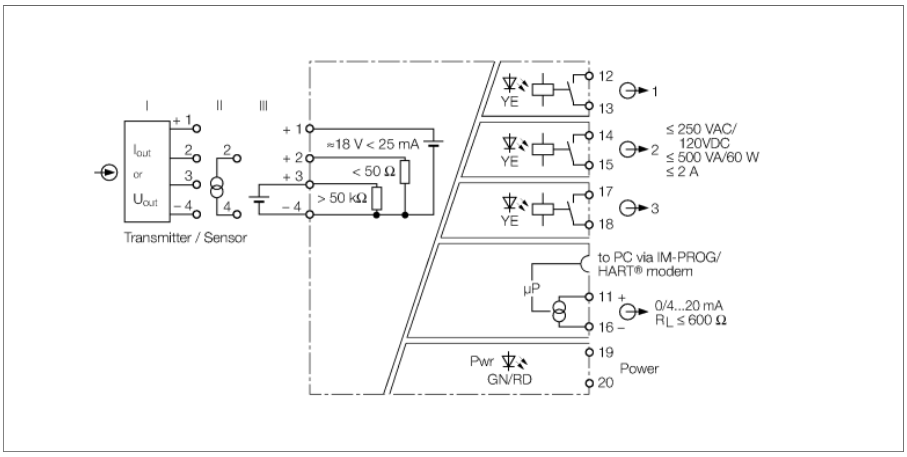
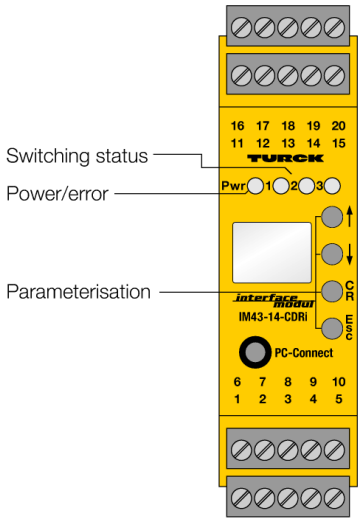
Isolating transducer
1-channel
IM43-14-CDRI





The 1-channel IM43-14-CDRI isolating transducer is designed to operate 2-wire transducers (III) and to galvanically isolate and transmit the measured signals. Alternatively, active 2-wire transmitters (II) and passive 3-wire transmitters (I) can also be operated.

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

The device is equipped with an analog output of 0/4…20 mA; In addition, three relay outputs for limit values are available. The unit of the measured value is freely selectable and indicated on a 2-line display. A green LED indicates operational readiness, 3 yellow LEDs indicate the switching status of the individual channels.

At each of the three outputs a predefined setpoint value can be monitored according to overshoot/undershoot. The switching hysteresis is defined by programming the switch-on and switch-off point. Furthermore, a switch-off delay can be set individually for each output.

The measured value is permanently written to a ring buffer with space for 8000 values. The writing process is stopped with a predefined trigger event, like for example "excess of limit value". After that, the stored signal sequence can be read out.

The device can be parametrized and configured via PC (FDT / DTM). For this, connect the device to the PC via the 3.5 mm jack on the front (the matching transmission cable IM-PROG III can be ordered separately from TURCK). In addition, a basic scope of parameters can be set via buttons and display on the front as well as via the HART®capable power interface

- Input circuit: 0/4…20 mA; 0/2…10 V
- Output circuit: 0/4…20 mA, 3 independent limit value relays
- Universal operating voltage
- Monitors over and underrange of analog values and window limits
- Connection of passive 2-wire and active 3-wire transmitters
- Parameterized via PC (FDT / DTM), front-panel switch and HART®
- Many diagnostic functions
- Ring buffer for up to 8000 measured values
- Display
- Complete galvanic isolation
- Input reverse-polarity protected
- TR CU

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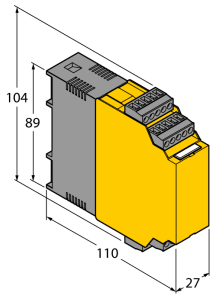
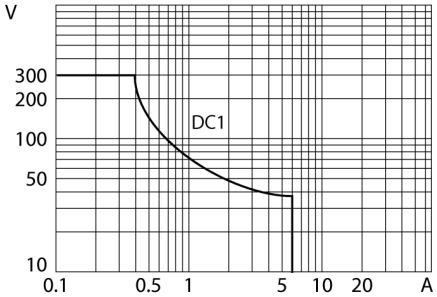
Type	IM43-14-CDRI
ID	7540045
Nominal voltage	Universal voltage supply unit
Operating voltage	20…250 VAC
Frequency	40…70 Hz
Operating voltage U_B	20…250 VDC
Power consumption	≤ 3 W
Power dissipation, typical	≤ 1.7 W
Residual ripple	≤ 10 mV_{ss}
Transmitter connection	
Supply voltage	17 V/20 mA typ.
Current	25 mA
Voltage input	0/2…10 VDC
Input current	0/4…20 mA
Output circuits	
Output current	0/4…20 mA
Fault current	0 / 22 mA adjustable
Output circuits (digital)	3 x relays (NO)
Output switching voltage relay	≤ 30 VDC / ≤ 250 VAC
Switching current per output	≤ 2 A
Switching capacity per output	≤ 500 VA/60 W
Switching frequency	≤ 10 Hz
Response characteristic	
Measuring accuracy (including linearity, hysteresis and repeatability)	≤ 0.05 % of full scale
Reference temperature	23 °C
Temperature drift analog output	0.0025 %/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	245 g
Mounting instructions	DIN rail (NS35) or panel
Housing material	Plastic, Polycarbonate/ABS
Electrical connection	4 × 5-pin removable terminal blocks, reverse polarity protected, screw terminal
Terminal cross-section	1 × 2.5 mm²/2 × 1.5 mm²
Tightening torque	0.5 Nm

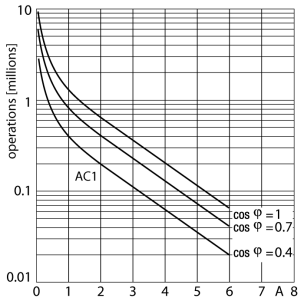
Dimensions



Output relay – Load curve



Output relay – Electrical lifetime



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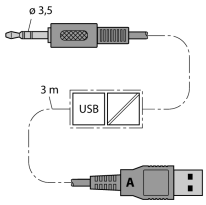
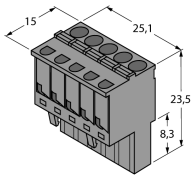
Accessories

Type code	Ident no.		Dimension drawing
IM-PROG III	7525111	USB-compatible programming adapter for the FDT/DTM-based parametrization of HART-capable Turck devices; galvanic separation between the device to be parametrized and the PC	
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	

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