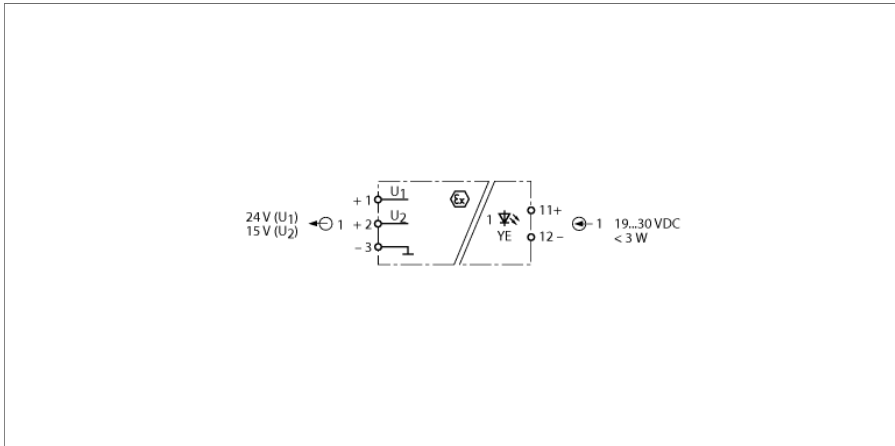


**Valve control module  
1-channel  
IM72-11EX/L**



The valve control module IM72-11EX/L provides intrinsically safe limited power at the output. Loads in the Ex area can thus be triggered directly.

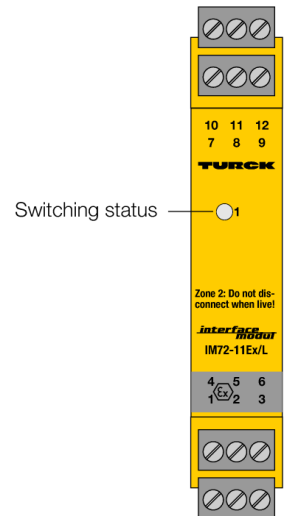
Within the area of applicability of the European directive 94/9/EC (ATEX) it is permitted to operate connected loads in potentially explosive atmospheres caused by dust or gas, provided they comply with the applicable regulations.

Typical applications are the control of Exi 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 output is indicated by a yellow LED.

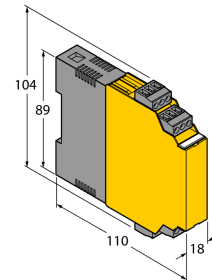
- ATEX, IECEx, FM, UL, NEPSI, INMETRO, GOST
- Installation in zone 2
- Voltage input max. 30 VDC
- Voltage output 15 VDC resp. 24 VDC
- Output current  $\leq 40\text{ mA}$
- Switching frequency  $\leq 500\text{ Hz}$
- SIL3
- Removable terminal blocks
- Galvanic isolation of input and output circuit



**Valve control module  
1-channel  
IM72-11EX/L**

<b>Type code</b>	IM72-11EX/L
Ident no.	7520703
<b>Flammability class acc. to UL 94</b>	V-0
<b>Nominal voltage</b>	24 VDC loop-powered
Power consumption	≤ 1.5 W
<b>0-signal</b>	0...5 VDC
1-signal	19...30 VDC
Current	40 mA
Voltage input	max. 30 VDC
Current input	45 mA
Input delay	≤ 2 ms
<b>Output circuits</b>	intrinsically safe acc. to EN 60079
Output current	40 mA
Output voltage	U <sub>1</sub> =24 V
Output voltage	U <sub>2</sub> =15 V
Output curve	
<b>Limit frequency</b>	≤ 500 Hz
<b>Galvanic isolation</b>	
Test voltage	2.5 kV

**Dimensions**



**Valve control module  
1-channel  
IM72-11EX/L**

**Ex approval acc. to conformity certificate**

Application area TÜV 05 ATEX 2846 X  
 Protection type II (1) GD  
 [EEx ia] IIC  
 Max. values: terminal connection: 1+3  
 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/C,  
 External inductance/capacitance L<sub>e</sub>/C<sub>e</sub>, negligibly small

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

Max. values: terminal connection: 2+3  
 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/C,  
 External inductance/capacitance L<sub>e</sub>/C<sub>e</sub>, negligibly small

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**

Application area TÜV 06 ATEX 553388 X  
 Protection type II 3 G  
 Ex nA [nL] IIC/IIB T4  
 Max. values: terminal connection: 1+3  
 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/C,  
 External inductance/capacitance L<sub>e</sub>/C<sub>e</sub>, negligibly small

Ex nL	IIC		IIB	
Lo [mH]	0.68	0.5	13	2
Co [nF]	120	130	570	620

Max. values: terminal connection: 2+3  
 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/C,  
 External inductance/capacitance L<sub>e</sub>/C<sub>e</sub>, negligibly small

Ex nL	IIC		IIB	
Lo [mH]	1.2	0.5	13	2.0
Co [μF]	0.37	0.42	1	2.1

**Approval**

MTTF SIL 3 acc. to EXIDA FMEDA  
 300 years acc. to SN 29500 (Ed. 99) 40 °C

**Indication**

Switching state yellow

**Protection class**

Ambient temperature IP20  
 -25...+70 °C  
 Storage temperature -40...+80 °C  
 Dimensions 104 x 18 x 110 mm  
 Weight 127 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<sup>2</sup> / 2 x 1.5 mm<sup>2</sup>  
 Tightening torque 0.5 Nm

**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.	