

# ESM-BA301P (Order no. 097230)

## 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
- ▶ plug-in connection terminals



## 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.

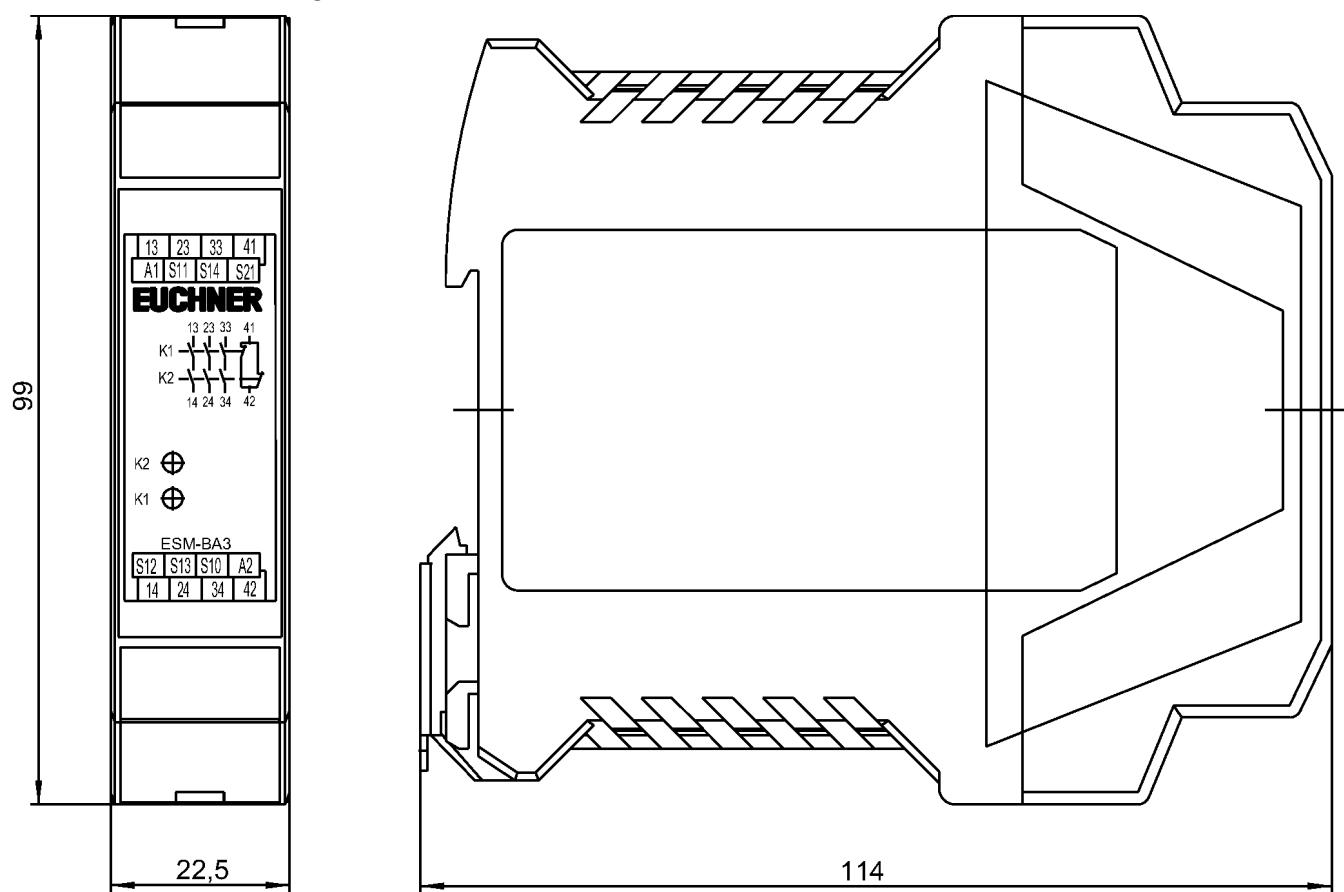
## Auxiliary contacts

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

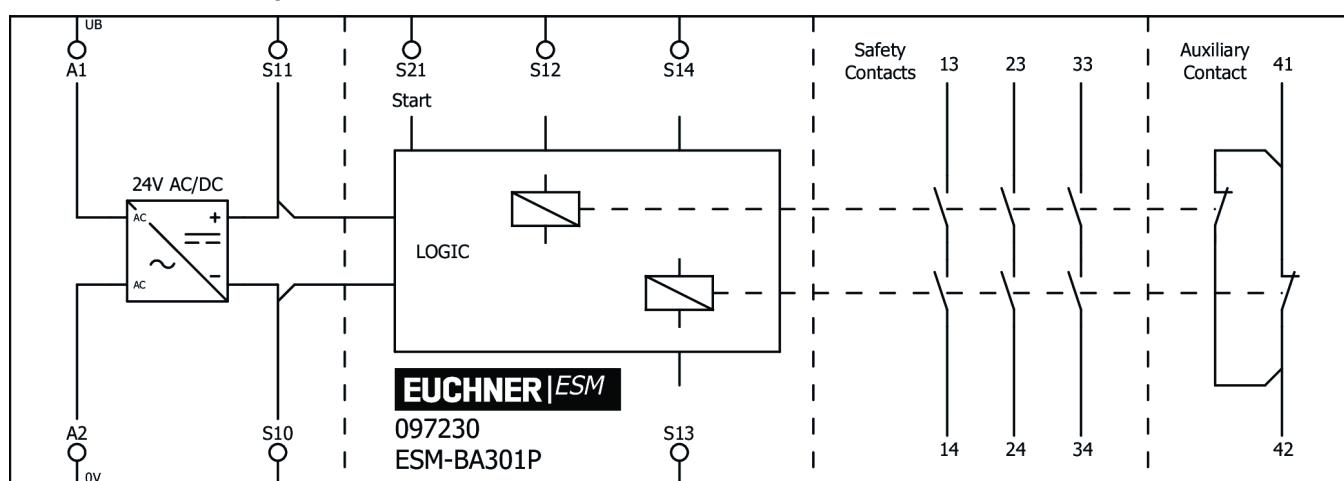
### Important:

Depending on the device in question, a connection kit will be required.

## 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     $10 \times 10^6$

Contact material

AgSnO<sub>2</sub>

Mounting method

Mounting rail 35mm according to DIN EN 60715 TH35

Connection

Plug-in 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.)