

- 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

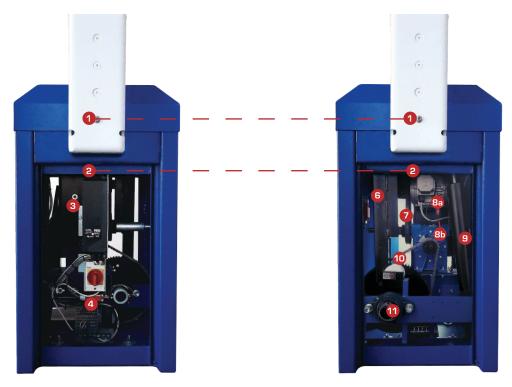
The built-in microcontroller is suitable for various applications (such as 3-push button, change pulse, start with automatic reclosing, loop start, ...) and is provided with a magnetic motor protection switch. This control prevents prolonged slipping and ensures a long service life of the motor. The 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	10 Simplex ketting			
11	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 <i>(standard)</i>	~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	Potential-free contact of the limit switches in the terminal strips		
Maritime coating			
Stainless steel			
Support pole			
Bottom skirt	To 8300mm		

#### Accessories - barrier arm

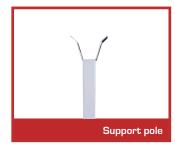




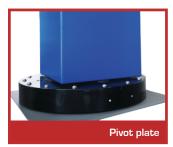




Accessories - general



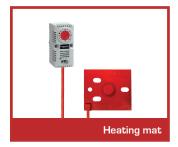










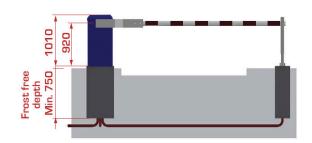


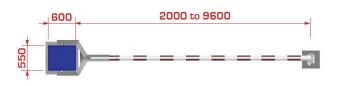


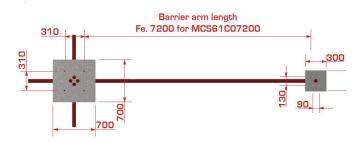


# **Technical drawings**

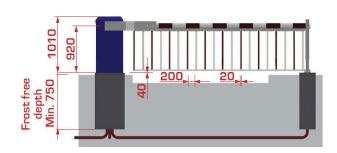
MCS61 - Centrally mounted oval barrier arm (175 x 100mm)

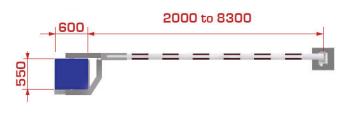


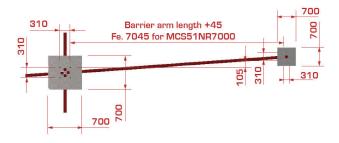




MCS61 - Oval barrier arm (175 x 100mm) with bottom skirt





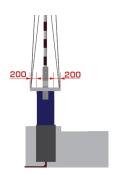




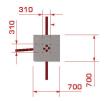


MCS61 - With tension cables









- 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 (extstyle 20 mm) tube with a cover cap at both ends
- Without tension cables: round aluminum (variable  $\varnothing$ ) 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.  $\label{eq:mcs61}$ 

#### 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 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

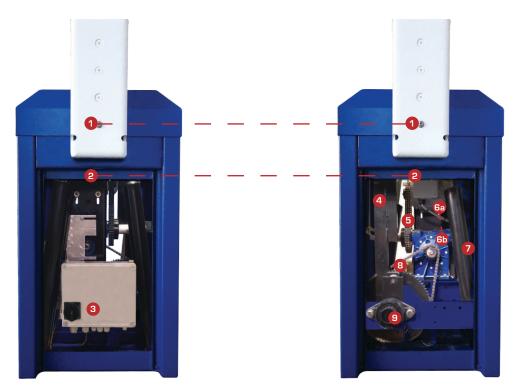
The MCS61 Heavy duty has an operating temperature of -5°C to 50°C. **Optional:** The thermometer of the heating mat is set to maintain a temperature of >0°C. As a result the temperature of the engine and oil always above freezing. The operating temperature is -30°C to 50°C.

## 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	6b Reduction box without internal slip clutch		
7	Balance spring	Max. 5	
8	Duplex chain		
9	Bottom shaft		

Position of the barrier arm



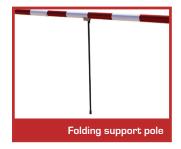


Dimensions barrier box	550 x 600 x 1100mm (BxDxH)			
Parts barrier box	Folded and welded steel plate (3mm) with internal			
	reinforcement (15mm), access door, removable lid,			
	base plate (6mm)			
Opening speed	*adjustable opening speed			
Type N <i>(standard)</i>	~10 sec (min. 8,5 sec - max. 12 sec)			
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				

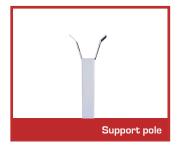
## Accessories - boom barrier arm



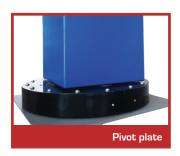




Accessories - general













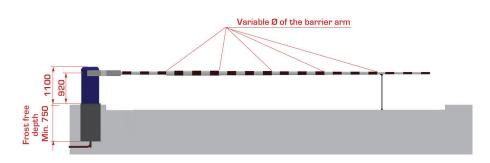


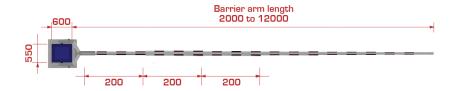


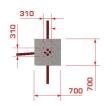


# **Technical drawings**

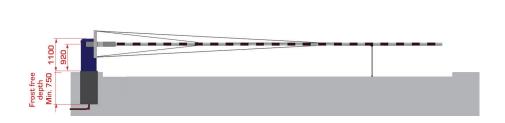
# MCS61 Heavy duty - without tension cables

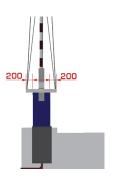




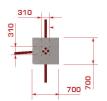


MCS61 Heavy duty - with tension cables











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