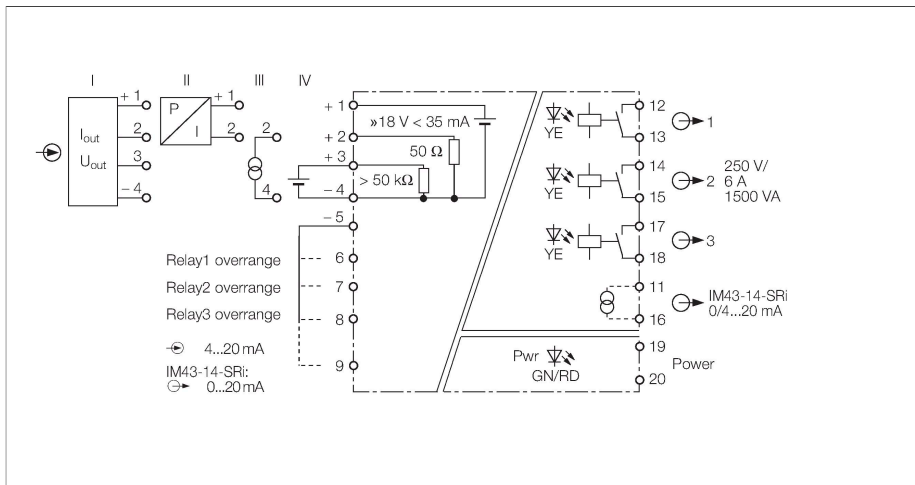


# IM43-13-SR

## Trip amplifier – 1-channel



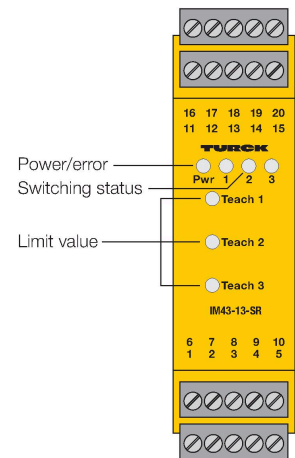
The 1-channel IM43-13-SR trip amplifier monitors 0/4...20 mA currents or 0/2...10 V voltages for overshoot and undershoot of limit values.

The three limit values are set via teach buttons at the front.

Additionally, 18 V (with max. 35 mA) are provided for transmitters or sensors.

The green LED indicates operational readiness. Three yellow LEDs indicate the switching status of the corresponding output.

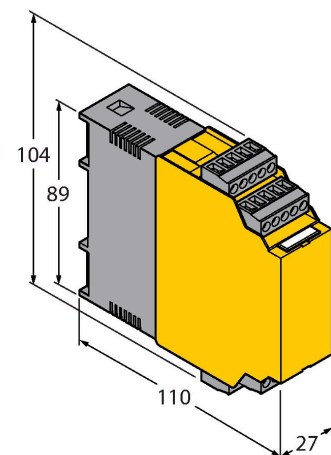
The output mode is adjusted via bridges at the terminals 5...8.



### Features

- Monitors 3 limit values at a current or voltage input
- Power supply of 2-wire or 3-wire transmitters/sensors
- Input circuit: 0/4...20 mA; 0/2...10 V
- Output circuit: 3 independent limit value relays
- Limit value relay adjusted via TEACH button
- Relay outputs adjusted via buttons on the front
- Universal operating voltage
- Complete galvanic isolation
- Input reverse-polarity protected
- $c_{FM_{US}}$  TR CU

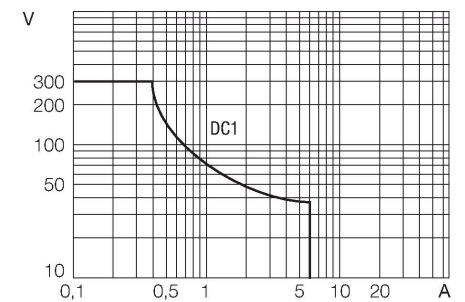
### Dimensions



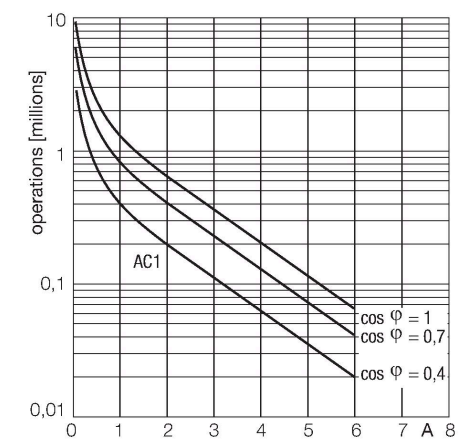
## Technical data

|                                  |   |
|----------------------------------|---|
| Type                             | IM43-13-SR  |
| ID                               | 7540041   |
| Nominal voltage                  | Universal voltage supply unit   |
| Operating voltage                | 20...250 VAC  |
| Frequency                        | 40...70 Hz  |
| Operating voltage                | 20...250 VDC  |
| Power consumption                | ≤ 5 W   |
| Transmitter connection           |   |
| Supply voltage                   | ≥ 17 V / 20 mA  |
| Current                          | 35 mA   |
| Voltage input                    | 0/2...10 VDC  |
| Input resistance (voltage)       | ≥ 50 kΩ   |
| Input current                    | 0/4...20 mA   |
| Input resistance (current)       | ≤ 50 Ω  |
| Output circuits (digital)        | 3 x relays (NO)   |
| Output switching voltage relay   | ≤ 30 VDC / ≤ 250 VAC  |
| Switching current per output     | ≤ 6 A   |
| Switching capacity per output    | ≤ 1500 VA   |
| Switching frequency              | ≤ 10 Hz   |
| Reference temperature            | 23 °C   |
| Temperature drift                | ≤ 0.00075 % of full scale/K   |
| Galvanic isolation               |   |
| Test voltage                     | 2.5 kV RMS  |
| Indication                       |   |
| Power on display                 | Green   |
| Switching state                  | Yellow  |
| Error indication                 | red   |
| Protection class                 | IP20  |
| Flammability class acc. to UL 94 | V-0   |
| Ambient temperature (min.)       | -25   |
| Ambient temperature (max.)       | 70  |
| Storage temperature              | -40...+80 °C  |
| Dimensions                       | 104 x 27 x 110 mm   |
| Weight                           | 175 g   |
| Mounting instructions            | DIN rail (NS35) or panel  |
| Housing material                 | Polycarbonate/ABS   |
| Electrical connection            | 4 x 5-pin removable terminal blocks, reverse polarity protected, screw terminal |
| Terminal cross-section           | 1 x 2.5 mm <sup>2</sup> / 2 x 1.5 mm <sup>2</sup>                               |
| Tightening torque                | 0.5 Nm  |

### Output relay – Load curve



### Output relay – Electrical lifetime



Accessories

|                 |         |
|-----------------|---------|
| IM-CC-5X2BK/2BK | 7541219 |
|-----------------|---------|

Cage clamp terminals for IM modules ( Ex-devices with 27 mm overall width); includes: 4 pcs. of 5-pin black terminals

Accessories

| Dimension drawing | Type        | ID      |
|-------------------|-------------|---------|
|                   | IM-SC-5X4BK | 7541217 |