

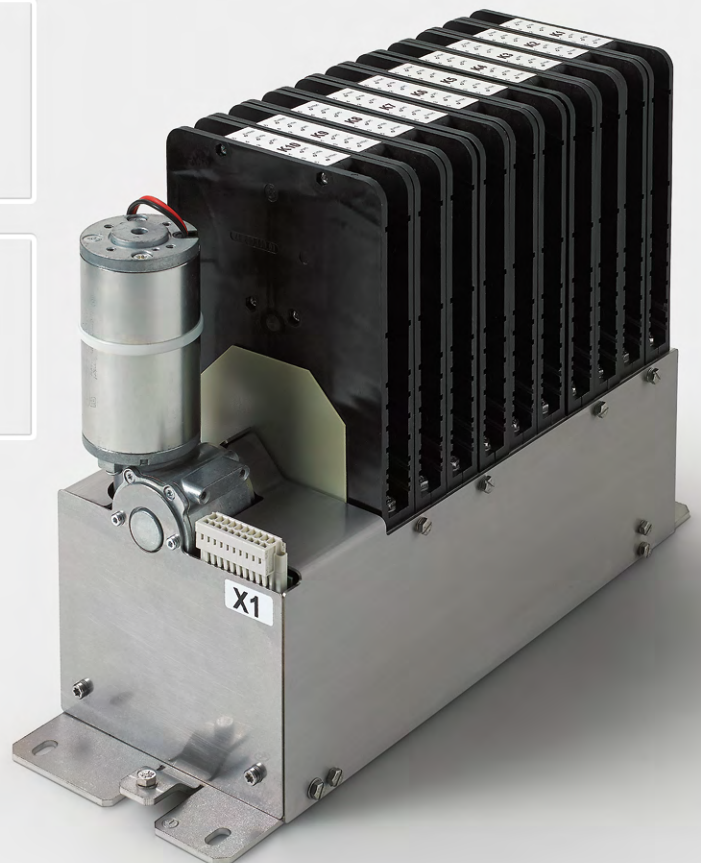
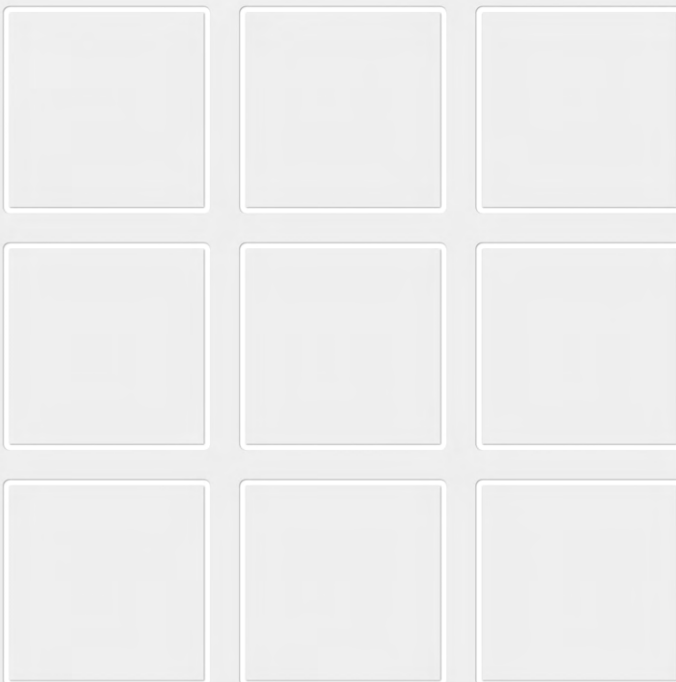
# 4

## Electrics for Rolling Stock

CO4 series

High-voltage changeover unit  
for rail vehicles

Flyer F180.en



More information  
[schaltbau.com](http://schaltbau.com)

## CO4 High-voltage changeover unit for rail vehicles

High-voltage changeover units of the CO4 series are switching devices for load-free configuration of electrical loads. The new 6-position devices are now more powerful – the cam switchgear configures faster and the switching chambers can carry higher currents. Changeover devices are

needed for voltage configuration for railway vehicles in cross-border traffic with changing supply voltages. Here, the changeover unit is the link between the train busbar and the electrical consumers, e.g. power supply systems and heating registers.

- ⌚ **Wide power range:** UIC voltages up to 3,600 volts, with reinforced insulation 5,000 volts; continuous thermal currents up to 100 amps. Load-free adaptation of electrical configurations to different train busbar systems according to UIC 550.
- ⌚ **6 switching positions:** 6 control inputs for 6 pre-configured positions, controlled via a motor-operated cam controller
- ⌚ **Modularity:** Cam switchgear with 2 to 10 switching chambers\* including ready-to-use connection configuration; customer-specific defined switching programmes as well as many switching programmes of European railway operators available.
- ⌚ **Standards:** Tested to railway standard EN 60077-1, EN 60077-2, UIC 550 as well as EN 50124-1 and EN 50163.

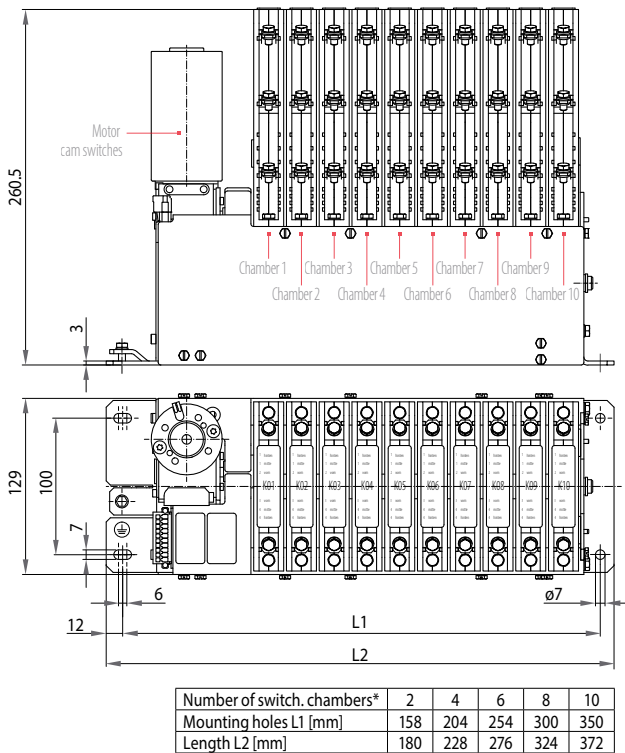
## Ordering code

Example: **CO4I-10-XX-YYY-N-WR**

<b>Series</b>	CO4I	High-voltage changeover device Cam-operated switchgear with 6 switching positions	<b>Power supply voltage</b>	24 ... 110 V DC, wide range	WR
<b>Switching chambers</b>	2 / 4 / 6 / 8 / 10	Number of switching chambers*	<b>Rated operating voltage</b>	3,600 V AC, 16 <sup>2</sup> / <sub>3</sub> ... 50 Hz, 3,600 V DC, UIC conform 5,000 V AC, 16 <sup>2</sup> / <sub>3</sub> ... 50 Hz, 5,000 V DC	N I
<b>Program number</b>	XX	(Customer) specific configuration			
<b>Number of bridges/</b>	YYY	Number of cross bridges/V-M bridges/M-H bridges, according to (customer) specific configuration			

**Note:**  
Only preferred types are shown in this flyer. Minimum order quantities apply for some variants. Please also ask for your customised version.

## Dimension diagram, circuit diagram



Dimensions in mm

## Specifications

<b>Series</b>	CO4	
<b>Type of voltage</b>	DC, AC (f ≤ 60 Hz)	
<b>Switching gear</b>	2 / 4 / 6 / 8 / 10 switching chambers*	
Number of	6 control inputs, 6 pre-configured positions	
Control	Cam gear, electric motor	
Drive		
<b>Contact system per switching chamber</b>		
Nominal voltage U <sub>n</sub>	3,000 V	
Rated operating voltage U <sub>e</sub>	3,600 V @ PD3, OV3 / 5,000 V @ PD2, OV2	
Rated insulation voltage U <sub>Nm</sub>	3,600 V @ PD3, OV3 / 5,000 V @ PD2, OV2	
Rated imp. withst. voltage U <sub>Ni</sub>	25 kV	
Pollution degree	PD2, PD3	
Overvoltage category	OV2, OV3	
Conventional thermal current I <sub>th</sub>	100 A	
<b>Drive</b>		
Control voltage U <sub>c</sub>	24 ... 110 V DC	
Control voltage tolerance	0.7 ... 1.25 x U <sub>c</sub>	
Power consumption	20 W during changeover operation, otherwise none	
<b>Vibration / Shock</b>	IEC 61373	Category 1, class B
<b>Mechanical endurance</b>	125,000 operating cycles	
<b>Mounting position</b>	horizontal, vertical (do not mount upside down)	
<b>Temperatures</b>	-40° C ... +85° C	
<b>Weight</b>	approx. 9.5 kg, device with 10 switching chambers	

\*others upon request

