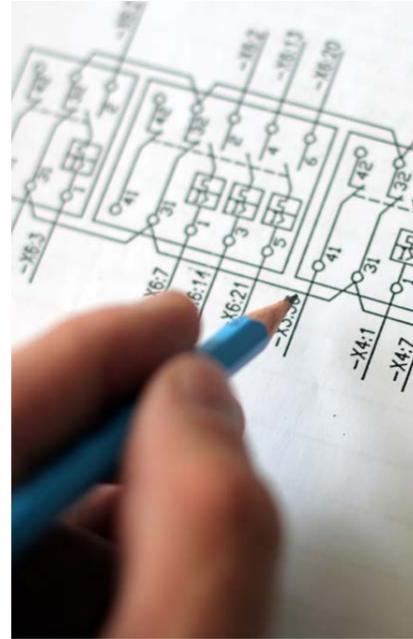


# Technical information

## ESX10-T electronic circuit protector

### Technical data

Operating voltage $U_B$	DC 48 V (18 ... 60 V)
Current ratings $I_N$	fixed rating: 1 A, 2 A, 3 A, 4 A, 6 A, 8 A, 10 A, 12.5 A, 16 A
Status indication via:	- multicoloured LED - potential-free signal output F - ON/OFF position of switch S1
Fail-safe-element	integral fail-safe element compliant with the current rating
Load output	power MOSFET switching output (plus switching)
Overload and short circuit disconnection	typically $1.2 \times I_N$ ( $1.05 \dots 1.35 \times I_N$ )
Capacitive loads	up to 5,000 $\mu\text{F}$
Dielectric strength	max. DC 63 V
Mounting method	rail mounting
Ambient temperature	-25...+60 °C (without condensation, cf. EN 60204-1)
Dimensions (w x h x d)	12.5 x 80 x 82 mm
Mass	approx. 65 g



## ESX10-T electronic circuit protector

### Optimum protection for DC 48 V motors



Easy installation on symmetrical rail: the ESX10-T electronic circuit protector



# ESX10-T electronic circuit protector for DC 48 V circuits

## Well-proven ESX technology at double voltage rating

E-T-A's type **ESX10-TC-DC48V** extends our product group of electronic overcurrent protection devices for DC 48 V applications. At a width of only 12.5 mm it provides selective protection for all DC 24 V, DC 36 V and DC 48 V load circuits.

The device trips at typically  $1.2 \times I_N$  and within milliseconds. It ensures overload protection also for DC 48 V motor loads and prevents inadvertent tripping in the event of quick load changes. The well-proven active current limitation also at  $1.2 \times I_N$  prevents shutdown of the supply voltage in the event of short circuits. It allows selective protection of several loads connected to one common DC 48 V supply. Clear and precise detection of overload and short

circuit significantly increases uptimes as well as application transparency.

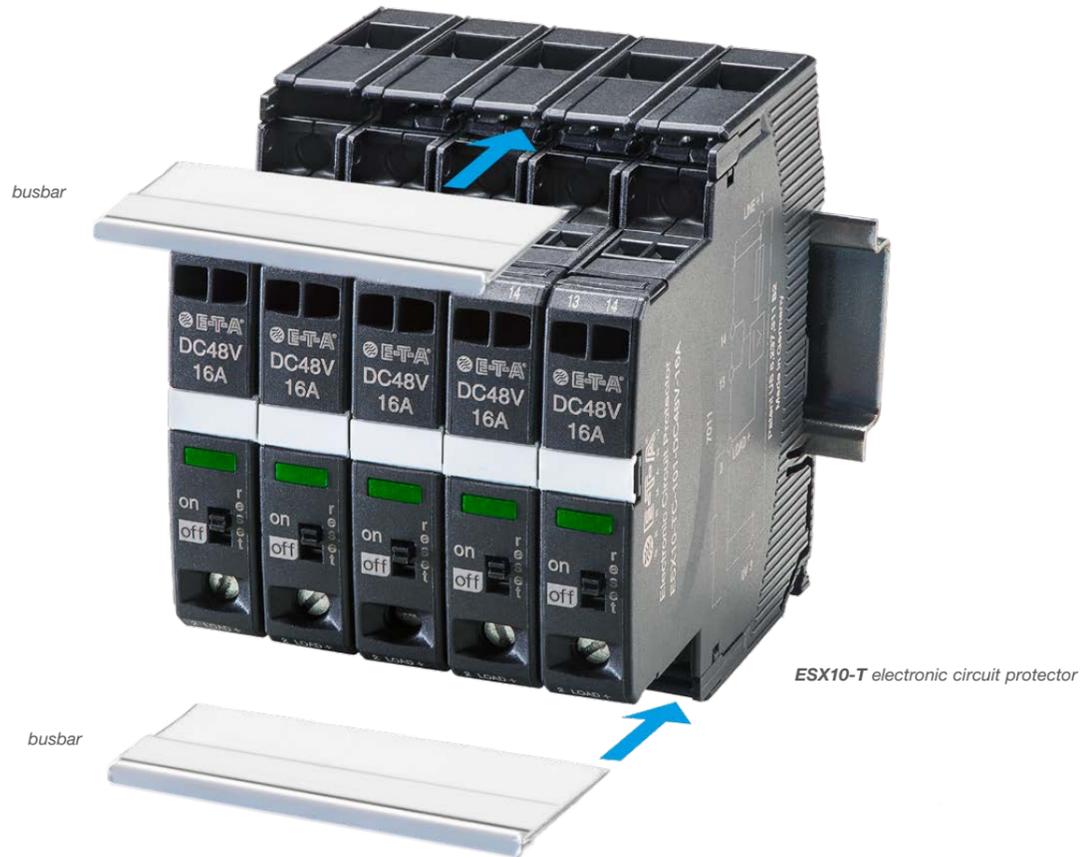
The robust design ensures unrivalled stability for selective protection of more loads at one DC power supply. E-T-A's **ESX10-TC-101-DC48V** electronic circuit protector provides superior performance and functional reliability, especially for the protection of power trains such as DC motors, multiphase motors, servomotors and their control technology.

**ESX10-T helps to save time and costs.** The track-mountable circuit protector's standard version provides one channel in the current ratings 1 A through 16 A. By means of busbars, the modular device allows construction of multi-channelled solutions and configuration of single

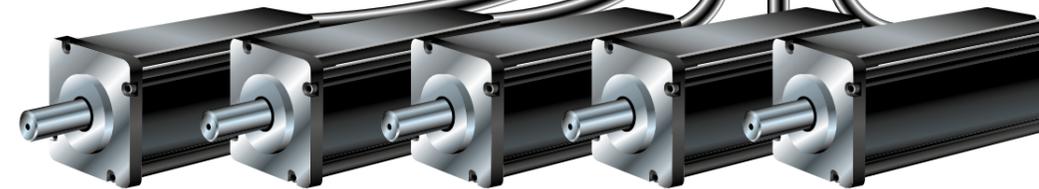
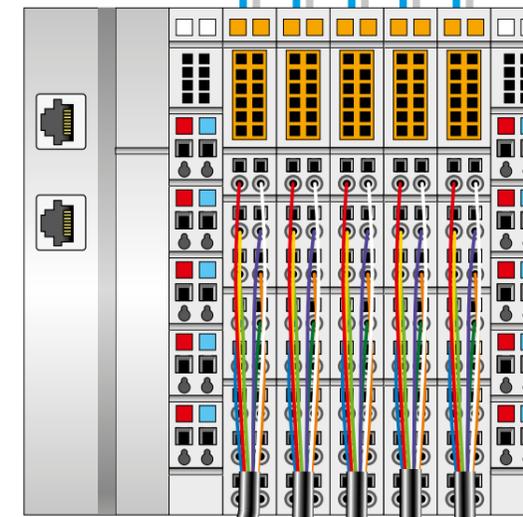
or group signalling. The sophisticated mechanical design of the component also enables a minus load return directly to the module. This function enables hardware planners to realise a sub-distribution directly on the **ESX10-T** electronic circuit protector.

### Features

- Three voltage ranges in a single device: DC 24 V, DC 36 V and DC 48 V
- Active linear current limitation
- Reverse voltage protected up to DC 63 V
- Capacitive loads up to 5,000  $\mu$ F
- Fixed current ratings 1 A ... 16 A
- Track-mountable
- UL approvals pending



### control unit



The robust design ensures unrivalled stability for selective protection of more loads at one DC power supply. The ESX10-TC-101-DC48V electronic circuit protector provides superior performance and functional reliability, especially for the protection of power trains such as DC motors, multiphase motors, servomotors and their control technology.



## Your benefits

- **Reduces machine downtimes** through robust design with maximum performance and faultless operation.
- **Increases productivity** with maximum transparency through clear and precise detection of short circuit and overload.
- **Simplifies planning and logistics** since only one product is required for three voltage ranges: DC 24 V, DC 36 V, DC 48 V.
- **Offers maximum flexibility** through modular design.

# DC 48 V circuits