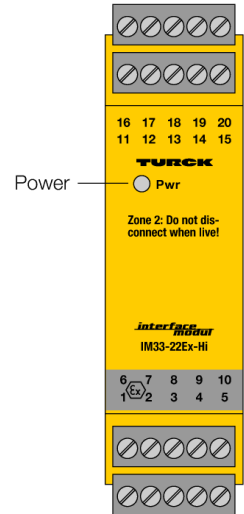
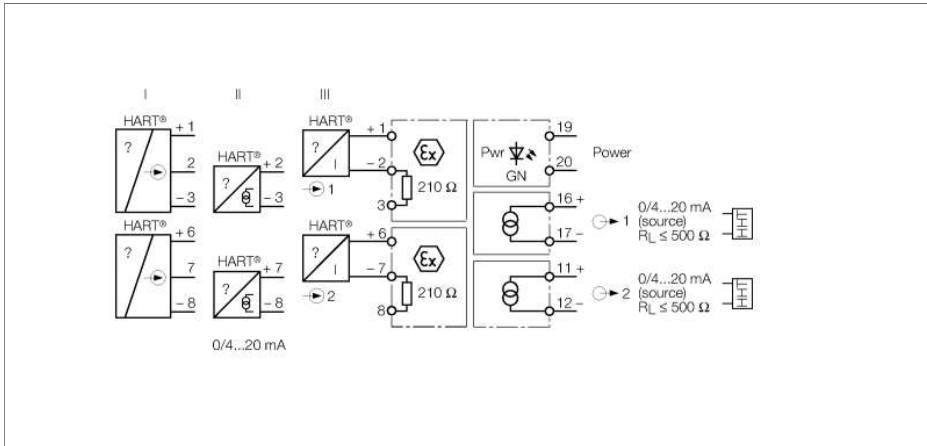


**HART® isolating transducer
2-channel
IM33-22EX-HI**



The 2-channel HART® isolating transducer IM33-22EX-HI is designed to operate intrinsically safe HART® 2-wire transducers (III) in the Ex area and to transfer the measured signals to the non-Ex area. In addition to analog signals, the isolating transducer also transfers digital HART® communication signals bidirectionally.

Alternatively, active 2-wire HART® transmitters (II) and passive 3-wire HART® transmitters (I) can be operated.

The device features 0/4...20 mA input and output circuits. The green LED indicates operational readiness.

The input signals are transferred 1:1 without attenuation to the outputs in the non-Ex area.

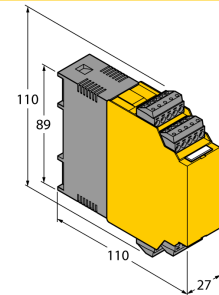
Due to the 1:1 transmission characteristic, wire-break or short-circuit of the measuring transducer circuit are indicated as currents of 0 mA resp. > 22.5 mA.

The removable terminal blocks feature test sockets (Ø 2 mm) for connection of a HART® handheld. Further devices with different Ex-criteria are available on request.

- Intrinsically safe input circuits EEx ia
- Application area acc. to ATEX: II 3 GD
- Installation in zone 2
- Power supply of 2-wire measuring transducers via HART® communication as well as connection to active 2-wire and passive 3-wire transmitters
- Input circuits: 0/4...20 mA
- Output circuits: 0/4...20 mA
- Universal operating voltage
- Removable terminal blocks
- Complete galvanic separation

HART® isolating transducer
2-channel
IM33-22EX-HI

Dimensions



Type code	IM33-22EX-HI	
Ident no.	7506445	
Nominal voltage	Universal voltage supply unit	
Operating voltage	20...250 VAC	
Frequency	40...70 Hz	
Operating voltage range	20...125 VDC	
Power consumption	≤ 3 W	
Transmitter connection		
Supply voltage	≥ 17 V	
Current	25 mA	
Current input	0/4...20 mA	
Input resistance (current)	250 Ω	
Output circuits		
Output current	0/4...20 mA	
Load resistance current output	≤ 0.5 kΩ	
Limit frequency	≤ 30 Hz	
Rise time (10-90%)	≤ 50 ms	
Dropout time (90...10%)	≤ 50 ms	
Measuring accuracy	≤ 0.1 % of full scale	
Reference temperature	23 °C	
Temperature drift	≤ 0.005 % / K	
Galvanic separation		
Test voltage	2.5 kV	
Ex approval acc. to conformity certificate	TÜV 05 ATEX 2910	
Application area	II (1) GD	
Protection type	[EEx ia] IIC	
Max. output voltage U _o	≤ 21.3 V	
Max. output current I _o	≤ 86 mA	
Max. output power P _o	≤ 675 mW	
Rated voltage	250 V	
Characteristic	Trapezoidal	
External inductance/capacitance L _e /C _e		
	EEx ia IIC	EEx ia IIB
L _e [mH]	0,47	10
C _e [μF]	0,093	0,45
Ex approval acc. to conformity certificate	TÜV 06 ATEX 2967 X	
Application area	II 3 G	
Protection class for belonging equipment	Ex [nL] nA IIC T4	
Max. output voltage U _o	≤ 21.3 V	
Max. output current I _o	≤ 92 mA	
Max. output power P _o	≤ 675 mW	
Characteristic	trapezoidal	
Internal inductance/capacitance L _i /C _i	L _i = 75 μH, C _i negligibly small	
External inductance/capacitance L _e /C _e		
	Ex nL IIC	Ex nL IIB
L _e [mH]	4,5	10
C _e [nF]	157	890
MTTF	60 years acc. to SN 29500 (Ed. 99) 40 °C	
Indication		
Operational readiness	green	

**HART® isolating transducer
2-channel
IM33-22EX-HI**

Protection class	IP20
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80 °C
Dimensions	110x 27x 110 mm
Weight	219 g
Mounting instruction	For mounting on DIN rail or mounting panel
Housing material	Polycarbonate/ABS
Electrical connection	4 x 5-pole removable terminal blocks with test socket, reverse polarity protected, screw connection
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.	Description	Dimension drawing
IM-CC-5X2BU/2BK	7504031	Cage clamp terminals for IM modules (Ex devices; width 27 mm); 2 blue/2 black, 5-pin	