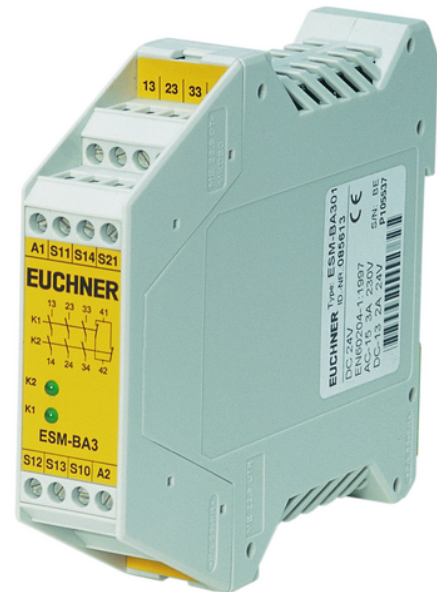


## ESM-BA301 (Order no. 085613)

### Base unit ESM-BA3.., 3 safety contacts, 1 auxiliary contact, Cat. 4

- ▶ ESM-BA.. Use up to category 4 according to EN ISO 13849-1
- ▶ LED status indicators
- ▶ 1-channel or 2-channel control
- ▶ 3 redundant safety contacts
- ▶ 1 auxiliary contact (monitoring contact)
- ▶ 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 or a 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.

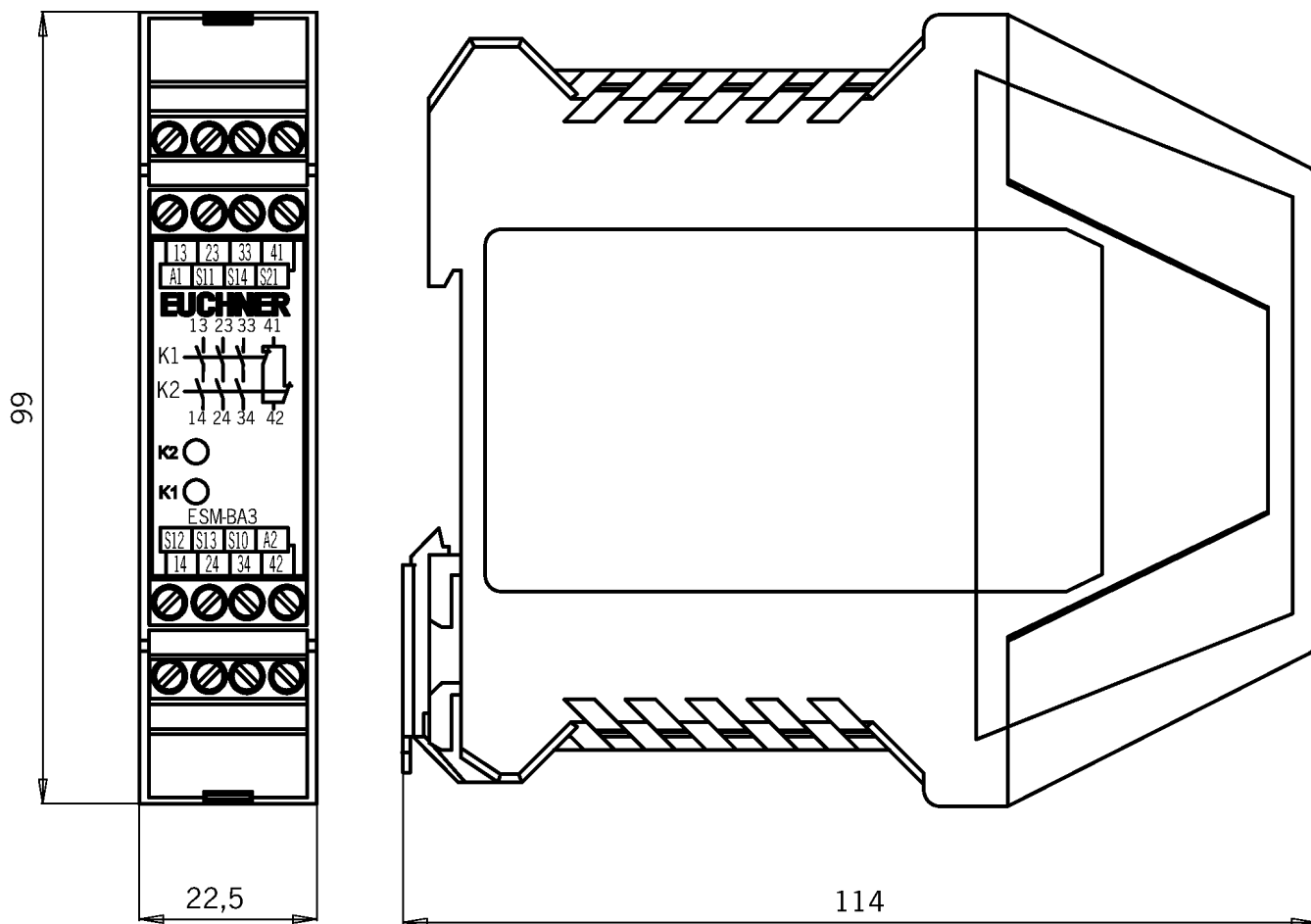
### Auxiliary contacts

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

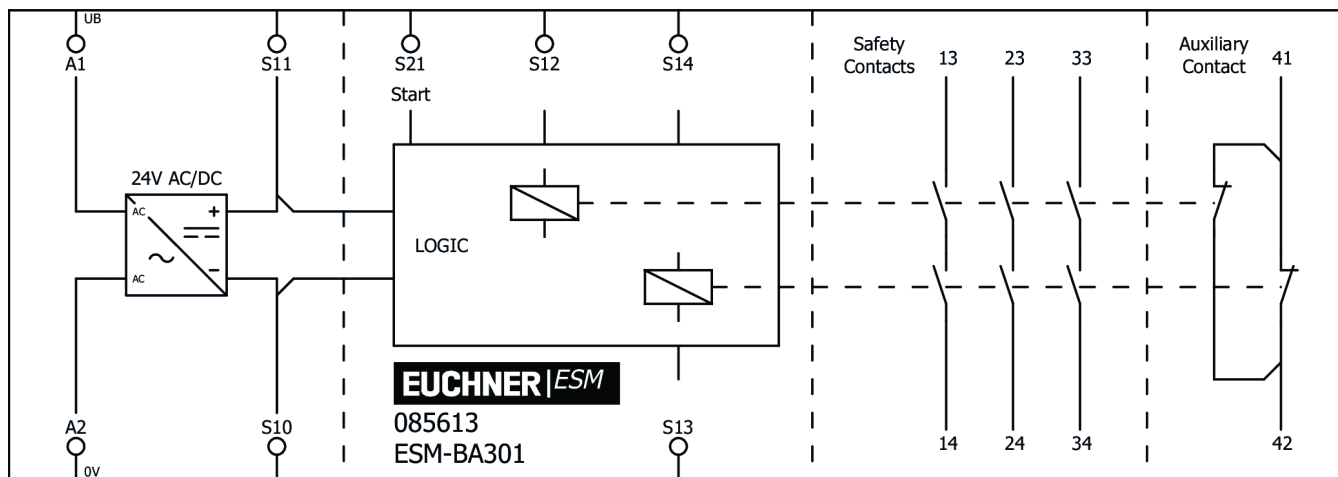
### Connection terminals

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

## Dimensional drawings



## Connection examples



## Technical data

### Approvals

Zulassung EAC Zulassung TÜV Rheinland, BMPB mit ZG: Product Safety, Functional Safety Zulassung c\_UL\_us LISTED

### Mechanical values and environment

Housing material

Housing Polyamide PA6.6

Weight

Net 0,23 kg

Ambient temperature

-15 ... 40 °C

(If several ESM-BA3.. devices are closely spaced under load, the max. cumulative current at the ambient temperature of T=20°C is 9A; at T=30°C is 3A; at T=40°C is 1A. If these currents are exceeded, a spacing of 5mm between the devices must be observed.)

Degree of protection

IP20

Mechanical life

operating cycles 10 x 10<sup>6</sup>

Contact material

AgSnO<sub>2</sub>

Mounting method

Mounting rail 35mm according to DIN EN 60715 TH35

Connection

Connection terminals

Length of control cable

With conductor cross-section 0.75mm<sup>2</sup> 1000 m

**Safety contacts 13/14, 23/24, 33/34**

Number of safety contacts

3

**Auxiliary contacts 41/42**

Number of auxiliary contacts

1

### Electrical connection ratings

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 isolation measures.)