

## Limit Value Monitor IM43-13-R IM43-14-Ri 1-channel

- **1-channel limit value monitor with removable terminal blocks**
- **Input either via current input 0/4...20 mA or voltage input 0/2...10 V**
- **Supply of a two-wire or three-wire transmitter/sensor**
- **Limit value adjustment via coded rotary switch**
- **Three relay outputs, each with one normally open output**
- **Sealed relay with hard gold contacts**
- **Current output of 0/4...20 mA. (IM43-14-Ri only)**
- **Universal operating voltage (20...250 VUC)**

The limit value monitors IM43-13R and IM43-14-Ri are single-channel devices and alternatively monitor measuring currents of 0/4...20 mA or measuring voltages of 0/2...10 V.

The three limit values are set via the side coded rotary switches.

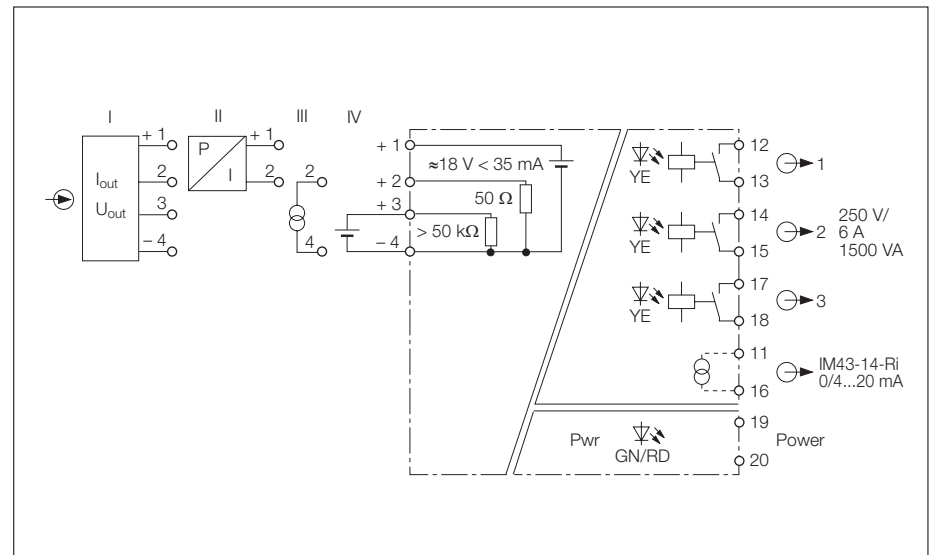
In addition, a voltage of approx. 18 V (at 35 mA max.) is provided, which can be used to power transmitters or sensors.

A green LED indicates that the device is powered. Three yellow LEDs indicate the switching status of the respective output.

The output mode and hysteresis are adjusted via DIP switches.

The type IM43-14-Ri is equipped with the following additional functions:

- For transfer to other devices there is a galvanically isolated analogue current output of 0/4...20 mA.
- The conversion of live-zero into dead-zero signals and vice-versa is selected via DIP switches. In the live zero mode the range of 4...20 mA is monitored. Outside this range (< 3,6 mA bzw. > 24 mA) an error indication is given. In this case the Power LED will illuminate red, the relays are de-energised and an error current of 0 or > 22 mA is output.
- If a faulty transmitter causes a short-circuit, the relays are de-energised and an error current of 0 or > 22 mA is output.



## Limit Value Monitor IM43-13-R/IM43-14-Ri

Type	IM43-13-R	IM43-14-Ri
Ident-no.	7540040	7540042
<b>Supply voltage</b> $U_B$	20...250 VUC	20...250 VUC
Line frequency (AC)	40...70 Hz	40...70 Hz
Power consumption	≤ 4.8 W	≤ 4.8 W
<b>Clearances and creepages</b>		
Input circuit to output circuit	≥ 3 mm	≥ 3 mm
– output circuit to supply	≥ 3 mm	≥ 3 mm
– input circuit to supply	≥ 3 mm	≥ 3 mm
– test voltage	2 kV	2 kV
<b>Input circuit</b>		
current and voltage input	current and voltage input	current and voltage input
Current input		
– Input resistance	< 50 Ω	< 50 Ω
– Operating values	0/4...20 mA (overload protected up to 24 mA)	0/4...20 mA (overload protected up to 24 mA)
Voltage input		
– Input resistance	> 50 kΩ	> 50 kΩ
– Operating values	0/2...10 V (overload protected up to 20 V)	0/2...10 V (overload protected up to 20 V)
– Hysteresis (adjustable)	1; 2,5; 5; 10 %	1; 2,5; 5; 10 %
Ambient temperature sensitivity	75 ppm/K	75 ppm/K
<b>Output circuit</b>		
Relay output	three relay outputs	three relay outputs
– Contact configuration	1 normally open contact	1 normally open contact
– Switching voltage	≤ 250 VAC	≤ 250 VAC
– Switching current	≤ 6 A	≤ 6 A
– Switching capacity	≤ 1500 VA	≤ 1500 VA
Current output	–	0/4...20 mA
<b>LED indications</b>		
– Power/error (2-colour LED)	Power ON: green – Error: red	Power ON: green – Error: red
– Switching status	yellow	yellow
<b>Housing</b>		
Mounting	20 poles, 27 mm wide, Polycarbonatet/ABS, flammability class V-0 per UL94	
Connection	snap-on hat rail (DIN 50022) or panel screw mounting	
Connection profile	removable terminal blocks, polarity protected screw connection, self-lifting	
Degree of protection (IEC 60529/EN 60529)	≤ 1 x 2.5 mm <sup>2</sup> , 2 x 1.5 mm <sup>2</sup> or 2 x 1.0 mm <sup>2</sup> with wire sleeves	
Operating temperature	IP20	
	-25...+70 °C	

