

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



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

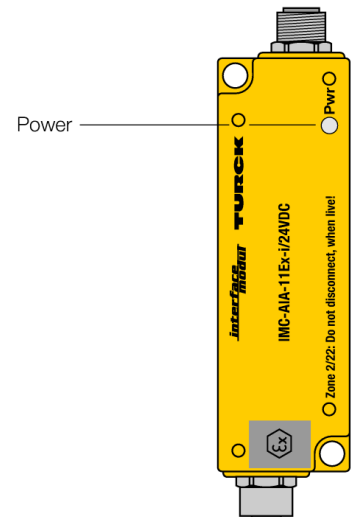
The device must be protected against mechanical load on connector and housing when mounted in zone 2 or 22. For this, use the TURCK cover plate IMC-SG (Ident no.7560016).

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.

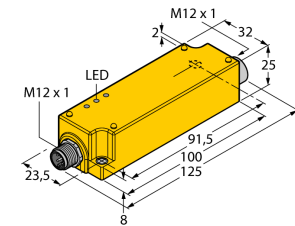
Intrinsically safe analog data transmitters can be connected to the device in the Ex area.

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

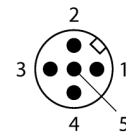
- Isolating transducer, 1-channel
- Output circuit: 0/4...20 mA
- Complete galvanic isolation
- Input reverse-polarity protected
- Protection class IP67
- Connection with M12 male connectors
- ATEX, <sub>c</sub>FM<sub>US</sub>, IECEx
- Use in Zone 2/22



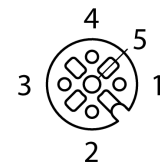
## Dimensions



## Pin assignment male M12

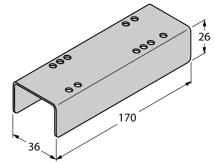
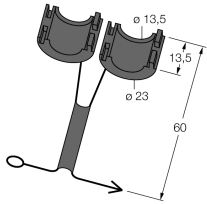


## Pin assignment female M12 (intrinsically safe end)



|                                                                        |                                                                                                              |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Type                                                                   | IMC-AIA-11EX-I/24VDC                                                                                         |
| ID                                                                     | 7560009                                                                                                      |
| Nominal voltage                                                        | 24 VDC                                                                                                       |
| Operating voltage $U_s$                                                | 20...30 VDC                                                                                                  |
| Power consumption                                                      | $\leq 1.5$ W                                                                                                 |
| Transmitter connection                                                 |                                                                                                              |
| Supply voltage                                                         | $\leq 14$ V / 20 mA                                                                                          |
| Current                                                                | 25 mA                                                                                                        |
| Input current                                                          | 4...20 mA                                                                                                    |
| Output circuits                                                        |                                                                                                              |
| Output current                                                         | 0...20 mA                                                                                                    |
| Load resistance current output                                         | $\leq 0.5$ k $\Omega$                                                                                        |
| Response characteristic                                                |                                                                                                              |
| Rise time (10...90 %)                                                  | $\leq 10$ ms                                                                                                 |
| Fall time (90...10 %)                                                  | $\leq 10$ ms                                                                                                 |
| Measuring accuracy (including linearity, hysteresis and repeatability) | $\leq 0.1$ % of full scale                                                                                   |
| Reference temperature                                                  | 23 °C                                                                                                        |
| Temperature drift                                                      | $\leq 0.005$ % of full scale/K                                                                               |
| Galvanic isolation                                                     |                                                                                                              |
| Test voltage                                                           | 2.5 kV RMS                                                                                                   |
| 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 18 ATEX 195739X                                                                                          |
| Application area                                                       | II (1) GD                                                                                                    |
| Ignition protection category                                           | [Ex ia] IIB                                                                                                  |
| Ex approval acc. to conformity certificate                             | TÜV 07 ATEX 554129 X                                                                                         |
| Application area                                                       | II 3G, II 3D                                                                                                 |
| Ignition protection type                                               | Ex nA [nL] IIB/IIC T4 or rather Ex tD A22 IP67 T 80°C Dc                                                     |
| Characteristic                                                         | trapezoidal                                                                                                  |
| Approval                                                               | SIL 2 acc. to EXIDA FMEDA                                                                                    |
| Displays/Operating elements                                            |                                                                                                              |
| Operational readiness                                                  | Green                                                                                                        |
| Mechanical data                                                        |                                                                                                              |
| Protection class                                                       | IP67                                                                                                         |
| Ambient temperature                                                    | -25...+70 °C                                                                                                 |
| Storage temperature                                                    | -40...+80 °C                                                                                                 |
| Dimensions                                                             | 100 x 32 x 25 mm                                                                                             |
| Weight                                                                 | 157 g                                                                                                        |
| Mounting instructions                                                  | panel                                                                                                        |
| Housing material                                                       | Plastic, Polycarbonate/ABS                                                                                   |
| Electrical connection                                                  | M12 receptacle                                                                                               |
| Tightening torque                                                      | 3.5 Nm                                                                                                       |

## Accessories

| Type code  | Ident no. |                                                                                                     | Dimension drawing                                                                   |
|------------|-----------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| IMC-SG     | 7560016   | Metal cover plate for IMC modules (required for application in zones 2/22)                          |  |
| SC-M12/3GD | 6900390   | Captive safety clip for sensors with M12 x 1 connectors and approval acc. to ATEX II 3 G or II 3 D. |  |