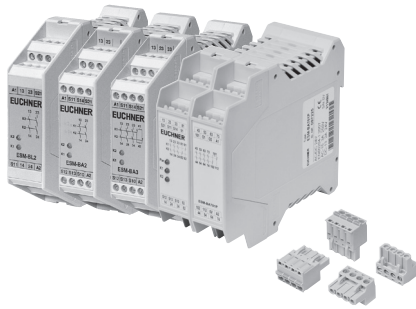


Safety relays ESM-BL.. and ESM-BA..



- ▶ ESM-BL.. Usage up to category 3 according to EN ISO 13849-1
- ▶ ESM-BA.. Usage up to category 4 according to EN ISO 13849-1
- ▶ LED status indicators
- ▶ 1-channel or 2-channel control
- ▶ Up to 7 redundant safety contacts
- ▶ Auxiliary contact (signaling contact) optional
- ▶ Short circuit and earth fault/ground fault monitoring optional



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 or a start button
- ▶ Monitoring of downstream relays or contactors

On the series **ESM-BA..** safety relays, by using suitable wiring it is also possible to select:

- ▶ 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.

Auxiliary contacts

The relays in the series ESM-BA3.. and ESM-BA7... are available with electrically separate normally closed contacts and auxiliary contacts.

Connection terminals

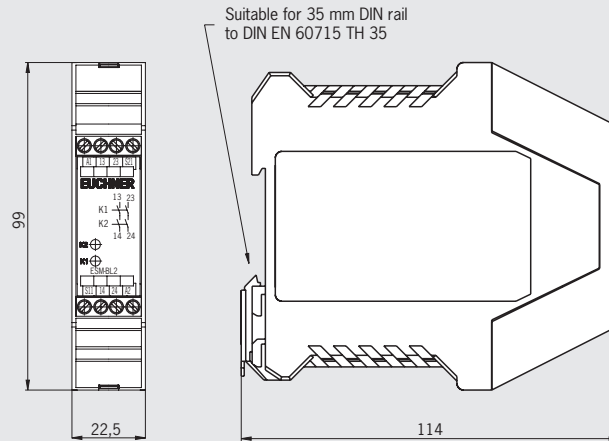
Optionally the ESM-BA... devices are also available as version with plug-in connection terminals.

Safety relay ESM-BL..

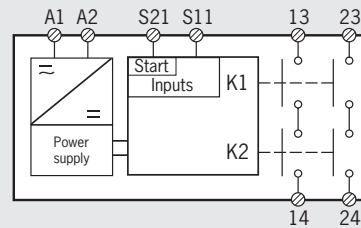


Cat. 3 STOP 0

Dimension drawing



Block diagram



Technical data outputs

Parameter	Value		
Min. switching current at DC 24 V	20 mA		
Switching voltage max.	DC 24 V / AC 250 V		
Utilization category * According to EN 60947-5-1	U_e	I_e	Σ I_e
	AC-12	250 V	6 A
	AC-15	230 V	4 A
	DC-12	24 V	1.25 A
	DC-13	24 V	2 A

U_e = switching voltage

I_e = max. switching current per contact

Σ 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	AC 115 V	AC 230 V
ESM	BL Safety relay	2 2 NO	085607 ESM-BL201	085608 ESM-BL202	085609 ESM-BL203