MCS61

- Reach: 2m to 15m
- Built-in wear-resistant compression spring:
  > 2.000.000 movements
- Adjustable opening speed
- Up to 5 year warranty
- Custom-made and delivered ready for installation

Parts

Barrier box

- Dimension: 550 W x 600 D x 1100 H
- Weight: 385kg (excl. barrier arm)
- Parts: folded and welded steel plate (3mm) with internal reinforcement (up to 15mm), an access door, a removeable cover and a base plate (6mm)
- Removable cover runs diagonally upwards to the center
- Pivot points are mointed with bearings and tension ring mounts

Barrier arm

- Oval barrier arm (175 x 100mm): 2m to 9m60
- Round barrier arm: 9m70 to 15m
- Red reflective strips (330 x 90 mm) are applied to both sides
- Balanced by a wear-resistant compression spring (> 3.000.000 movements)
- Secured by four stainless steel bolts which makes it easy to replace
- 3 types:
  Type R = right-hand mounted barrier arm
  Type L = left-hand mounted barrier arm
  Type C = centrally mounted barrier arm
- Secured by 3 (R, L, C) stainless steel bolts which makes the barrier arm easy to replace

Finishing

- Surface treatment: blasted and metallized
- Finished off with a thermo-hardened polyester coating

Opening

- Type N (normal) ~10 sec (min. 8,5 sec - max. 12 sec)

Safety

Emergency release accessible through the access door at the front of the barrier box. When the door is opened, a circuit breaker prevents the barrier from opening automatically.

Emergency crank

When the emergency crank is used, the current is automatically interrupted by a limit switch that is in contact with the motor gearbox. To use the emergency crank, swivel the cover on the right side of the barrier box.

The emergency crank comes standard with the MCS61.

Mechanism

Drive

- Electrical three-phase asynchronous motor
- Speedgear unit with slip-action clutch
- Crankshaft-connecting rod-mechanism
- Built-in dectable compression springs
- Motor drives the speedgear unit using a simplex chain/v-belt combination
- Double bearing intermediate shaft (Ø 45mm) is driven by a speed gear unit using chain transmission. (This shaft transmits the movement using a crankshaft-connecting rod mechanism to the double bearing output shaft. (Ø 60mm))
- Frequency control ensures a smooth motion

Durability

Slip action clutch in the gear unit ensures a safe ratio between the torque exerted and the torque required. By combining the favourable power factor (1,2) and this clutch, the gear unit is maintenance-free.

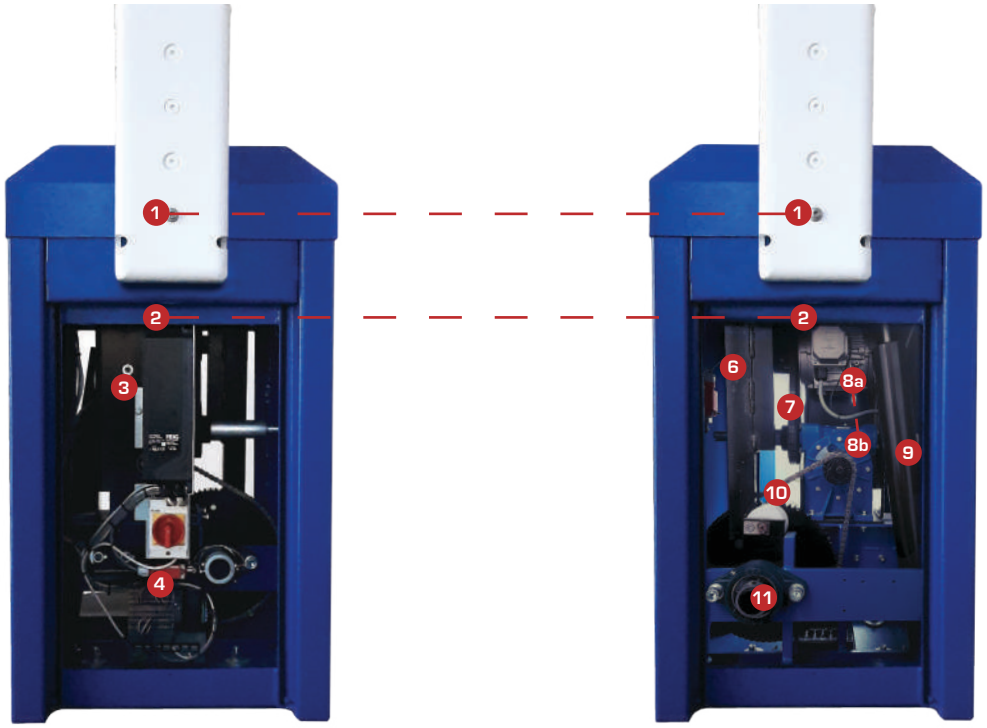
Control system

The built-in microcontroller is suitable for various applications (such as 3-push button, change pulse, start with automatic reclosing, loop start, ...) and is provided with a magnetic motor protection switch. This control prevents prolonged slipping and ensures a long service life of the motor. The microcontroller can be connected to other building management or home automation systems with associated software.

Operating temperature

The MCS61 has an operating temperature of -5°C to 50°C. With the addition of the optional heating mat, the range of the operating temperature increases to -30°C to 50°C.

Technical information and accessories



Left-side view

Right-side view

1	**Upper shaft**	
2	**Door switch**	
3	**Control**	FEIG-TST FUZ2-B
	Power supply	3F 230 VAC/400VAC
	Frequency	50 - 60 Hz / 1,5 kVA
	Power usage	30 Watt
4	**Limit switches**	
5	**Terminal strip**	
6	**Connecting rod**	
7	**V-belt connector between motor and reductor**	
8	**Motorreductor with (or without) internal slip clutch**	
	Power supply	230 VAC
	Frequency	50 Hz
	Power usage	370 Watt
	Cosinus Phi	0.94
9	**Balance spring**	Max. 5
10	**Simplex ketting**	
11	**Bottom shaft**	

Position of the barrier arm

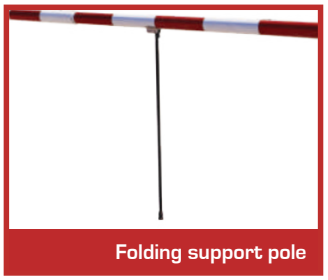
Dimensions barrier box	550 x 600 x 1100mm (WxDxH)
Parts barrier box	Folded and welded steel plate (3mm) with internal reinforcement (15mm), access door, removable lid, base plate (6mm)
Opening speed	**adjustable opening speed*
Type N *(standard)*	~10 sec (min. 8,5 sec - max. 12 sec)
Control	Frequency control
Operating temperature	-5°C to 50°C
Reach barrier arm	
Oval barrier arm	2000mm to 9600mm
With bottom skirt (oval barrier arm)	2000mm to 8300mm
Round barrier arm	9700mm to 15000mm
Options	
Potential-free contact of the limit switches in the terminal strips	
Maritime coating	
Stainless steel	
Support pole	
Bottom skirt	To 8300mm

Accessories - barrier arm

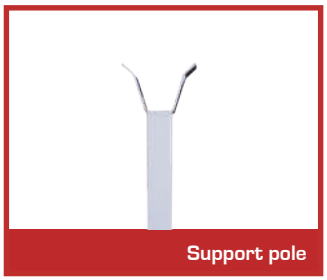

Safety strip

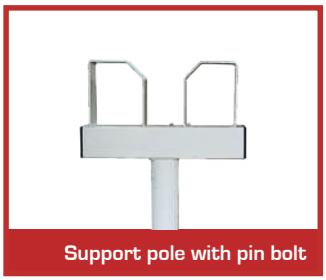
Bottom skirt

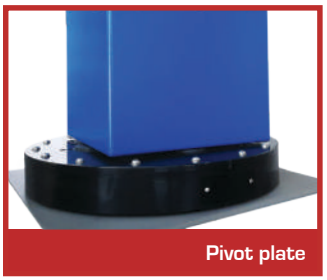

LED-lighting


Folding support pole

Accessories - general


Support pole

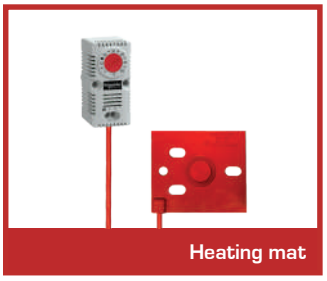

Support pole with pin bolt


Pivot plate


Laser sensor - horizontal


Laser sensor - vertical

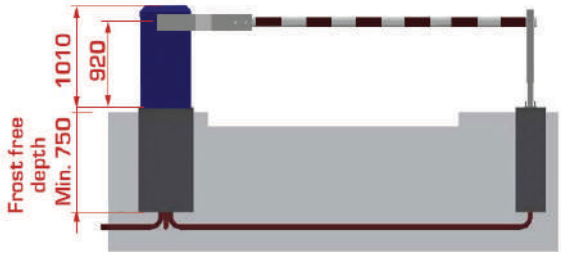

Photo cell

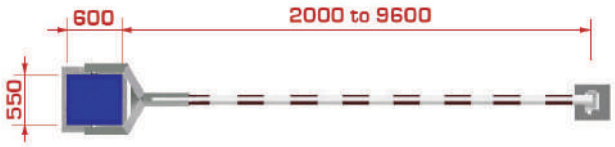

Heating mat

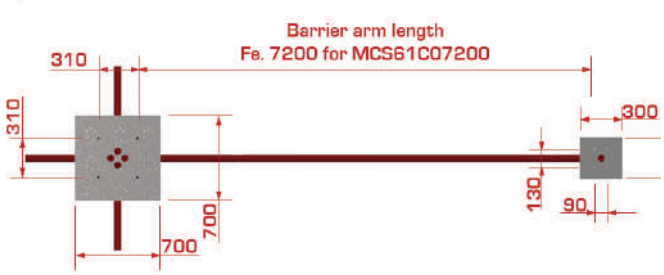

Loop detector - Bircher/FEIG

Technical drawings

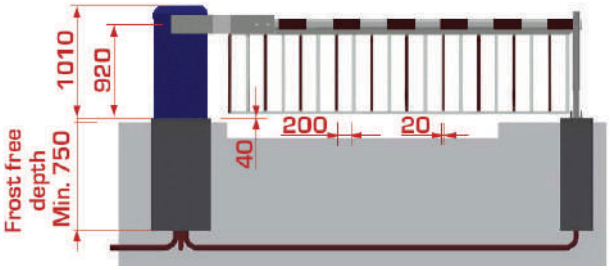
MCS61 - Centrally mounted oval barrier arm (175 x 100mm)

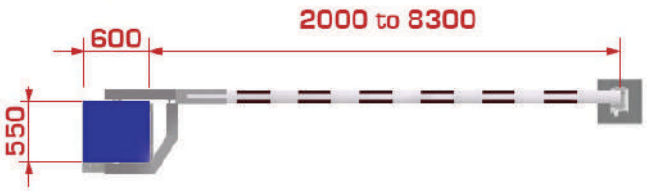


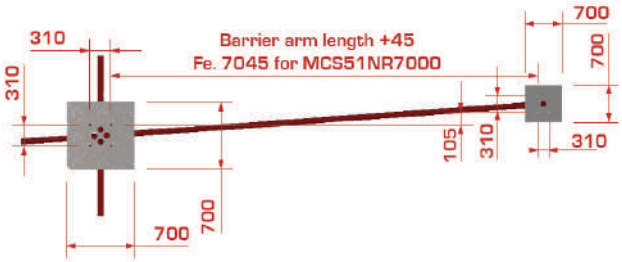




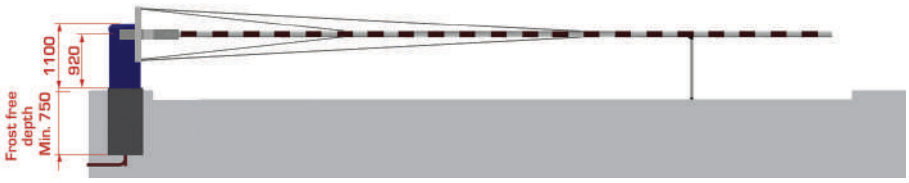
MCS61 - Oval barrier arm (175 x 100mm) with bottom skirt

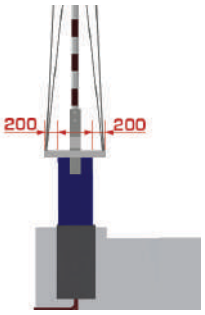


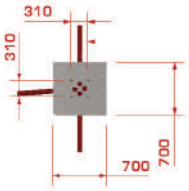




MCS61 - With tension cables







MCS61 - Heavy duty

- Barrier resistant to freezing weather, strong winds and other extreme weather conditions
- With or without tension cables
- Without slip clutch
- Mechanically loadable weight: 10kg at end of barrier arm in closed position
- Reinforced barrier arm holder
- Opening speed: 10 sec.

Parts

Barrier box

- Dimension: 450 W x 440 D x 1100 H
- Parts: folded and welded steel plate (3mm) with internal reinforcement (up to 12mm), an access door, a removeable cover and a base plate (6mm)
- Removable cover runs diagonally upwards to the center
- Pivot points are mointed with bearings and tension ring mounts

Barrier arm

- With tension cables: round aluminum (Ø 120mm) tube with a cover cap at both ends
- Without tension cables: round aluminum (variable Ø) tube with a cover cap at both ends
- Red reflective strips (330 x 90 mm) are applied to both sides
- Balanced by a wear-resistant compression spring (> 3.000.000 movements)
- Secured by 9 stainless steel bolts which makes the barrier arm easy to replace for extra stability
- 3 types:
  Type C = centrally mounted barrier arm

Finishing

- Surface treatment: blasted and metallized
- Finished off with a thermo-hardened polyester coating

Opening

- Type N (normal) ~10 sec (min. 8,5 sec - max. 12 sec)

Safety

Emergency release accessible via access door in front of column (locked). When the door is opened, the safety interrupter prevents that the barrier moves automatically.

Emergency crank

When the emergency crank is used, the current is automatically interrupted by a limit switch that is in contact with the motor gearbox. To use the emergency crank, swivel the cover on the right side of the barrier box.

The emergency crank comes standard with the MCS61 Heavy duty.

Mechanism

Drive

- Electrical three-phase asynchronous motor
- Speedgear unit with slip-action clutch
- Crankshaft-connecting rod-mechanism
- Built-in dectable compression springs
- Motor drives the speedgear unit uses a duplex chain
- Double bearing intermediate shaft (Ø 45mm) is driven by a speed gear unit using chain transmission. (This shaft transmits the movement using a crankshaft-connecting rod mechanism to the double bearing output shaft. (Ø 60mm))
- Frequency control ensures a smooth motion

Durability

Slip action clutch in the gear unit ensures a safe ratio between the torque exerted and the torque required. By combining the favourable power factor (1,2) and this clutch, the gear unit is maintenance-free.

Control system

The built-in microcontroller is suitable for various applications (such as 3-push button, change pulse, start with automatic reclosing, loop start, ...) and is provided with a magnetic motor protection switch. This control prevents prolonged slipping and ensures a long service life of the motor. The microcontroller can be connected to other building management or home automation systems with associated software.

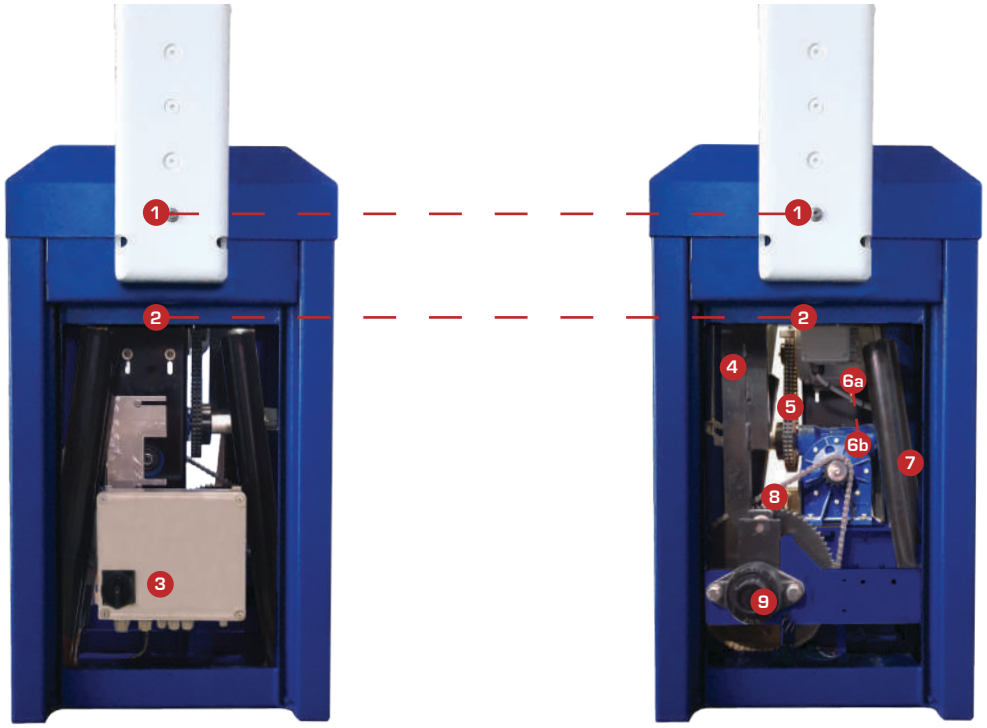
Operating temperature

The MCS61 Heavy duty has an operating temperature of -5°C to 50°C. **Optional:** The thermometer of the heating mat is set to maintain a temperature of >0°C. As a result the temperature of the engine and oil always above freezing. The operating temperature is -30°C to 50°C.

Operation without slip clutch

The MCS-Heavy duty range was designed without a slipping clutch to maintain a constant opening and closing speed under high bending stress in open or closed position (e.g. during heavy snowfall, buildup of frost on the barrier arm, strong winds, gusts or sudden change of wind direction). The MCS-Heavy duty range can be equipped with a slip clutch if desired.

Technical information and accessories



Left-side view

Right-side view

1	**Upper shaft**	
2	**Door switch**	
3	**Switch cabinet with terminal strip**	
4	**Connecting rod**	
5	**Chain transmission between motor and gearbox with duplex chain**	
6a	**Motor**	
	Power supply	230 VAC
	Frequency	50 Hz
	Power usage	550 Watt
	Cosinus Phi	0.94
6b	**Reduction box without internal slip clutch**	
7	**Balance spring**	Max. 5
8	**Duplex chain**	
9	**Bottom shaft**	

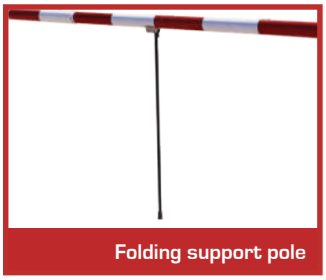
Position of the barrier arm

Dimensions barrier box	550 x 600 x 1100mm (BxDxH)
Parts barrier box	Folded and welded steel plate (3mm) with internal reinforcement (15mm), access door, removable lid, base plate (6mm)
Opening speed	**adjustable opening speed*
Type N *(standard)*	~10 sec (min. 8,5 sec - max. 12 sec)
Control	Frequency control
Operating temperature	-5°C to 50°C
Reach barrier arm	
Withou tension cables	2000mm to 12000mm
With tension cables	2000mm to 15000mm
Options	
Potential free contact of the limit switches in the terminal strip	
Maritime coating	
Stainless steel	
Support pole	

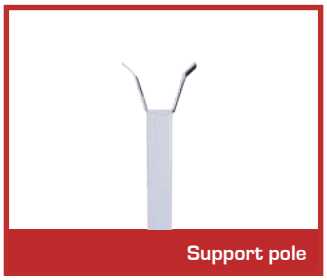
Accessories - boom barrier arm

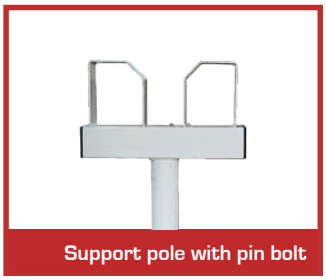

Safety strip

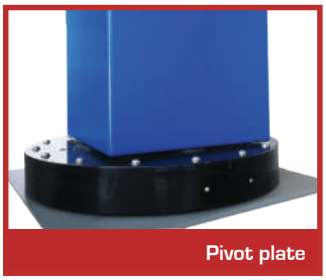

LED-lighting


Folding support pole

Accessories - general


Support pole

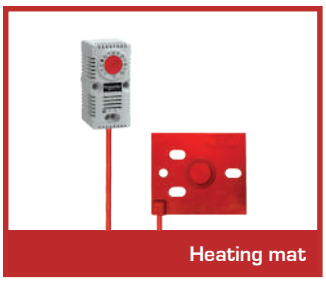

Support pole with pin bolt


Pivot plate


Laser sensor - horizontal


Laser sensor - vertical

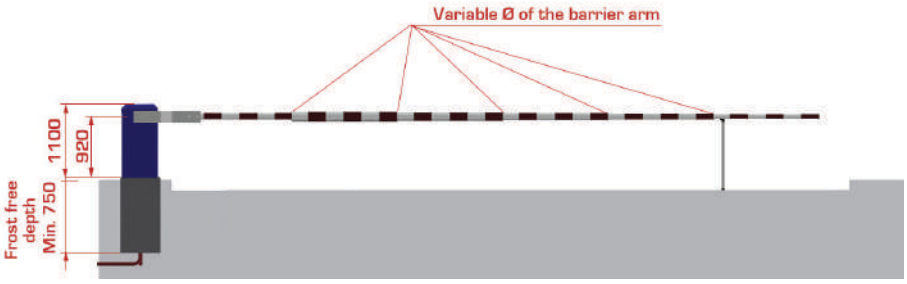

Photo cell

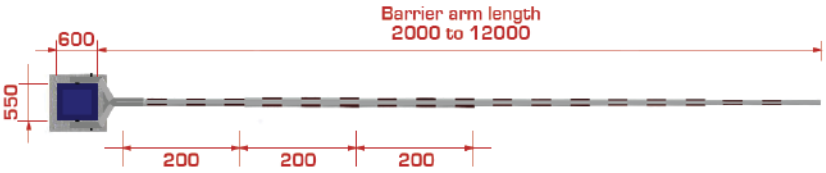

Heating mat

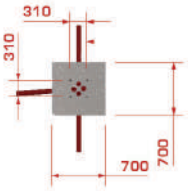

Loop detector - Bircher/FEIG

Technical drawings

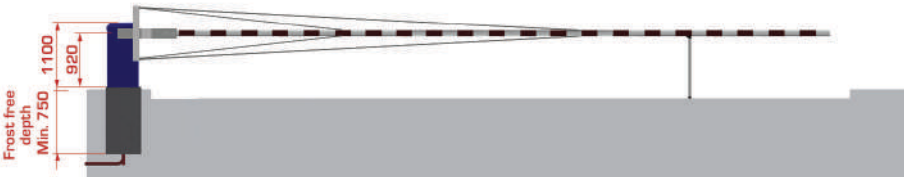
MCS61 Heavy duty - without tension cables

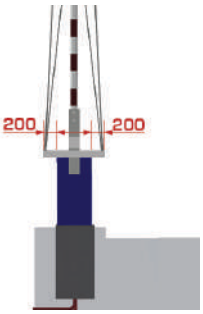


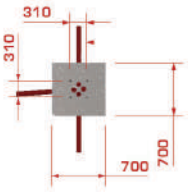




MCS61 Heavy duty - with tension cables







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