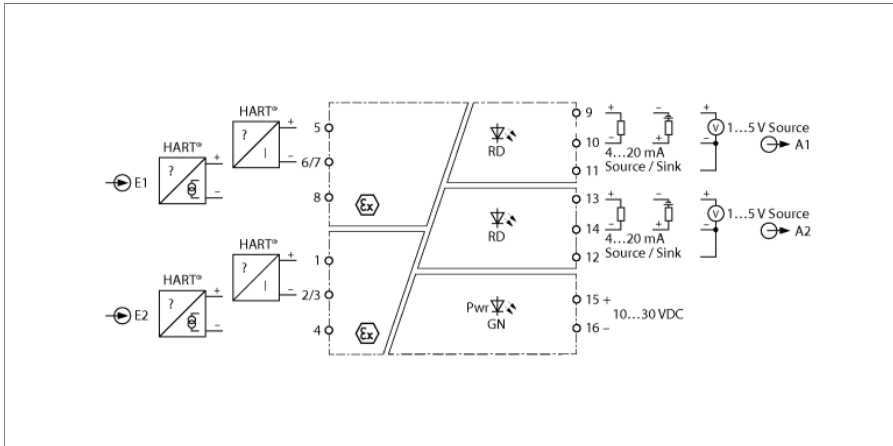


Isolating transducer
2-channel
IMX12-AI01-2I-2IU-H0 /24VDC



The 2-channel IMX12-AI01-2I-2IU-H0/24VDC HART® isolating transducer is designed to operate intrinsically safe HART® 2-wire transducers in the Ex area and to transmit the measured signals to the non-Ex area.

In addition to the analog signal also digital HART® communication signals can be transmitted bidirectionally. Furthermore, active and passive 2-wire HART® transmitters can be operated. The device is equipped with a 4 ... 20 mA input and output circuit (either as source or sink) or 1...5 V (source). The input signals are transmitted in the range of 3.8... 20.5 mA without interference 1:1 and made available at the outputs in the non-Ex area. Wire-break (< 3.5 mA) and short-circuit (> 22 mA) in the transducer circuit are output as current < 3.5 mA or voltage < 0.875 V.

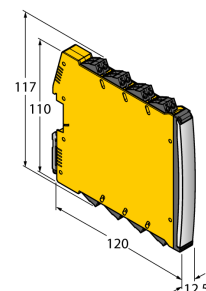
A green LED indicates operational readiness. An error in the input circuit leads to a flashing red LED according to NE44.

The device can be used in safety circuits up to SIL2 (high and low demand according to IEC 61508) and meets the requirements of the NE21. It is equipped with removable screw terminals.

- ATEX, IECEx, NEPSI, INMETRO, Kosha, TR CU
- Installation in zone 2
- SIL 2
- Input circuits monitored for wire-break and short-circuit
- Complete galvanic isolation
- HART transparent
- Removable screw terminals

Isolating transducer 2-channel IMX12-AI01-2I-2IU-H0 /24VDC

Dimensions



Type designation	IMX12-AI01-2I-2IU-H0 /24VDC
Ident no.	7580305
Nominal voltage	24 VDC
Operating voltage range	10...30 VDC
Power consumption	≤ 3.8 W
Transmitter connection	
Supply voltage	≥ 17 V / 20 mA
Input current	2 x 4...20 mA
Temperature drift supply voltage	≤ 0.03 %/K
Reference temperature	23 °C
Output circuits	
Output current	2 x Source/Sink (15...28V) 4...20 mA
Output voltage	2 x 1...5 V
Load resistance, current output	≤ 0.8 kΩ
Short-circuit	Output < 3.5 mA, if in the input circuit a current > 22 mA flows
Wire break	Output < 3.5 mA, if in the input circuit a current < 3.5 mA flows
Rise time (10...90 %)	≤ 5 ms
Fall time (90...10 %)	≤ 5 ms
Measuring accuracy (including linearity, hysteresis and repeatability)	≤ 0.05 % of full scale
Reference temperature	23 °C
Temperature drift	≤ 0.002 % of final value /K
Galvanic isolation	
Test voltage	2.5 kV
Input 1 to output 1	375 V peak value acc. to EN 60079-11
Input 2 to output 2	375 V peak value acc. to EN 60079-11
Input 1 to supply	375 V peak value acc. to EN 60079-11
Input 2 to supply	375 V peak value acc. to EN 60079-11
Output 1 to supply	50 V RMS acc. to EN 50178 and EN 61010-1
Output 2 to supply	50 V RMS acc. to EN 50178 and EN 61010-1
Output 1 to output 2	50 V RMS acc. to EN 50178 and EN 61010-1
Input 1 to input 2	60 V peak value acc. to EN 60079-11
Important note	For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.
Ex approval acc. to conformity certificate	TÜV 15 ATEX 158337 X
Application area	II (1) G, II (1) D
Ignition protection category	[Ex ia Ga] IIC; [Ex ia Da] IIIC
Application area	II 3 (1) G
Ignition protection type	Ex ec [ia Ga] IIC T4 Gc
Important note	If the device is used in applications to achieve functional safety according to IEC 61508, the safety manual must be used. Information in the data sheet are not valid for functional safety.
Use in SIL safety circuits	SIL 2 acc. to IEC 61508
Indication	
Operational readiness	green
Error indication	red

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Protection class	IP20																																																																																		
Flammability class acc. to UL 94	V-0																																																																																		
Ambient temperature	-25...+70 °C																																																																																		
Storage temperature	-40...+80 °C																																																																																		
Relative humidity	≤ 95 %																																																																																		
Dimensions	120 x 12.5 x 117 mm																																																																																		
Weight	183 g																																																																																		
Mounting instructions	DIN rail (NS35)																																																																																		
Housing material	Polycarbonate/ABS																																																																																		
Electrical connection	Removable screw terminals, 2-pin																																																																																		
Terminal cross-section	0.2...2.5 mm ² (24 ... 13 AWG)																																																																																		
Tightening torque	0.5 Nm																																																																																		
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