

Pedestrian Swing Gate

Technical Data	Type	MPS 122
Motor Drive		MHTM®
Voltage	V	110-240
Frequency	Hz	50-60
Power consumption max.	W	45
Gate opening/closing time	s	1.5 - 4.0 ¹
Opening angle default	°	2x90
Height	mm	1000
Diameter	mm	159
Weight	approx. kg	40
Protection	IP	44
Operating Temperature	°C	-25 / +45 ²

¹ depending on the wing dimensions
² with activated motor heating system

Product description

The pedestrian barrier series type MPS (Magnetic Pedestrian Swing Gate) is designed to control pedestrians entering or exiting restricted areas in low security applications, usually under surveillance. Operation is possible in either one-way or two-way bi-directional mode. These gates are also used to complement our turnstiles and retractable pedestrian gates especially where passage of larger items is required. With an opening of up to 1 meter, items such as wheelchairs, luggage and oversized packages are easily accommodated.

Typical Fields of Applications

- ▶ Commercial Buildings
- ▶ Sports Stadiums
- ▶ Museums
- ▶ Corporate Entrances
- ▶ Public Facilities
- ▶ Airports

Housing

The main body of the housing is constructed from a 159 mm diameter polished 304 stainless steel tube and comes with protection class IP 44. The drive unit is concealed and mounted within the main body of the housing. The rotating section of the column has 2 fixed flanges as a provision for the gate wing attachment. These flanges allow for

the fixing of the standard gate wing as well as customized wing designs.

Drive System

The drive system is comprised of our Magnetic High Torque Motor MHTM® in combination with a planetary gear-box. It offers numerous benefits including nearly noise-free operation, small dynamic forces, impact detection, lowest abrasion and fastest opening / closing times. Low power is applied to the motor in the home position therefore the heat dissipated prevents condensation and prolongs the lifetime of the motor. In combination with the MBC-110 logic controller, the system provides functional features that meet almost any application. Speed and hold-open time are adjustable. Different opening angles can be programmed for both directions individually in a wide range of approximately 10 to 300 degrees.

Fraud and Safety

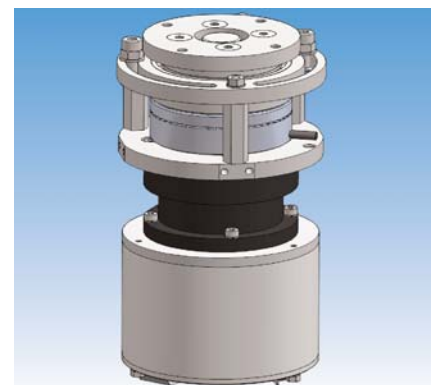
The intelligent drive system is able to detect impacts on patrons or luggage. In this case, using programmable parameters, the gate can react accordingly to protect patrons and luggage. An electromagnetic tooth brake prevents the gate arm from being forced in either of the end positions or pushed in the opposite direction. In case of power failure or an emergency situation, the motor will be powered-off and the tooth brake will be released, allowing free passage.

Drive Technology

The key component of the MPS drive system is our reliable MHTM® - "Magnetic High Torque Motor" with integrated resolver for precise positioning feedback. High output torque for fast acceleration and fast deceleration are one of the main features of this motor.

A planetary gear-box is used as a transmission between the motor and the rotating section of the column. It has the advantage to allow the use of a wide range of different gate arms or panels without needing to adapt the motor parameters to the load.

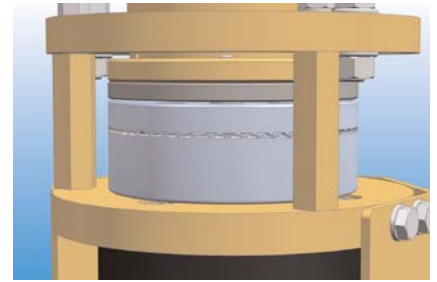
With no power, the gate arm can be freely rotated.



The Gate Locking System

An electromagnetic tooth brake allows locking the gate in small incremental steps in any position. This prevents the gate arm from being forced from the end positions or from being pushed in the opposite direction.

In case of power failure or emergency opening, the tooth brake will be released allowing for free egress.



The Motor Controller MMC-120

The MMC-120 motor controller, using the latest DSP technology, allows very accurate control of the torque, speed, acceleration and deceleration parameters of the motor in any position. In combination with the resolver feedback, this results in a highly dynamic operation of the drive system. Thus, the system can react very fast in abnormal situations like detected impacts or attempts to force the gate open.

Main features of the controller:

- ▶ CAN Bus interface for networking and software download
- ▶ 3 phase servo drive power end-stage
- ▶ Closed loop operation for precise positioning
- ▶ Ramping up and down configuration
- ▶ Fully adjustable speed
- ▶ Resolver input for position feedback
- ▶ LED indicators for operation and error diagnostics
- ▶ Dimensions: 220 mm (L) x 141 mm (W) x 62 mm (H)



The Logic Controller MBC-110

The MBC-110 provides a high level of flexibility to fulfill customers requirements. It is able to control the operation of the gate either by commands received from one of the serial communication ports or by digital inputs and outputs.

The MBC-110 operates in stand-alone mode. It is in full control of processing a passage through the gate. Opening commands are received from external access control devices such as card readers, fingerprint readers, etc. The gate closes after an adjustable time-out.

Main features of the controller:

- ▶ CAN Bus or serial interface for networking and download
- ▶ System can be extended via RS232 / RS422 / RS485 / CAN-Bus / I²C-Bus
- ▶ 9 digital inputs, 6 relay outputs, 4 MOSFET outputs
- ▶ LEDs and display for operation / error diagnostics
- ▶ DIP switches to select parameter settings
- ▶ Dimensions: 220 mm (L) x 185 mm (W) x 60 mm (H)



The Power Supply

The 110 - 240 V / 50 - 60 Hz power supply provides power for the motors and gate controllers.

Declaration of Conformity

The gate and controllers comply with the CE regulations. The gate can be supplied with UL certification and others on request.

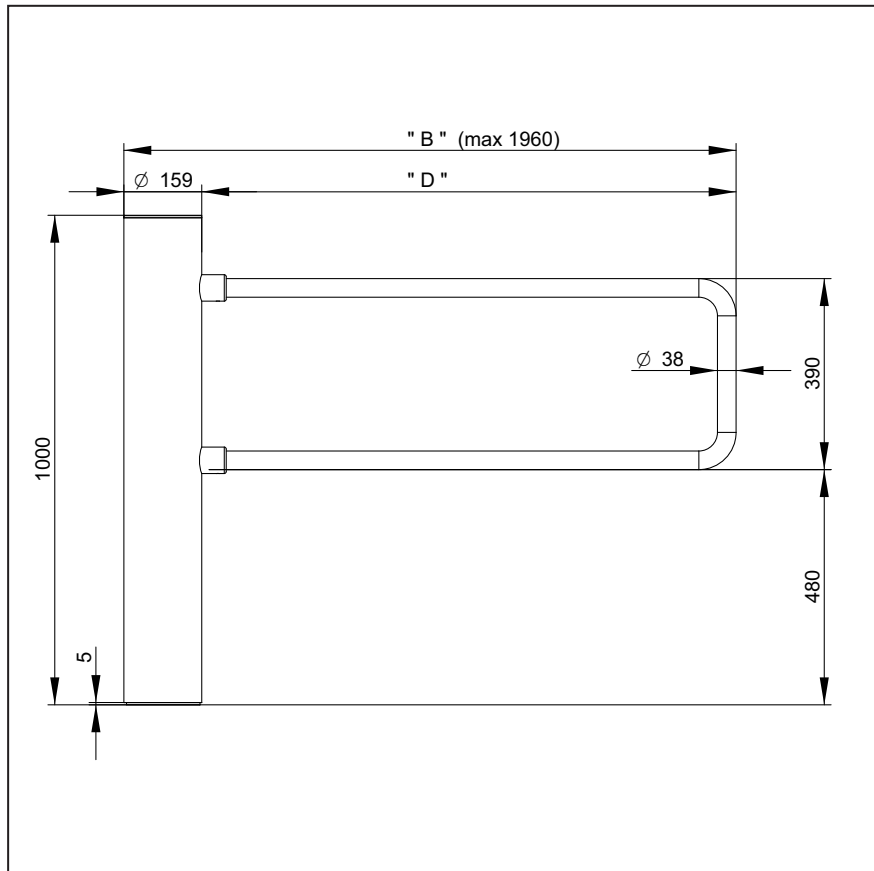


Mechanical Dimensions and Configurations

The drawing shows the standard dimensions of the gate with a U-bar.

Other dimensions and different wing types are available upon request.

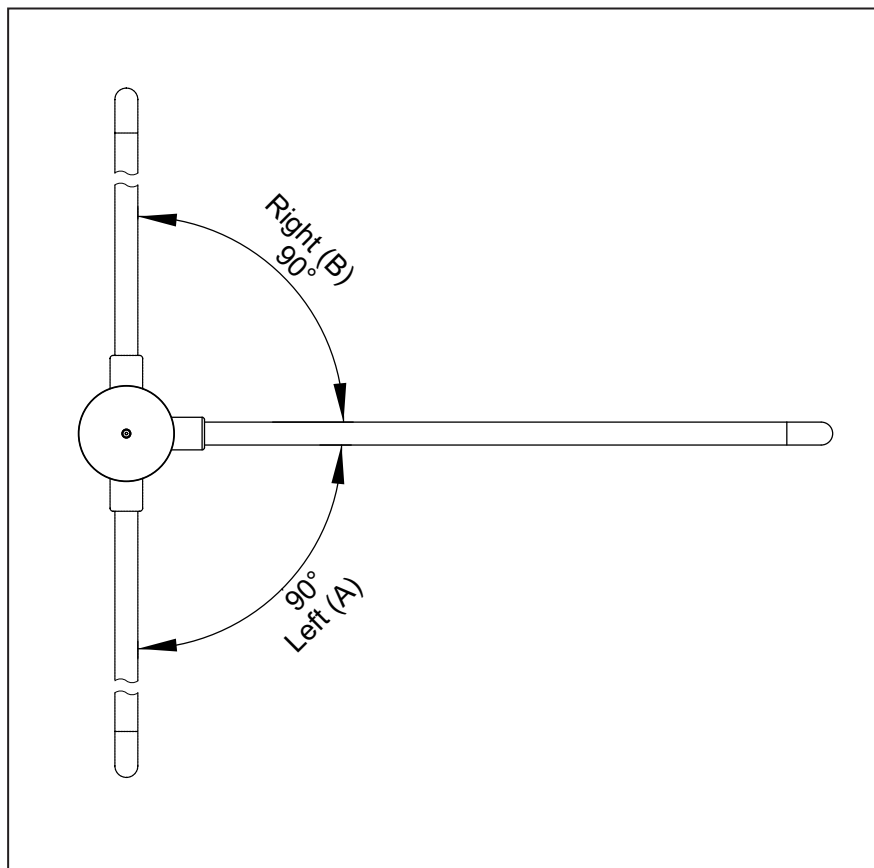
Total width B = 1960 mm including the column corresponds to a passage width of D = 1800 mm



A Microsoft Windows® based diagnostic and service software is available for changing parameters and error message readouts.

The default parameter value for the opening angle in both directions is 90°.

Both parameter values can be changed independently in a range of 10° to 300° maximum.



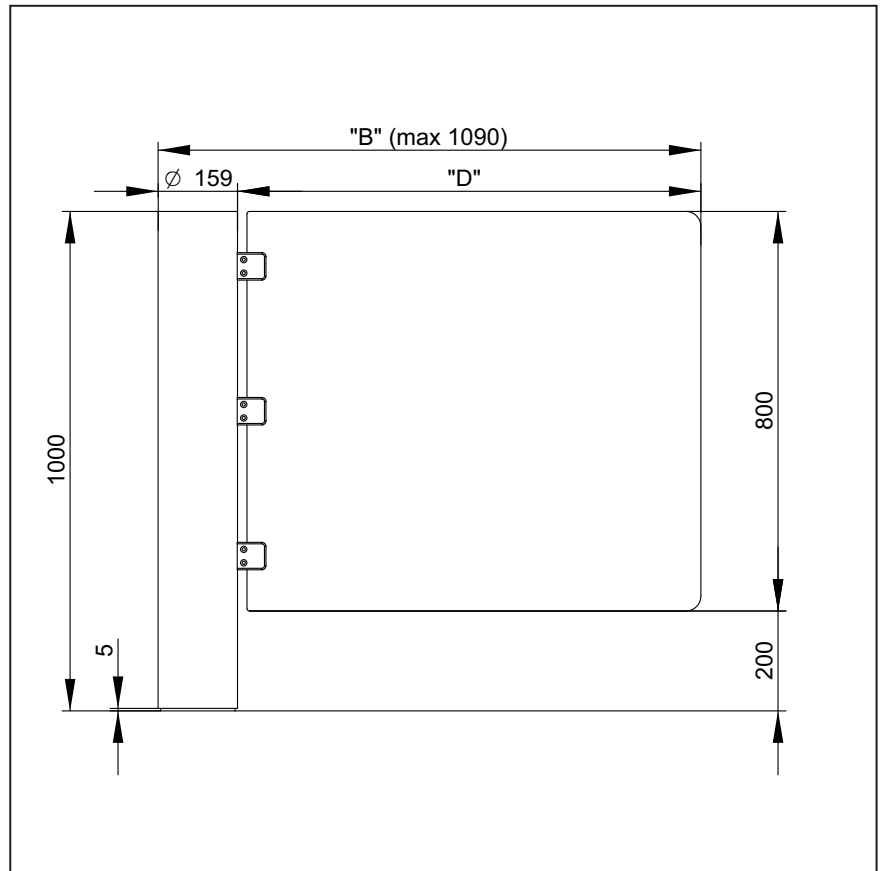
Mechanical Dimensions and Configurations

The drawing shows the standard dimensions of the gate with a glass wing.

Other dimensions and different wing types are available upon request.

Version with glass panel for indoor applications
Tempered glass

Total width B = 1090 mm including the column corresponds to a passage width of D = 930 mm



A Microsoft Windows® based diagnostic and service software is available for changing parameters and error message readouts.

The default parameter value for the opening angle in both directions is 90°.

Both parameter values can be changed independently in a range of 10° to 300° maximum.

