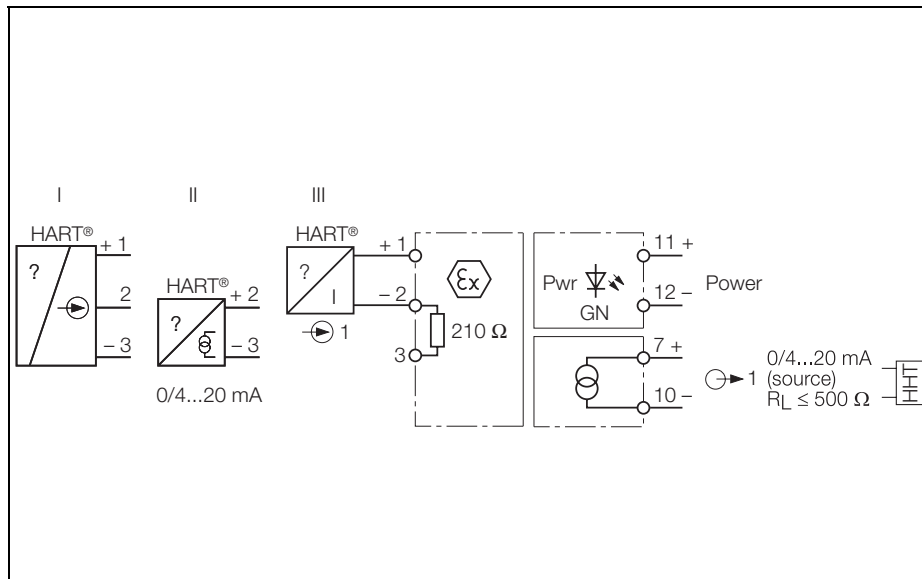


HART® isolating transducers

1-channel

IM33-11EX-HI/24VDC



The 1-channel HART® isolating transducer IM33-11EX-HI/24VDC is used to energize intrinsically safe 2-wire HART® transducers (III) in the Ex area and to transmit the measuring signal to the safe area. In addition to the analog signals, digital HART®communication signals can be transferred bidirectionally.

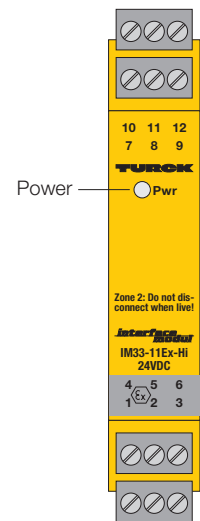
Further it is possible to connect passive 2-wire (II) and active 3-wire (I) HART® transmitters.

The device features one input and one output circuit, each with 0/4...20 mA . A green LED indicates operational readiness.

Input circuit, output circuit and supply voltage are each galvanically isolated. The input signal is transmitted 1:1 without attenuation to the output in the safe area.

Due to the 1:1 transmission characteristic, wire-break or short-circuit conditions in the transducer circuit are indicated by an output current of 0 mA or > 22,5 mA respectively.

Further devices with other I.S. data are available on request. The removable terminal blocks are equipped with test sockets (Ø 2 mm) for connection of a HART® handheld

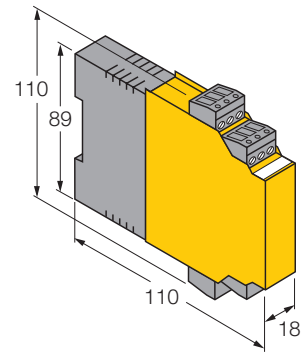


- **Intrinsically safe input circuits EEx ia**
- **Application area according to ATEX : II (1) GD**
- **connection of measuring transducers in 2-wire technology with HART®communication and for connection to active 2-wire and passive 3-wire transmitters**
- **Input circuit: 0/4...20 mA**
- **Output circuit: 0/4...20 mA**
- **galvanic isolation between input circuits and output circuits and supply voltage**
- **removable terminal blocks, with screwable 2mm test socket**
- **Galvanic isolation of input circuits, output circuits and supply voltage**

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IM33-11EX-HI/24VDC

Type	IM33-11EX-HI/24VDC									
Ident-No.	7506440									
Nominal voltage	24 VDC									
Operational voltage range:	19 ... 29 VDC									
Power consumption	≤ 2.2 W									
Transmitter connection										
Supply voltage	17 VDC									
Current	0...22 mA									
Current input										
Current input	0/4...20 mA									
Input resistance	250 Ω									
Output current	0/4...20 mA									
Load	≤ 500 Ω									
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									
Linearity deviation	≤ 0.1 % of full scale									
Drift	< 0.1 % /annually									
Effect of load impedance	< 0.02 % of full scale									
Effect of supply voltage	< 0.5 % of full scale									
Temperature drift	≤ 0.01 % / K									
Test voltage	2.5 kV									
Constant voltage supply	250 V									
Ex approval acc. to conformity certificate										
Ex approval acc. to conformity certificate	TÜV 00 ATEX 1595									
Application area	II (1) GD									
Protection type	[EEx ia] IIC									
Max.output voltage U_o	≤ 21.9 V									
Max. output current I_o	≤ 95 mA									
Max. output power P_o	≤ 747 mW									
Characteristic	trapezoidal									
Max. input voltage U_i	≤ 40 V									
Max. input power P_i	≤ 650 mW									
External inductance/capacitance L_o/C_o										
	<table border="1"> <thead> <tr> <th></th> <th>EEx ia IIC</th> <th>EEx ia IIB</th> </tr> </thead> <tbody> <tr> <td>Lo [mH]</td> <td>2.8</td> <td>14</td> </tr> <tr> <td>Co [μF]</td> <td>0,057</td> <td>0.295</td> </tr> </tbody> </table>		EEx ia IIC	EEx ia IIB	Lo [mH]	2.8	14	Co [μF]	0,057	0.295
	EEx ia IIC	EEx ia IIB								
Lo [mH]	2.8	14								
Co [μF]	0,057	0.295								
Ex approval acc. to conformity certificate	TÜV 06 ATEX 552977 X									
Application area	II 3 G									
Max. output current I_o	≤ 95 mA									
Max. input voltage U_i	≤ 40 V									
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Lo [mH]	3	10,0								
Co [μF]	0.12	0.81								
Ex approval acc. to conformity certificate	IS-1.102									
Ex approval acc. to conformity certificate	IECEx TUN 06.0009X									
Application area	[Ex ia] IIC/IIB , Ex nA [nL] //C/IIB T4									
Protection type	EEx nA nC [nL] IIC/IIB T4									
Indication										
Operational readiness	green									

Dimensions



HART® isolating transducers
1-channel
IM33-11EX-HI/24VDC

Degree of protection	IP20
Ambient temperature	-25 ...+ 60 °C
Housing length	110 mm
Housing width	18 mm
Housing height	110 mm
Weight	139 g
Mounting instruction	Mounting on DIN rail or mounting panel
Housing material	polycarbonate/ABS
Electrical connection	4 x 3-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