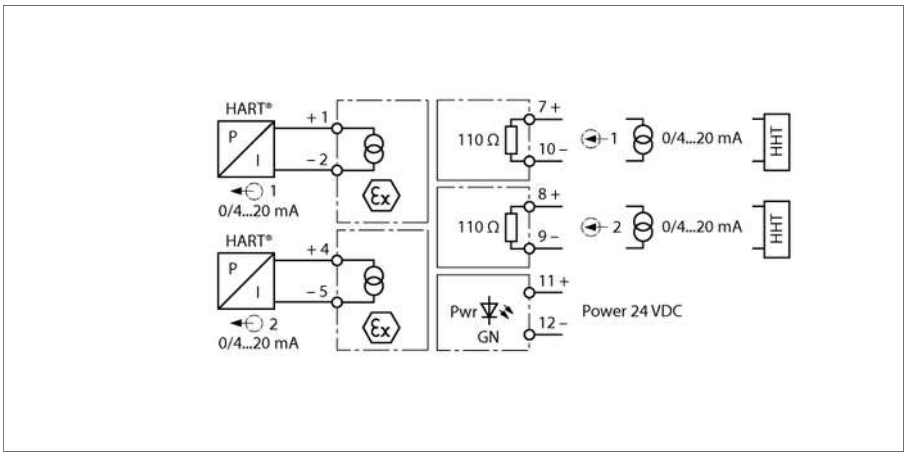
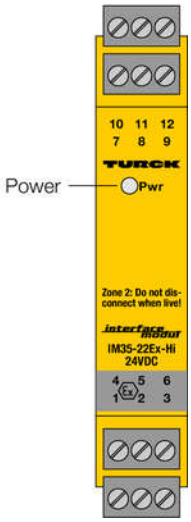
Analog signal isolator
2-channel
IM35-22EX-HI/24VDC





The 2-channel signal isolator IM35-22EX-HI/24VDC is designed to transmit the normalized current signal galvanically isolated 1:1 from the non-Ex area to the Ex-area. Besides the analog signals, digital HART® communication signals can also be transmitted bidirectionally.

Typical applications are for example, the control of I/P converters (at control valves for example) or indicators in the Ex-area.

The actuators are connected to the output terminals 1/2 and 4/5. Handheld terminals [HHT] can be connected to the output and input terminals 7/10 and 8/9.

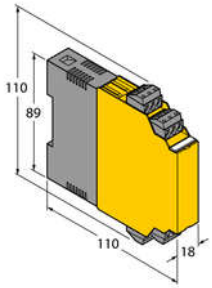
In addition, the removable terminal blocks are equipped with 2 mm test sockets for signal control.

- **ATEX, IECEx, UL, cFMus, TR CU**
- **Installation in zone 2**
- **Intelligent actuators supplied via HART® communication interface**
- **Input circuits: 0/4…20 mA**
- **Output circuits: 0/4…20 mA, intrinsically-safe**
- **SIL2**
- **Removable terminal blocks, screwable, with 2 mm test box**
- **Complete galvanic isolation**

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Analog signal isolator
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IM35-22EX-HI/24VDC

Dimensions



Type code	IM35-22EX-HI/24VDC
Ident no.	7506515
Nominal voltage	24 VDC
Operating voltage range	19…29 VDC
Power consumption	≤ 2.2 W
Current input	0/4...20 mA
Input resistance (current)	≤ 110 Ω
Output circuits	
Output current	0/4...20 mA
Load resistance, current output	≤ 0.6 kΩ
Rise time (10-90%)	≤ 90 ms
Dropout time (90…10%)	≤ 90 ms
Measuring accuracy	≤ 0.1 % of full scale
Reference temperature	23 °C
Temperature drift	≤ 0.005 % / K
Galvanic isolation	
Test voltage	4.0 kV
Important note	For safety applications the values specified in the safety manual or the relevant Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	TÜV 03 ATEX 2311
Application area	II (1) G, II (1) D
ignition protection category	[Ex ia Ga] IIC; [Ex ia Da] IIIC
Max. values:	Terminal connection: 1+2 / 4+5
Max. output voltage U_o	≤ 15.9 V
Max. output current I_o	≤ 60 mA
Max. output power P_o	≤ 470 mW
Internal resistance R_i	528 Ω
Characteristic	Trapezoidal
Internal inductance/capacitance L_i/C_i	Li=negligibly small; Ci=5nF
External inductance/capacitance L_o/C_o	

Ex ia	IIC		IIB	
Lo [mH]	5	0.5	10	0.5
Co [nF]	135	330	860	2200

Ex approval acc. to conformity certificate	TÜV 06 ATEX 553057 X
Application area	II 3 G
Protection type	Ex nA [ic Gc] IIC T4 Gc
Max. values:	Terminal connection: 1+2 / 4+5
Max.output voltage U_o	≤ 15.9 V
Max. output current I_o	≤ 60 mA
Max. output power P_o	≤ 470 mW
Internal resistance R_i	528 Ω
Characteristic	trapezoidal
Internal inductance/capacitance L_i/C_i	Li=negligibly small; Ci=5nF
External inductance/capacitance L_o/C_o	

Ex ic	IIC		IIB	
Lo [mH]	5	0.5	10	0.5
Co [nF]	290	640	1700	3900

Approval	SIL 2 acc. to EXIDA FMEDA
MTTF	162 years acc. to SN 29500 (Ed. 99) 40 °C
Indication	
Operational readiness	green

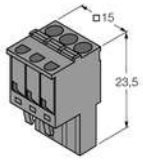
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Analog signal isolator
2-channel
IM35-22EX-HI/24VDC

IP Rating	IP20
Flammability class acc. to UL 94	V-0
Ambient temperature	-25 …+70 °C -25 ... +60 °C für UL, FM
Storage temperature	-40…+80°C
Dimensions	110 x 18 x 110 mm
Weight	163 g
Mounting instruction	for DIN rail / panel
Housing material	polycarbonate/ABS
Electrical connection	4 x 3-pin 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

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Accessories

Type code	Ident no.	Description	Design
IM-CC-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex-devices with 18 mm overall width); includes: 2 pcs. 3-pin blue terminals and 2 pcs. 3-pin black terminals.	

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