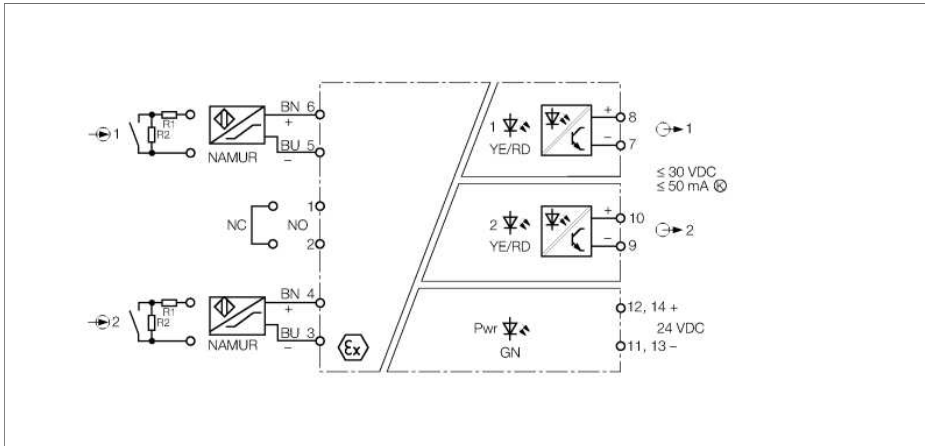


**Isolating switching amplifier  
2-channel  
IME-DI-22EX-T/24VDC**



The dual-channel isolating switching amplifier IME-DI-22EX-T/24VDC is equipped with intrinsically safe input circuits. Sensors according to EN 60947-5-6 (NAMUR) or potential-free contactors can be connected to the device.

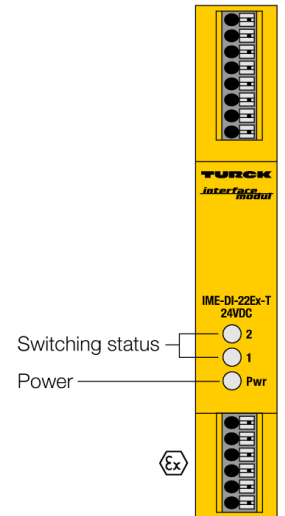
The output circuits each feature a potential free transistor output. The output mode can be adjusted (NO/NC mode) via a wire jumper .

When using mechanical contacts, the wire-break and short-circuit monitoring of the contact with resistors (R2) must be connected to the contacts (see circuit diagram). Particularly suitable is resistor module WM1, ident. no. 092101.

The green LED indicates operational readiness.

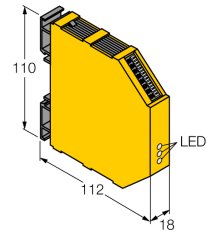
The switching status of the corresponding output is indicated yellow by the two color LED. In the event of an input circuit error the corresponding dual color LED changes to red. Thereupon the related output transistor is de-energized.

- Intrinsically safe inputs circuit Ex ia
- Application area acc. to ATEX: II (1) GD, II 3G
- SIL 2
- Isolating switching amplifier, 2-channel
- Transistor outputs
- Input circuit monitored for wire-break/short-circuit
- Galvanic separation of input circuits, output circuits and supply voltage



**Isolating switching amplifier  
2-channel  
IME-DI-22EX-T/24VDC**

<b>Type code</b>	IME-DI-22EX-T/24VDC															
Ident no.	7541197															
<b>Nominal voltage</b>	24 VDC															
Operating voltage range	20...30 VDC															
Power consumption	≤ 1.5 W															
Power loss, typical	≤ 0.83 W															
<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															
Wire breakage threshold	≤ 0.1 mA															
Short-circuit threshold	≥ 6 mA															
<b>Voltage drop</b>	≤ 2.3 V															
Semiconductor output circuit(s)																
Output circuits (digital)	2 x transistor (potential-free, short-circuit protected)															
Switching voltage	≤ 30 VDC															
Switching current per output	≤ 100 mA															
Switching frequency	≤ 3000 Hz															
Voltage drop	≤ 2.5 V															
<b>Galvanic separation</b>																
Test voltage	2.5 kV															
<b>Ex approval acc. to conformity certificate</b>	TÜV 07 ATEX 553234															
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 <sub>i</sub> /C <sub>i</sub>	C <sub>i</sub> negligibly small; L <sub>i</sub> = 150 μH															
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>10</td> <td>0.85</td> <td>20</td> <td>1.85</td> </tr> <tr> <td>Co [μF]</td> <td>0.75</td> <td>1.1</td> <td>3.4</td> <td>5.3</td> </tr> </tbody> </table>	Ex ia	IIC		IIB		Lo [mH]	10	0.85	20	1.85	Co [μF]	0.75	1.1	3.4	5.3
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Lo [mH]	10	0.85	20	1.85												
Co [μF]	0.75	1.1	3.4	5.3												
Ex approval acc. to conformity certificate	TÜV 07 ATEX 554299 X															
Application area	II 3 G															
Protection class for belonging equipment	Ex nA nC [nL] IIC/IIB T4															
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 <sub>i</sub> /C <sub>i</sub>	L <sub>i</sub> = 150 μH, C <sub>i</sub> = negligibly small															
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Lo [mH]	5	0.85	10	0.85												
Co [μF]	1.4	1.9	6.6	11												
<b>Approval</b>	SIL 2															
MTTF	350 years acc. to SN 29500 (Ed. 99) 40 °C															
<b>Indication</b>																
Operational readiness	green															
Switching state	yellow															
Error indication	red															



**Isolating switching amplifier  
2-channel  
IME-DI-22EX-T/24VDC**

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<b>Protection class</b>	IP20
Ambient temperature	-25...+70 °C
Storage temperature	-40...+80°C
Dimensions	112x 18x 110 mm
Weight	120 g
Mounting instruction	For mounting on DIN rail
Housing material	Polycarbonate/ABS
Electrical connection	cage clamp terminals made of Beryllium-Bronze
Terminal cross-section	1.5 mm <sup>2</sup>