ESM-BT401 (Order no. 090818)

Base unit ESM-BT.., 4 safety contacts, time-delay, Cat. 4

- Use up to category 4 according to EN ISO 13849-1
- LED status indicators
- 1-channel or 2-channel control
- 4 redundant safety contacts of which 3 contacts time-delayed
- Delay time range 1 s-30 s
- Short circuit and earth fault/ground fault monitoring

Relay outputs

The outputs are electrically decoupled and of redundant design.

Connection options

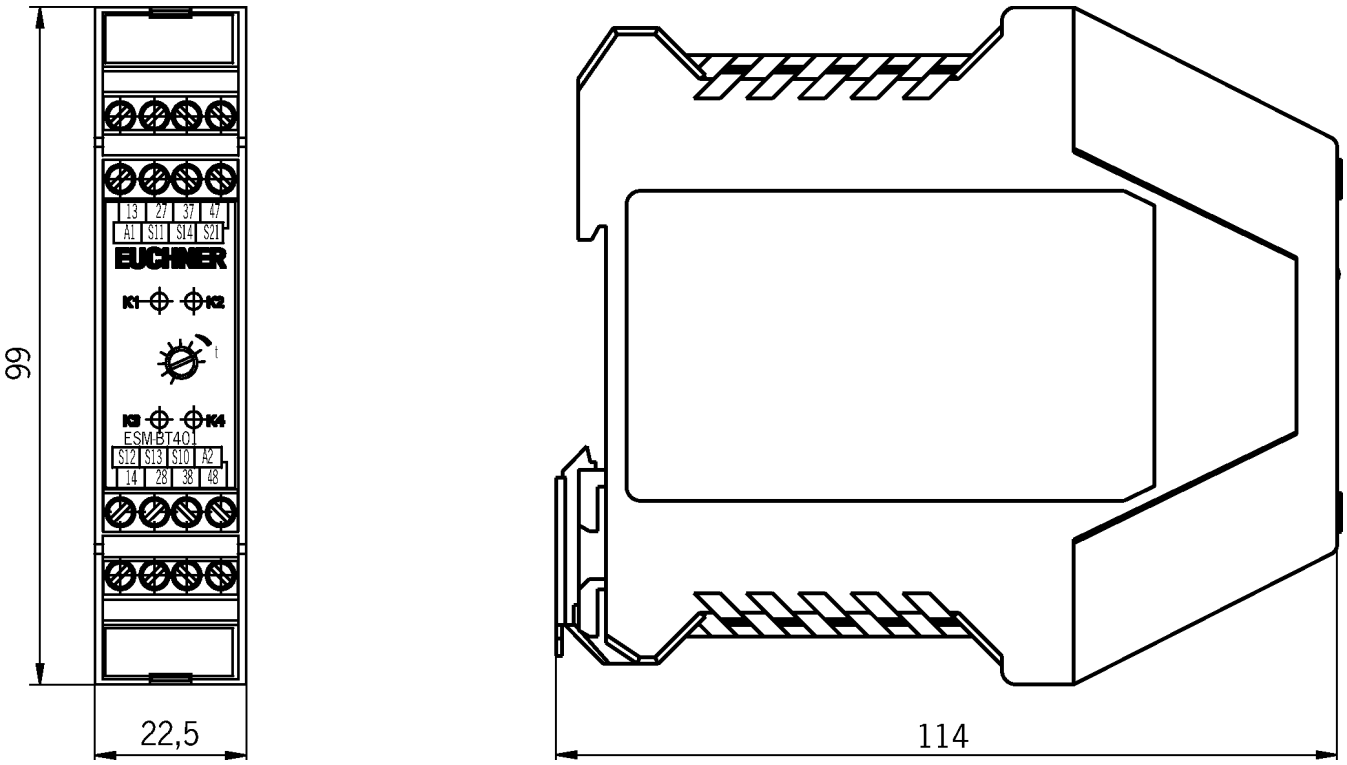
By using suitable wiring, the following functions can be selected:

- Relay start with automatic start, a start button or a monitored start button
- Monitoring of downstream relays or contactors.
- Simultaneity monitoring to monitor safety components over time
- Relay start using a monitored start button
- Short circuit monitoring to detect short circuits between the connecting cables and to shut down the outputs or prevent relay starting if necessary
- Earth fault/ground fault monitoring to detect short circuits between the connecting cables and earth or ground and to shut down the outputs or prevent relay starting if necessary.

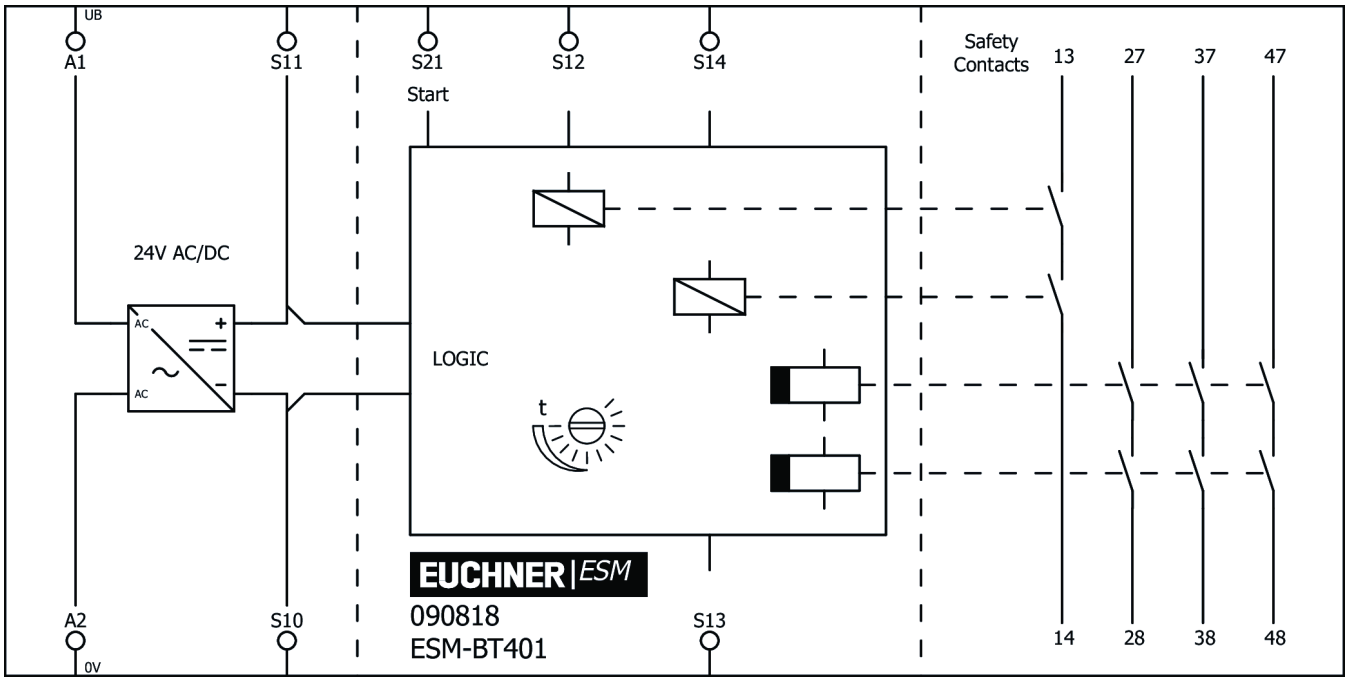
Time-delayed shutdown

The release time for the time-delay contacts can be set as required using a potentiometer on the safety relay.

Dimensional drawings



Connection examples



Technical data

Approvals

Operating and display elements

LED display	4 status displays (green) for relays K1, K2, K3, K4

Electrical connection values

Drop-out delay at 24 V AC/ DC	max. 20 ms Emergency stop
Power consumption	
at 24 V DC	4.7 W
Power consumption (apparent power)	
at 24 V AC	5.3 VA
Connection cross section	0.14 … 2.5 mm² (Connection terminals (size))
Rated insulation voltage U_i	250 V
Rated supply frequency	50 … 60 Hz
Rated impulse voltage U_{imp}	4 kV
Operating voltage	
AC/DC	24 V −10% … +10% (All the electrical connections must either be isolated from the mains supply by a safety transformer according to EN 61558-2-6 with limited output voltage in the event of a fault, or by other equivalent insulation measures.)
Test voltage	
Control system/contacts	2.5 kV
Control voltage	
on S11	18.6 … 26 V
Control current	190 mA
Reverse polarity protection	
On version U_B = 24 V DC	Yes