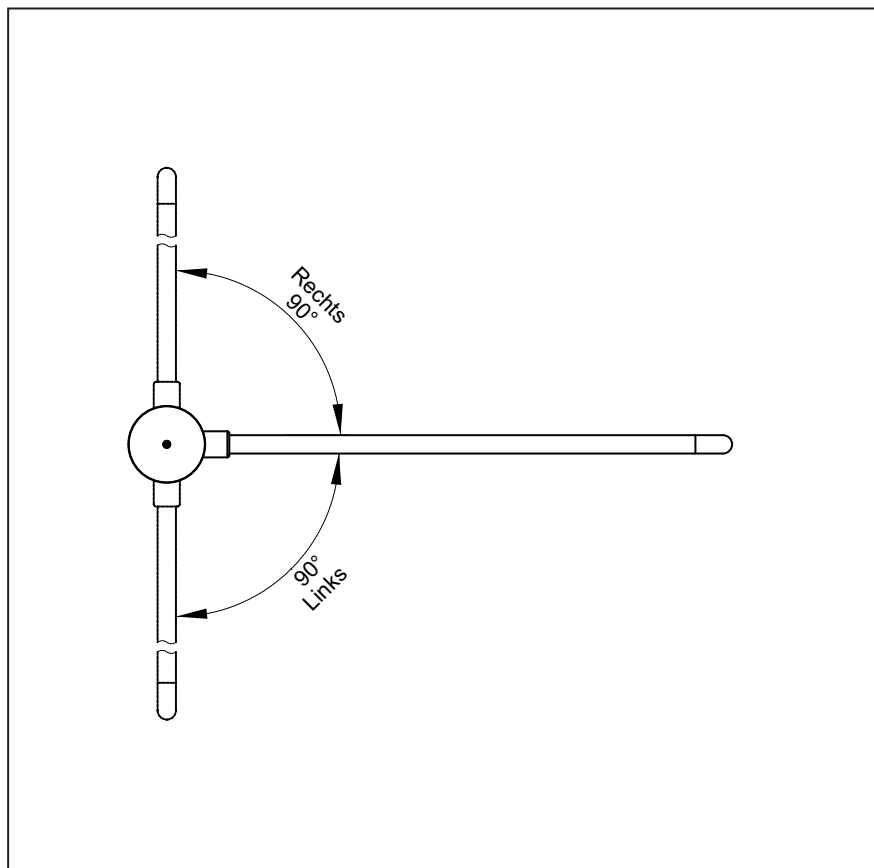
Indoor and outdoor applications with rail barrier



The works setting for the opening angle is 90° in each direction.

The two parameters can be changed independently of each other in a range from 10° to a maximum of 300°.

When commissioning, the works setting for the home position is on the right.



**Dimensions and configurations:**

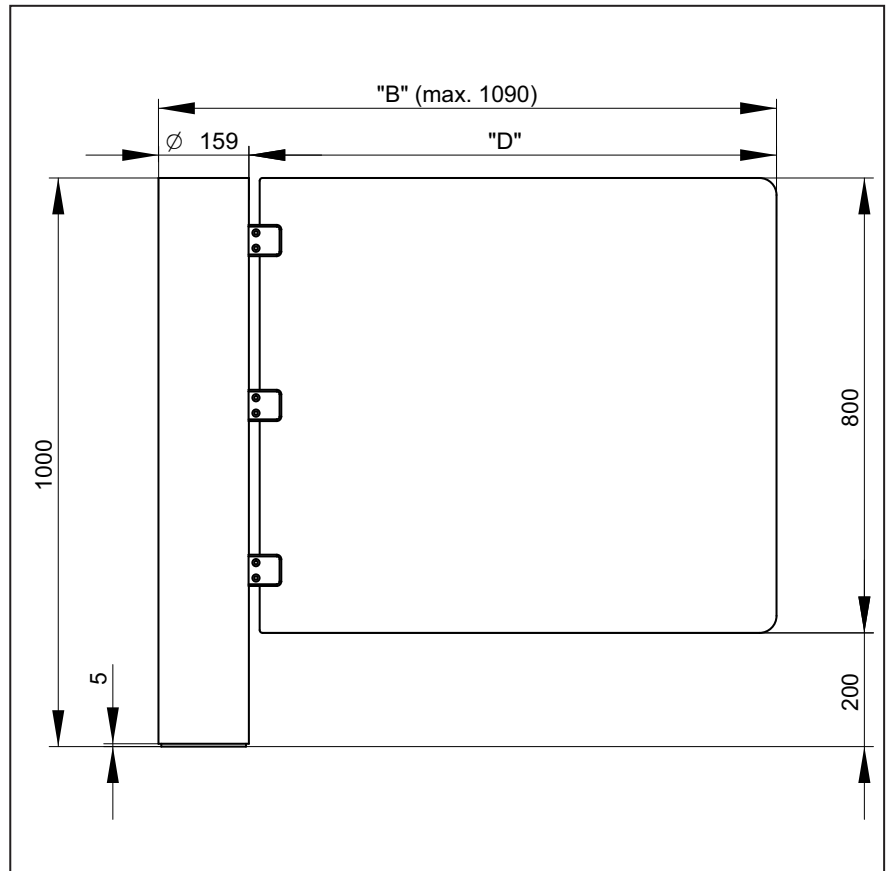
The drawing shows the standard dimensions for a barrier with a glass flap.

Other dimensions and various flap designs are available on request.

Version with glass flap for indoor applications

Toughened safety glass TSG

Overall width B = 1090 mm including column corresponds to a barrier width of D = 930 mm



The works setting for the opening angle is 90° in each direction.

The two parameters can be changed independently of each other in a range from 10° to a maximum of 300°.

When commissioning, the works setting for the home position is on the right.

