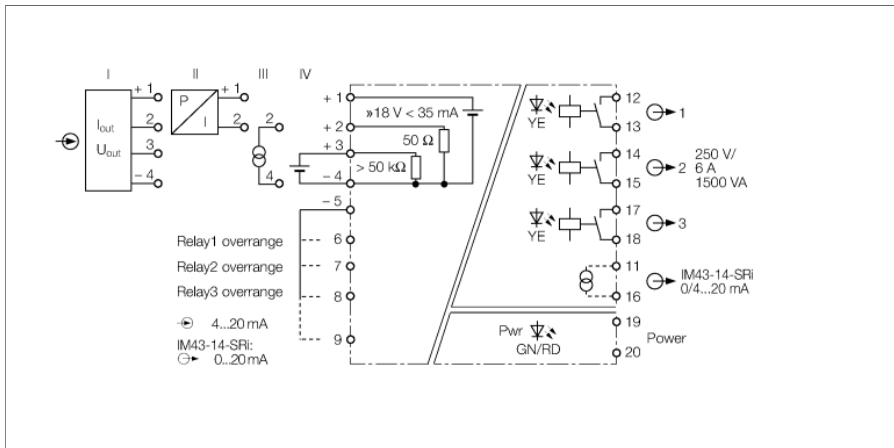


Trip amplifier 1-channel IM43-14-SRI



The 1-channel IM43-14-SRI 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.

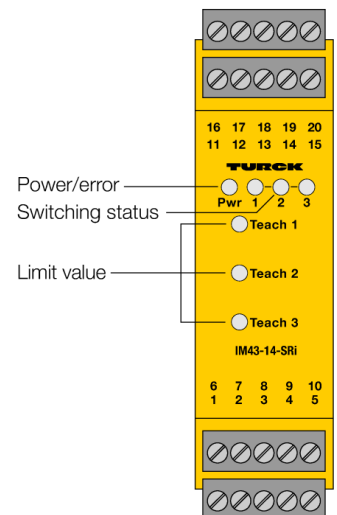
Additionally 18 V (at max. 35 mA) are provided for transmitters or sensors.

The measured values are transmitted via a galvanically isolated analog output to other devices.

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

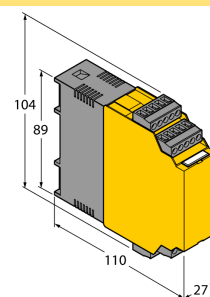
The output mode is adjusted via bridges at the terminals 5...8.

Live-zero signals are converted into dead-zero through bridging terminals 5/9. In live-zero mode the range between 4...20 mA is monitored. Any state outside this range (< 3.6 mA or > 24 mA) is signalled with an error message. In this case the power LED will illuminate red, the relays drop off and a fault current of > 22 mA is output. If a faulty transmitter causes a short circuit, the relays drop off and a fault current of > 22 mA is output.

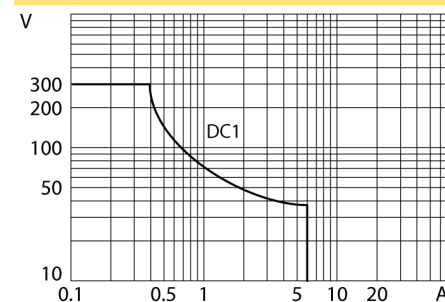


- Monitors 3 limit values at a current or voltage input
- Power supply of 2-wire or 3-wire transmitters/sensors
- Input circuit: 0/4...20 mA; 0/2...10 V
- Output circuit: 0/4...20 mA, 3 independent limit value relays
- Limit value relay adjusted via TEACH button
- Relay outputs adjusted via buttons on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

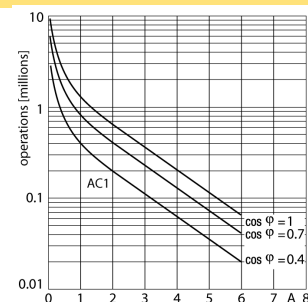
Dimensions



Output relay – Load curve



Output relay – Electrical lifetime



Type	IM43-14-SRI
ID	7540043
Nominal voltage	Universal voltage supply unit
Operating voltage	20...250 VAC
Frequency	40...70 Hz
Operating voltage U_s	20...250 VDC
Power consumption	$\leq 5 \text{ W}$

Transmitter connection	
Supply voltage	17 V/20 mA typ.
Current	35 mA
Voltage input	0/2...10 VDC
Input resistance (voltage)	$\geq 50 \text{ k}\Omega$
Input current	0/4...20 mA
Input resistance (current)	$\leq 50 \Omega$

Output circuits	
Output current	0/4...20 mA
Load resistance current output	$\leq 0.6 \text{ k}\Omega$
Output circuits (digital)	3 x relays (NO)
Output switching voltage relay	$\leq 30 \text{ VDC} / \leq 250 \text{ VAC}$
Switching current per output	$\leq 6 \text{ A}$
Switching capacity per output	$\leq 1500 \text{ VA}$
Switching frequency	$\leq 10 \text{ Hz}$

Response characteristic	
Measuring accuracy (including linearity, hysteresis and repeatability)	$\leq 0.1 \text{ \% of full scale}$
Reference temperature	23 °C
Temperature drift	$\leq 0.00075 \text{ \% of full scale/K}$

Galvanic isolation	
Test voltage	2.5 kV RMS

Displays/Operating elements	
Operational readiness	Green
Switching state	Yellow
Error indication	red

Mechanical data	
Protection class	IP20
Flammability class acc. to UL 94	V-0
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Dimensions	104 x 27 x 110 mm
Weight	172 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Plastic, Polycarbonate/ABS
Electrical connection	4 x 5-pin removable terminal blocks, reverse polarity protected, screw terminal
Terminal cross-section	1 x 2.5 mm ² /2 x 1.5 mm ²
Tightening torque	0.5 Nm

Accessories

Type code	Ident no.		Dimension drawing
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	