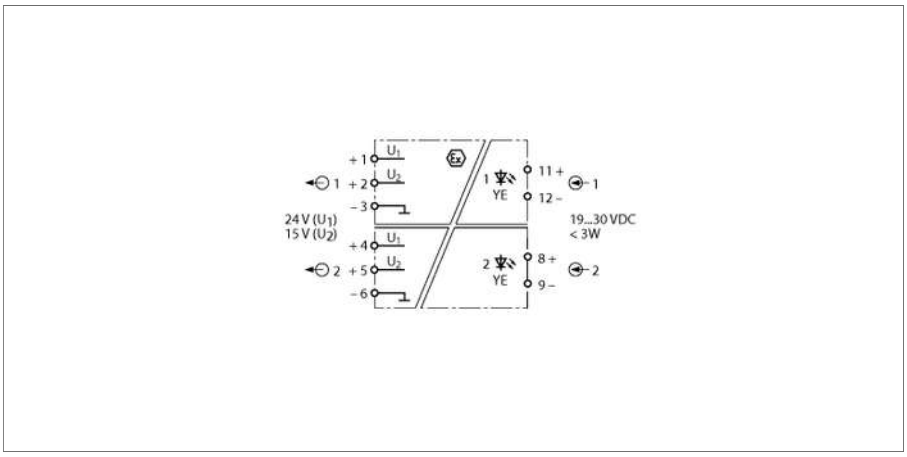
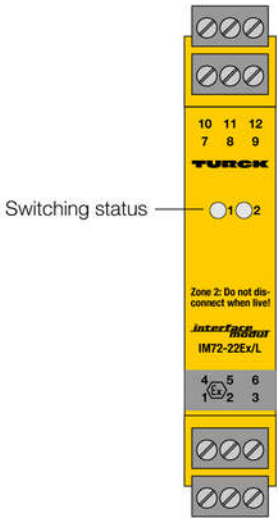
interface modul

Valve control module
2-channel
IM72-22EX/L

TURCK
Industrial Automation





The valve control module IM72-22EX/L provides intrinsically safe limited power at the output. Loads in the Ex area can thus be triggered directly.

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 per channel differ in terms of their no-load voltage and are adapted to the valves of different manufacturers (see output curve on next page).

The loads can be controlled when power is applied.

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

- **ATEX, IECEx, FM, UL, NEPSI, INMETRO, GOST**
- **Installation in zone 2**
- **Voltage input max. 30 VDC**
- **Voltage outuput 15 VDC resp. 24 VDC**
- **Output current ≤ 40 mA**
- **Switching frequency ≤ 500 Hz**
- **SIL3**
- **Removable terminal blocks**
- **Galvanic isolation of input and output circuits**

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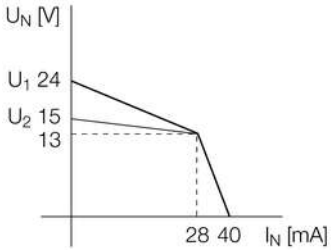
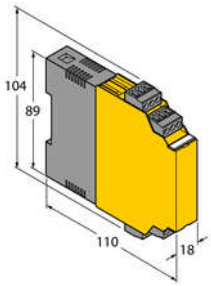
Valve control module
2-channel
IM72-22EX/L

Type code	IM72-22EX/L
Ident no.	7520702
Flammability class acc. to UL 94	V-0
Nominal voltage	24 VDC loop-powered
Power consumption	≤ 2.2 W
0-signal	0…5 VDC
1-signal	19…30 VDC
Current	40 mA
Voltage input	max. 30 VDC
Current input	45 mA
Input delay	≤ 2 ms
Output circuits	
Output circuits	intrinsically safe acc. to EN 60079
Output current	40 mA
Output voltage	U1=24 V
Output voltage	U2=15 V
Output curve	
Limit frequency	≤ 500 Hz
Galvanic isolation	
Test voltage	2.5 kV

Dimensions



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Valve control module
2-channel
IM72-22EX/L

Ex approval acc. to conformity certificate	TÜV 05 ATEX 2846 X
Application area	II (1) GD
Protection type	[EEx ia] IIC
Max. values:	terminal connection: 1+3 / 4+6
Max.output voltage U_o	≤ 27 V
Max. output current I_o	≤ 96 mA
Max. output power P_o	≤ 678 mW
Characteristic	Trapezoidal
Rated voltage	250 V
Internal inductance/capacitance L_i/C_i	negligibly small
External inductance/capacitance L_o/C_o	

EEx ia	IIC		IIB	
Lo [mH]	0.68	0.5	13	2
Co [nF]	62	70	260	300

Max. values:	terminal connection: 2+3 / 5+6
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	

EEx 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 553388 X
Application area	II 3 G
Protection type	Ex nA [nL] IIC/IIB T4
Max. values:	terminal connection: 1+3 / 4+6
Max.output voltage U_o	≤ 27 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 nL	IIC		IIB	
Lo [mH]	0.68	0.5	13	2
Co [nF]	120	130	570	620

Max. values:	terminal connection: 2+3 / 5+6
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 nL	IIC		IIB	
Lo [mH]	1.2	0.5	13	2.0
Co [µF]	0.37	0.42	1	2.1

Approval	SIL 3 acc. to EXIDA FMEDA
MTTF	150 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	104 x 18 x 110 mm
Weight	137 g
Mounting instruction	For mounting on DIN rail or mounting panel
Housing material	polycarbonate/ABS
Electrical connection	4 x 3-pole removable terminal blocks, reverse polarity protected, screw connection
Terminal cross-section	1 x 2.5 mm^2 / 2 x 1.5 mm^2
Tightening torque	0.5 Nm

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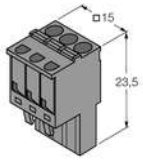
Accessories

Type code	Ident no.	Description	Dimension drawing
IM-CC-3X2BU/2BK	6900475	Cage clamp terminals for IM modules (Ex devices; width 18 mm): 2 blue/2 black, 3-pin, included in delivery.	

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