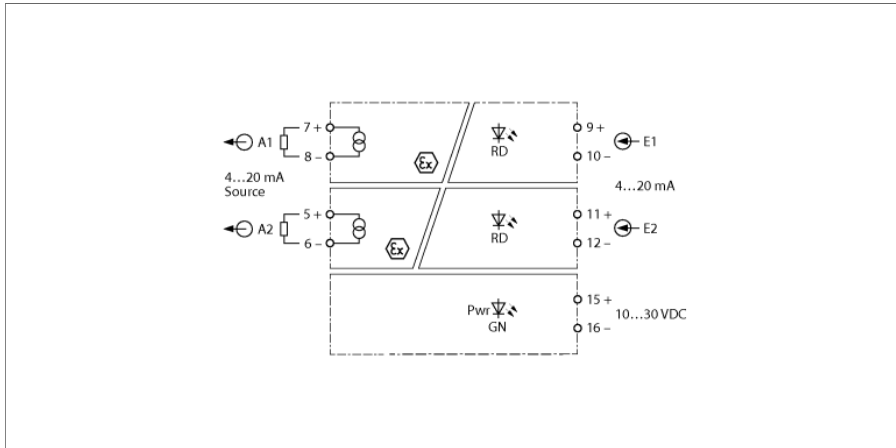


# Analog Signal Isolator

## 2-channel

### IMX12-AO01-2I-2I-H0/24VDC/CC



The 2-channel IMX12-AO01-2I-2I-H0/24VDC/CC signal isolator is designed to transmit the normalized current signal galvanically isolated 1:1 from the non-Ex area to the Ex area. In addition to the analog signal, digital HART® communication signals can also be transmitted bidirectionally. Typical applications are for example the control of I/P converters or indicators in the Ex area.

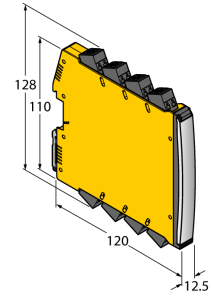
The green LED indicates operational readiness. The device can detect a wire break or short circuit on the field side, the input of the related channel then switches to a high impedance state. An error in the input circuit causes the red LED to flash according to NE44.

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

The device is equipped with removable spring-type terminals.

- Output circuits monitored for wire-break and short-circuit
- Complete galvanic isolation
- HART transparent
- Removable spring type terminals
- ATEX, IECEx, cFM, cUL, NEPSI, INMETRO, Kosha, TR CU EAC CMI, TIIS, Russia Pattern Approval
- Installation in zone 2
- SIL 2

## Dimensions



Type	IMX12-AO01-2I-2I-H0/24VDC/CC
ID	7580407
<b>Nominal voltage</b> 24 VDC	
<b>Operating voltage</b> 10...30 VDC	
<b>Power consumption</b> ≤ 2.2 W	
<b>Power dissipation, typical</b> ≤ 1.31 W	
<b>Input current</b> 2 x 4...20 mA	
<b>Reference temperature</b> 23 °C	
<b>Output circuits</b>	
<b>Output current</b> 2 x 4...20 mA	
<b>Load resistance current output</b> ≤ 0.8 kΩ	
<b>Minimum load</b> ≥ 50 Ω	
<b>Short-circuit</b> At a load resistance of < 30 Ω, the input current is < 500 μA	
<b>Wire break</b> at a load resistance of > 30 kΩ the input current is < 500 μA	
<b>Response characteristic</b>	
<b>Rise time (10...90 %)</b> ≤ 10 ms	
<b>Fall time (90...10 %)</b> ≤ 10 ms	
<b>Measuring accuracy (including linearity, hysteresis and repeatability)</b> ≤ 0.05 % of full scale	
<b>Reference temperature</b> 23 °C	
<b>Temperature drift</b> ≤ 0.002 % of full scale/K	
<b>Galvanic isolation</b>	
<b>Test voltage</b> 2.5 kV RMS	
<b>Input 1 to output 1</b> 375 V peak value acc. to EN 60079-11	
<b>Input 2 to output 2</b> 375 V peak value acc. to EN 60079-11	
<b>Input 1 to supply</b> 150 V RMS according to EN 50178 and EN 61010-1	
<b>Input 2 to supply</b> 150 V RMS according to EN 50178 and EN 61010-1	
<b>Output 1 to supply</b> 375 V peak value acc. to EN 60079-11	
<b>Output 2 to supply</b> 375 V peak value acc. to EN 60079-11	
<b>Output 1 to output 2</b> 50 V RMS according to EN 50178 and EN 61010-1	
<b>Input 1 to input 2</b> 150 V RMS acc. to EN 50178 and EN 61010-1	
<b>Important note</b> For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.	
<b>Ex approval acc. to conformity certificate</b> TÜV 15 ATEX 153600 X	
<b>Application area</b> II (1) G, II (1) D	
<b>Ignition protection category</b> [Ex ia Ga] IIC; [Ex ia Da] IIIC	
<b>Application area</b> II 3 (1) G	
<b>Ignition protection type</b> Ex nA [ia Ga] IIC T4 Gc	
<b>Important note</b> 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.	
<b>Use in SIL safety circuits</b> SIL 2 acc. to IEC 61508	
<b>Displays/Operating elements</b>	
<b>Operational readiness</b> Green	
<b>Error indication</b> 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	120 x 12.5 x 128 mm		
Weight	167 g		
Mounting instructions	DIN rail (NS35)		
Housing material	Polycarbonate/ABS		
Electrical connection	Removable spring-type terminals, 2-pin		
Terminal cross-section	0.2...2.5 mm <sup>2</sup> (AWG: 24...14)		
Environmental conditions	Operating height	Up to 2000 m above sea level	
	Pollution degree	II	
	Surge/Overvoltage category	II (EN 61010-1)	
	Standards used		
	Voltage resistance and insulation		EN 50178
			EN 61010-1
			EN 50155
			GL VI-7-2
	Shock		EN 61373 class B
			EN 50155
			GL VI-7-2
			EN 60068-2-6
			EN 60068-2-27
	Temperature		EN 60068-2-1 Ad
			EN 50155
			GL VI-7-2
			EN 60068-2-2 Bd
			EN 60068-2-1
	Air humidity		EN 60068-2-38
	EMC		EN 50155
			GL VI-7-2
			NE21
			EN 61326-1
			EN 61326-3-1
			EN 61000-4-2
			EN 61000-4-3
			EN 61000-4-4
			EN 61000-4-5
		EN 61000-4-6	
		EN 61000-4-11	
		EN 61000-4-29	
		EN 55011	
		EN 55016	
		EN 50121-3-2	
	EN 61000-6-2		

**Accessories**

Type code	Ident no.		Dimension drawing
IMX12-SC-2X-4BK	7580940	Screw terminals for IM(X)12 modules; included in delivery: 4 pcs. of 2-pin black terminals	
IMX12-SC-2X-4BU	7580941	Screw terminals for IM(X) 12 modules; included in delivery: 4 pcs. of 2-pin blue terminals	
IMX12-CC-2X-4BK	7580942	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. black terminals, 2-pin	
IMX12-CC-2X-4BU	7580943	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. blue terminals, 2-pin	