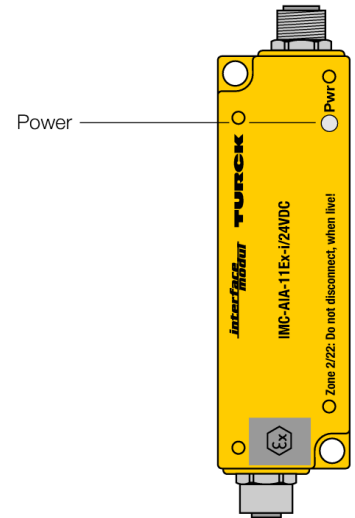
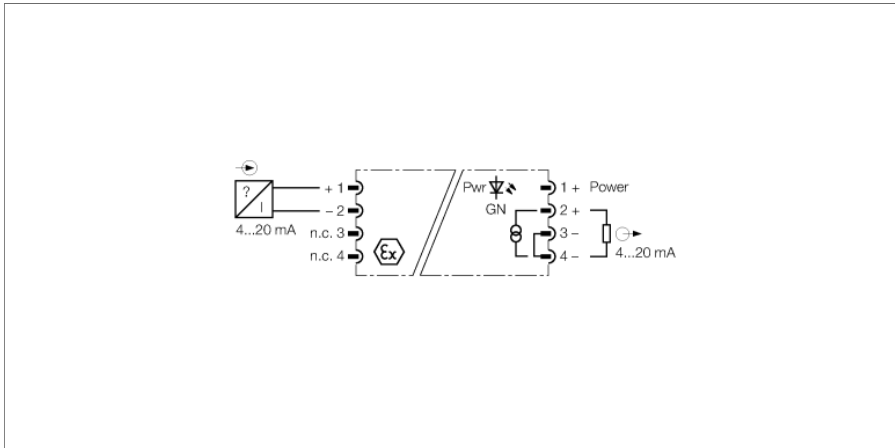




**Isolating transducer**  
**1-channel**  
**IMC-AIA-11EX-I/24VDC**

**TURCK**

Industrial  
Automation



The 1-channel isolating transducer IMC-AIA-11Ex-i/24VDC features an intrinsically safe input circuit. The device can be mounted in zone 2.

The device must be protected against mechanical load on connector and housing when mounted in zone 2 or 22. For this, use the TURCK cover plate IMC-SG (Ident no.7560016).

The standard current signal is transmitted from the Ex-area to the safe area without attenuation (1:1). The output circuit is equipped with a short-circuit protected power source.

Intrinsically safe analog data transmitters can be connected to the device in the Ex area.

The device is designed for 24 VDC supply. The green LED indicates operational readiness.

- ATEX, IECEx, GOST
- Zone 2/22
- SIL 2
- Isolating transducer with M12 x 1 males, 1-channel
- Output circuit: 0/4...20 mA
- Complete galvanic isolation
- Protection class IP67



# Isolating transducer

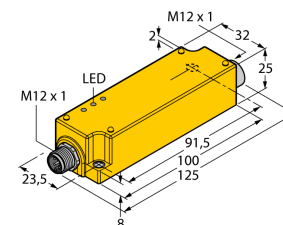
## 1-channel

### IMC-AIA-11EX-I/24VDC

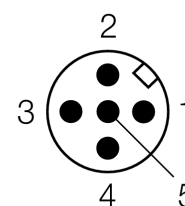
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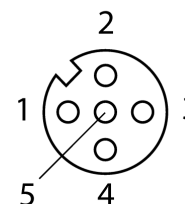
#### Dimensions



#### Pin assignment male M12



#### Pin assignment female M12 (Ex side)



<b>Type code</b>	IMC-AIA-11EX-I/24VDC															
Ident no.	7560009															
<b>Nominal voltage</b>	24 VDC															
Operating voltage range	20...30 VDC															
Power consumption	≤ 1.5 W															
<b>Transmitter connection</b>																
supply current	≤ 14 V															
Current	25 mA															
Current input	0...20 mA															
<b>Output circuits</b>																
Output current	0...20 mA															
Load resistance current output	≤ 0.5 kΩ															
<b>Rise time (10-90%)</b>	≤ 10 ms															
Dropout time (90...10%)	≤ 10 ms															
Measuring accuracy	≤ 0.1 % of full scale															
Reference temperature	23 °C															
Temperature drift	≤ 0.005 % / K															
<b>Galvanic isolation</b>																
Test voltage	2.5 kV															
<b>Ex approval acc. to conformity certificate</b>	TÜV 07 ATEX 553644															
Application area	II (1) GD															
Protection type	[Ex ia] IIB															
Max. values:	female M12 connection: 1+2															
Max. output voltage $U_o$	≤ 21.8 V															
Max. output current $I_o$	≤ 64.5 mA															
Max. output power $P_o$	≤ 1130 mW															
Characteristic	Trapezoidal															
Rated voltage	250 V															
Internal inductance/capacitance L/C,	$L_i$ = negligibly small; $C_i$ = 11 nF															
External inductance/capacitance L/C,																
	<table border="1"> <thead> <tr> <th>Ex ia</th> <th colspan="2">IIB</th> </tr> </thead> <tbody> <tr> <td>Lo[mH]</td> <td>5.8</td> <td>0.2</td> </tr> <tr> <td>Co[nF]</td> <td>469</td> <td>799</td> </tr> </tbody> </table>	Ex ia	IIB		Lo[mH]	5.8	0.2	Co[nF]	469	799						
Ex ia	IIB															
Lo[mH]	5.8	0.2														
Co[nF]	469	799														
Max. output voltage $U_o$	≤ 21.8 V															
Max. output current $I_o$	≤ 64.5 mA															
Max. output power $P_o$	≤ 1130 mW															
Characteristic	linear															
Internal inductance/capacitance L/C,	$C_i$ = 11nF, $L_i$ = negligibly small															
External inductance/capacitance L/C,																
	<table border="1"> <thead> <tr> <th>Ex nL</th> <th colspan="2">IIC</th> <th colspan="2">IIB</th> </tr> </thead> <tbody> <tr> <td>Lo [mH]</td> <td>0.85</td> <td>0.2</td> <td>22</td> <td>10</td> </tr> <tr> <td>Co [nF]</td> <td>129</td> <td>219</td> <td>800</td> <td>1200</td> </tr> </tbody> </table>	Ex nL	IIC		IIB		Lo [mH]	0.85	0.2	22	10	Co [nF]	129	219	800	1200
Ex nL	IIC		IIB													
Lo [mH]	0.85	0.2	22	10												
Co [nF]	129	219	800	1200												
<b>Ex approval acc. to conformity certificate</b>	TÜV 07 ATEX 554129 X															
Application area	II 3G, II 3D															
Protection type	Ex nA [nL] IIB/IIC T4 or rather Ex tD A22 IP67 T 80°C Dc															
Max. values:	female M12 connection: 1+3															
Max. output voltage $U_o$	≤ 21.8 V															
Max. output current $I_o$	≤ 64.5 mA															
Max. output power $P_o$	≤ 1130 mW															
Characteristic	trapezoidal															
Internal inductance/capacitance L/C,	$L_i$ = negligibly small; $C_i$ = 11 nF															
External inductance/capacitance L/C,	$C_i$ = 11nF, $L_i$ = negligibly small															
<b>Approval</b>	SIL2 acc. to EXIDA FMEDA															
MTTF	300 years acc. to SN 29500 (Ed. 99) 40 °C															
<b>Indication</b>																
Operational readiness	green															



**Isolating transducer**  
**1-channel**  
**IMC-AIA-11EX-I/24VDC**

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Industrial  
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<b>Protection class</b>	IP67
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80°C
Dimensions	100 x 32 x 25 mm
Weight	151 g
Mounting instruction	Mounting on backplane
Housing material	polycarbonate/ABS
Electrical connection	M12 flange connection
Tightening torque	3.5 Nm