EUCHNER

Safety relays ESM-BT..

- ▶ **Usage 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 1, 2 or 3 contacts time-delayed**
- ▶ **Time-delay range between 1 s and 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
- ▶ Short circuit monitoring to detect short circuits between the connection cables and to shut down the outputs or prevent relay starting if necessary
- ▶ Earth fault/ground fault monitoring to detect short circuits between the connection cables and earth or ground and to shut down the outputs or prevent relay starting if necessary.
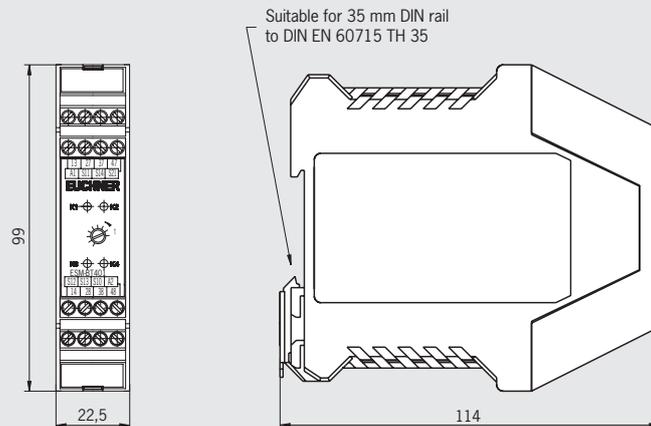
Time-delayed shutdown
The release time for the time-delay contacts can be set as required using a potentiometer on the safety relay.
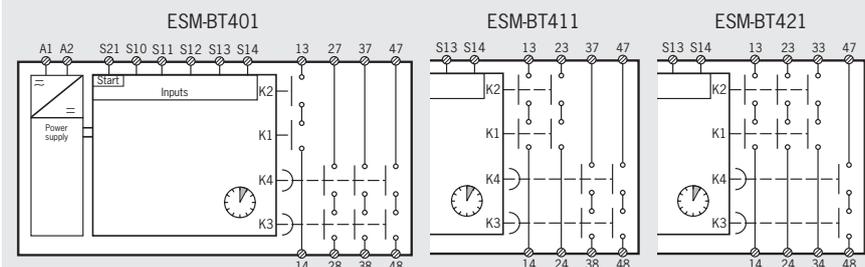
Safety relay ESM-BT..

| | | | | | | Cat. **4** | STOP **0** | STOP **1** |

Dimension drawing

Suitable for 35 mm DIN rail to DIN EN 60715 TH 35

99
22,5
114

Block diagram

ESM-BT401 ESM-BT411 ESM-BT421

Technical data outputs

Parameter	Value		
Min. switching current at DC 24 V	5 mA		
Switching voltage max.	DC 50 V / AC 250 V		
Utilization category * According to EN 60947-5-1	U_e	I_e	$\Sigma\, I_e$
	AC-12	250 V	8 A
	AC-15	250 V	3 A
	DC-12	50 V	8 A
	DC-13	24 V	3 A

(AC-12 / AC-15 / DC-12 / DC-13 rows share $\Sigma\, I_e$ = 15 A)

U_e = switching voltage

I_e = max. switching current per contact

$\Sigma\, I_e$ = max. switching current on all safety contacts (cumulative current)

* See page 26 for information about the utilization category

Ordering table

Series	Version	Outputs	AC/DC 24 V
ESM	BT Safety relay	**401** 1 NO non-time-delay 3 NO time-delay	**090818** ESM-BT401
		411 2 NO non-time-delay 2 NO time-delay	**090819** ESM-BT411
		421 3 NO non-time-delay 1 NO time-delay	**090820** ESM-BT421

Subject to technical modifications; no responsibility is accepted for the accuracy of this information.