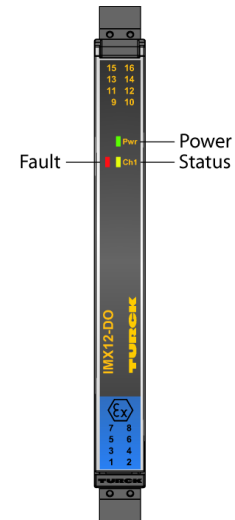
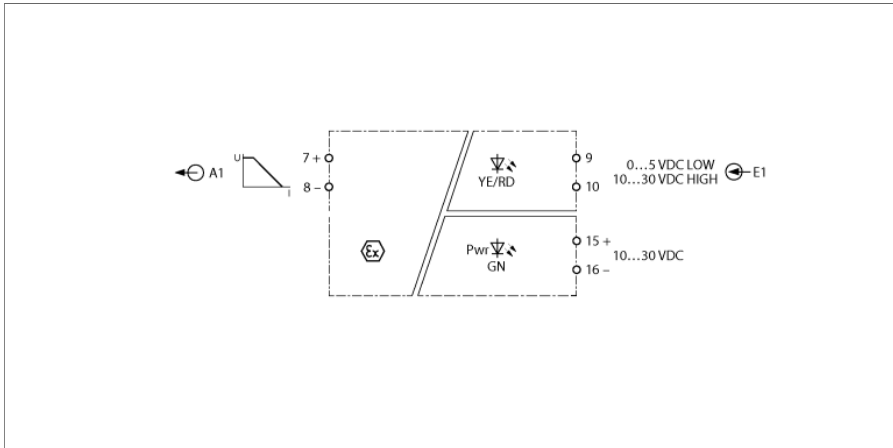


Solenoid Driver

1-channel

IMX12-DO01-1U-1U-0/24VDC/CC



The 1-channel IMX12-DO01-1U-1U-0/24VDC/CC solenoid driver provides an intrinsically safe output signal limited in current and voltage. Loads in the Ex area can thus be supplied directly. Typical applications are the control of Ex i pilot valves and the powering of displays and transmitters.

The device is ready for operation when power is applied. The green LED indicates operational readiness. A yellow LED indicates the switching state of the associated output.

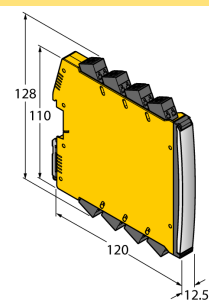
The device can detect a wire break or short circuit when a "high" is present at the input. The input then switches to high impedance. An error in the output circuit causes the red LED to flash according to NE44.

The device can be used in safety circuits up to SIL2 (high and low demand according to IEC 61508) and meets the requirements of NE21. It is equipped with removable spring type terminals.

The device is equipped with removable spring-type terminals.

- Output circuits monitored for wire-break and short-circuit
- Complete galvanic isolation
- Input reverse-polarity protected
- Removable spring type terminals
- ATEX, IECEx, cUL, cFM, INMETRO, NEPSI, Kosha, TIIS
- Use in Zone 2
- SIL 2

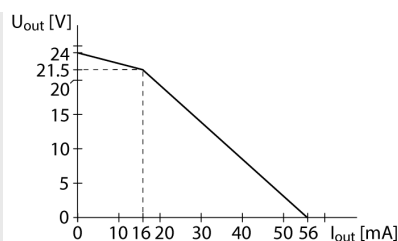
Dimensions



Type	IMX12-DO01-1U-1U-0/24VDC/CC
ID	7580103
Nominal voltage	24 VDC
Operating voltage	10...30 VDC
Power consumption	≤ 1.8 W
Power dissipation, typical	≤ 0.75 W
0-signal	0...5 VDC
1-signal	10...30 VDC
Input delay	≤ 20 ms

Short-circuit	Output at load resistance < 30 Ω, the input will be > 100 kΩ
Wire break	Output at > 20 kΩ load resistance, the input will be > 100 kΩ.

Output curve



Response characteristic

Limit frequency	≤ 50 Hz
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Galvanic isolation

Test voltage	2.5 kV RMS
Input 1 to output 1	375 V peak value acc. to EN 60079-11
Input 1 to supply	300 V RMS according to EN 50178 and EN 61010-1
Output 1 to supply	375 V peak value acc. to EN 60079-11

Important note

For Ex-applications the values specified in the corresponding Ex certificates (ATEX, IECEx, UL, etc.) apply.

Ex approval acc. to conformity certificate	TÜV 14 ATEX 149780X
Application area	II (1) G, II (1) D
Ignition protection category	[Ex ia Ga] IIC; [Ex ia Da] IIIC
Application area	II 3 (1) G
Ignition protection type	Ex nA [ia Ga] IIC T4 Gc

Important note
If the device is used in applications to achieve functional safety according to IEC 61508, the safety manual must be used. Information in the data sheet are not valid for functional safety.

Use in SIL safety circuits	SIL 2 acc. to IEC 61508
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Displays/Operating elements

Operational readiness	Green
Switching state	Yellow
Error indication	red

Mechanical data		
Protection class	IP20	
Flammability class acc. to UL 94	V-0	
Ambient temperature	-25...+70 °C	
Storage temperature	-40...+80 °C	
Dimensions	120 x 12.5 x 128 mm	
Weight	145 g	
Mounting instructions	DIN rail (NS35)	
Housing material	Polycarbonate/ABS	
Electrical connection	Removable spring-type terminals, 2-pin	
Terminal cross-section	0.2...2.5 mm² (AWG: 24...14)	
Environmental conditions	Operating height	Up to 2000 m above sea level
	Pollution degree	II
	Surge/Overvoltage category	II (EN 61010-1)
	Standards used	
	Voltage resistance and insulation	
		EN 50178
		EN 61010-1
		EN 50155
		GL VI-7-2
	Shock	
		EN 61373 class B
		EN 50155
		GL VI-7-2
		EN 60068-2-6
		EN 60068-2-27
	Temperature	
		EN 60068-2-1 Ad
		EN 50155
		GL VI-7-2
		EN 60068-2-2 Bd
		EN 60068-2-1
	Air humidity	
		EN 60068-2-38
	EMC	
		EN 50155
		GL VI-7-2
		NE21
		EN 61326-1
		EN 61326-3-1
		EN 61000-4-2
		EN 61000-4-3
		EN 61000-4-4
		EN 61000-4-5
		EN 61000-4-6
		EN 61000-4-11
		EN 61000-4-29
		EN 55011
		EN 55016
		EN 50121-3-2
		EN 61000-6-2

Accessories

Type code	Ident no.		Dimension drawing
IMX12-SC-2X-4BK	7580940	Screw terminals for IM(X)12 modules; included in delivery: 4 pcs. of 2-pin black terminals	
IMX12-SC-2X-4BU	7580941	Screw terminals for IM(X) 12 modules; included in delivery: 4 pcs. of 2-pin blue terminals	
IMX12-CC-2X-4BK	7580942	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. black terminals, 2-pin	
IMX12-CC-2X-4BU	7580943	Spring terminals for IM(X)12 modules; included in delivery: 4 pcs. blue terminals, 2-pin	