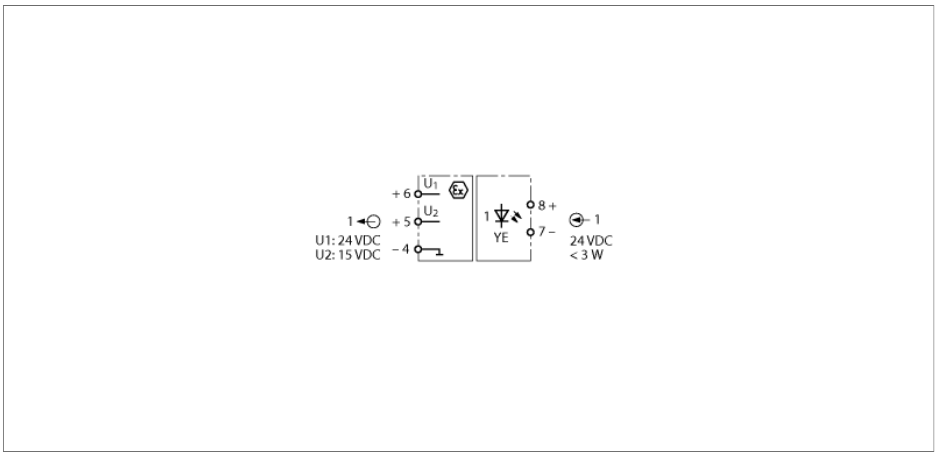
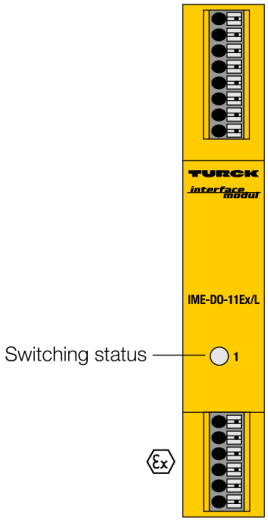
Valve control module
1-channel
IME-DO-11EX/L





The one-channel valve drivers of series IME-DO-11Ex/L feature an intrinsically safe output with limited current and voltage. Thus making direct connection to loads in the Ex-area possible.

Within the area of applicability of the European directive 94/9/EC (ATEX) it is permitted to operate connected loads in potentially explosive atmospheres caused by dust or gas, provided they comply with the applicable regulations. Typical applications are the control of Ex i pilot valves as well as the supply of displays and transmitters.

The output values of the two connections U1 and U2 differ with respect to the no-load voltage indication (see output curve on next page). They are adapted to the valves of different manufacturers. The loads can be controlled when power is applied.

The switching status of the output is indicated by a yellow LED.

- **Intrinsically safe output circuit Ex ia**
- **Application area acc. to ATEX: II (1) GD, II 3G**
- **SIL 3**
- **Valve control module, 1-channel (intrinsically safe power source)**
- **2 output values selectable per channel**
- **LED status indication**
- **Complete galvanic separation**

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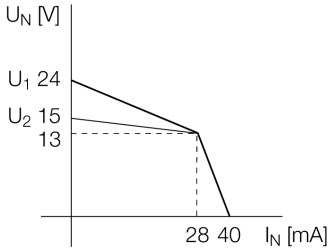
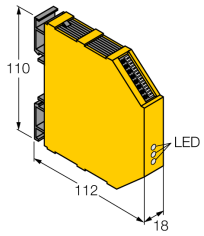
Hans Turck GmbH & Co.KG ● D-45472 Mülheim an der Ruhr ● Witzlebenstraße 7 ● Tel. 0208 4952-0 ● Fax 0208 4952-264 ● more@turck.com ● www.turck.com

Valve control module
1-channel
IME-DO-11EX/L

Type code	IME-DO-11EX/L
Ident no.	7541196
Nominal voltage	Loop-powered
Power consumption	≤ 1.5 W
Power loss, typical	≤ 0.75 W
0-signal	0…5 VDC
1-signal	20...30 VDC
Voltage input	max. 30 VDC
Current input	45 mA
Input delay	≤ 0.4 ms
Output current	40 mA
Output voltage	U1=24 V
Output voltage	U2=15 V
Output curve	
Limit frequency	≤ 500 Hz
Linearity deviation	≤ 0.1 % of full scale
Galvanic separation	
Test voltage	2.5 kV

Dimensions



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Valve control module
1-channel
IME-DO-11EX/L

Ex approval acc. to conformity certificate	TÜV 06 ATEX 2977 X
Application area	II (1) GD
Protection type	[Ex ia] IIC/IIB
Max.output voltage U_o	≤ 25.4 V
Max. output current I_o	≤ 96 mA
Max. output power P_o	≤ 678 mW
Rated voltage	250 V
Characteristic	Trapezoidal
Internal inductance/capacitance L_i/C_i	negligibly small
External inductance/capacitance L_o/C_o	

Ex ia	IIC		IIB	
Lo [mH]	0.68	0.5	13.0	2.0
Co [µF]	0.067	0.076	0.31	0.34

Max.output voltage U_o	≤ 17.6 V
Max. output current I_o	≤ 96 mA
Max. output power P_o	≤ 678 mW
Characteristic	Trapezoidal
Internal inductance/capacitance L_i/C_i	negligibly small
External inductance/capacitance L_o/C_o	

Ex ia	IIC		IIB	
Lo [mH]	1.2	0.5	13.0	2.0
Co [µF]	0.13	0.15	0.47	1.1

Ex approval acc. to conformity certificate	TÜV 06 ATEX 2979 X
Application area	II 3 G
Protection type	Ex nA [nL] IIC / IIB T4
max.Output voltage U_o	≤ 25.4 V
max. Output current I_o	≤ 96 mA
max. Output power P_o	≤ 678 mW
Rated voltage	250 V
Characteristic	Trapezoidal
Innere Induktivität/Kapazität Li/Ci	negligibly small
External inductance/capacitance Lo/Co	

Ex nL	IIC		IIB	
Lo [mH]	1.0	0.5	5.0	0.5
Co [µF]	0.11	0.14	0.75	0.91

max.Output voltage Uo	≤ 17.6 V
max. Output current Io	≤ 96 mA
max. Output power Po	≤ 678 mW
Characteristic	trapezoidal
Innere Induktivität/Kapazität Li/Ci	negligibly small
Lo/Co	

Ex nL	IIC		IIB	
Lo [mH]	2.0	0.5	5.0	1.0
Co [µF]	0.3	0.42	1.6	2.5

MTTF	300 years acc. to SN 29500 (Ed. 99) 40 °C

Indication	
Switching state	yellow

Protection class	IP20
Ambient temperature	-25…+70 °C
Storage temperature	-40…+80°C
Dimensions	112x 18x 110 mm
Weight	115 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^2

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