



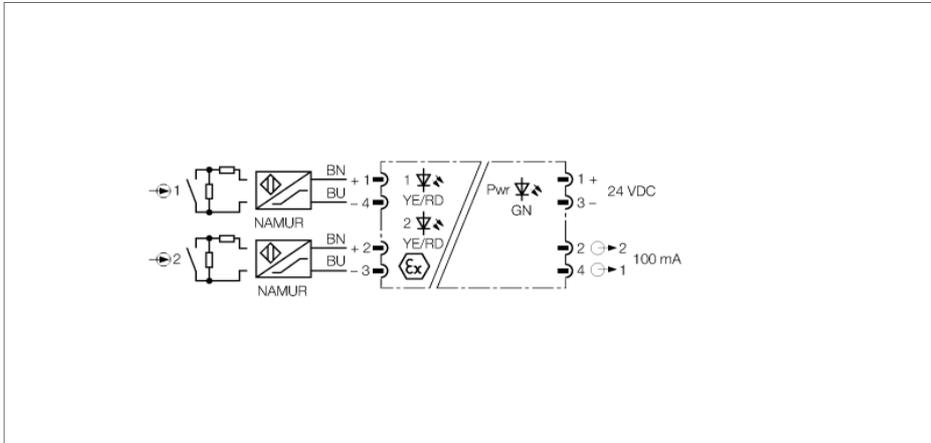
# Isolating switching amplifier

## 2-channel

### IMC-Di-22Ex-PNO/24VDC

**TURCK**

Industrial  
Automation



The dual-channel isolating switching amplifier IMC-Di-22Ex-PNO/24VDC is equipped with intrinsically safe input circuits.

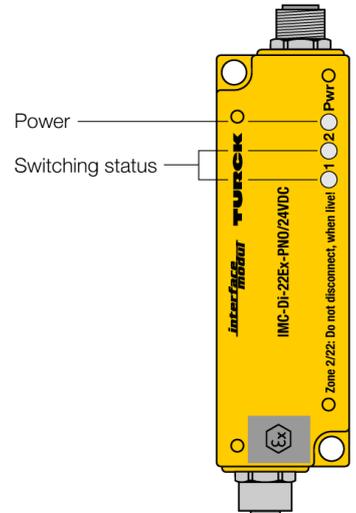
Sensors according to EN 60947-5-6 (NAMUR), variable resistances or potential-free contactors can be connected to the device.

The output circuits feature two NO transistors.

In case of unprotected mounting in zone 2 i.e. zone 22 the devices need to be protected with the TURCK metal cover plate IMC-SG (Ident no.: 7560016) against mechanical damages of the connectors and the housings.

The green LED indicates operational readiness.

- Dual-channel isolating switching amplifier with M12x1 male connectors
- Intrinsically safe inputs circuit Ex ia
- Application area acc. to ATEX: II (1) GD, II 3 GD
- Line monitoring for wire-break/short-circuit
- PNP transistor output, NO
- Galvanic separation of input circuits, output circuits and power supply
- Protection class IP67





# Isolating switching amplifier

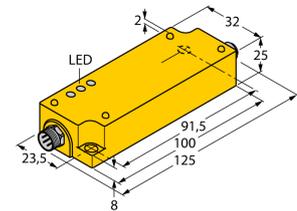
## 2-channel

### IMC-Di-22Ex-PNO/24VDC

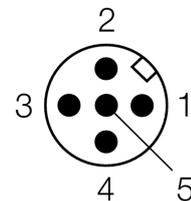
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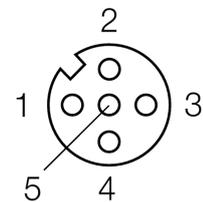
#### Dimensions



#### pin configuration M12 connectors



#### pin assignment female M12 (intrinsically safe end)



<b>Type</b>	IMC-Di-22Ex-PNO/24VDC															
Ident-No.	7560003															
<b>Nominal voltage</b>	24 VDC															
Operating voltage range	20...30 VDC															
<b>NAMUR</b>	EN-60947-5-6															
No-load voltage	8.2 VDC															
Short-circuit current	8.2 mA															
Input resistance	1 kΩ															
Cable resistance	≤ 50 Ω															
Switch-on threshold:	1.55 mA															
Switch-off threshold:	1.75 mA															
<b>Voltage drop</b>	≤ 2.5 V															
Semiconductor output circuit(s)																
Output circuits (digital)	2 x transistors (pnp, short-circuit proof)															
Switching voltage	≤ 30 VDC															
Switching current per output	≤ 50 mA															
Switching frequency	≤ 3000 Hz															
<b>Galvanic separation</b>																
Test voltage	2.5 kV															
<b>Ex approval acc. to conformity certificate</b>	TÜV 07 ATEX 553447															
Application area	II (1) GD															
Protection type	[Ex ia] IIC/IIB															
Max. output voltage $U_o$	≤ 9.6 V															
Max. output current $I_o$	≤ 10 mA															
Max. output power $P_o$	≤ 24 mW															
Rated voltage	250 V															
Characteristic	linear															
Internal inductance/capacitance L/C,	$C_i$ = negligibly small, $L_i$ = 0.15 mH															
External inductance/capacitance L <sub>e</sub> /C <sub>e</sub> ,																
	<table border="1"> <thead> <tr> <th>Ex ia</th> <th colspan="2">IIC</th> <th colspan="2">IIB</th> </tr> </thead> <tbody> <tr> <td>Lo [mH]</td> <td>0.85</td> <td>10</td> <td>1.85</td> <td>20</td> </tr> <tr> <td>Co [nF]</td> <td>1100</td> <td>750</td> <td>5300</td> <td>3400</td> </tr> </tbody> </table>	Ex ia	IIC		IIB		Lo [mH]	0.85	10	1.85	20	Co [nF]	1100	750	5300	3400
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Lo [mH]	0.85	10	1.85	20												
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<b>Ex approval acc. to conformity certificate</b>	TÜV 07 ATEX 554027 X															
Application area	II 3 GD															
Protection class for belonging equipment	Ex nA [nL] IIC/IIB T4 bzw. Ex tD A22 IP67 T96°C															
Max. output voltage $U_o$	≤ 9.6 V															
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Lo [mH]	5.0	0.85	10	0.85												
Co [nF]	1400	1900	6600	11000												
<b>Indication</b>																
Operational readiness	green															
Switching state	yellow															
Error indication	red															
<b>Protection class</b>	IP67															
Ambient temperature	-25...+70 °C															
Storage temperature	-40...80°C															
Dimensions	100 x 32 x 25 mm															
Weight	153 g															
Mounting instruction	Mounting on backplane															
Housing material	Polycarbonate/ABS															
Electrical connection	M12 flange connection															