TURCK

Industrial Automation

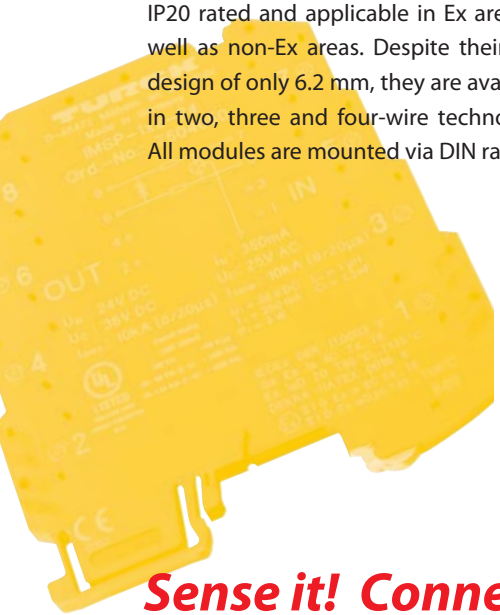
INTERFACE TECHNOLOGY SURGE PROTECTION

Surge protection for MSR circuits

TURCK underlines its claim as a solution provider for interface components with the launch of new surge protection devices. The six new modules of the IMSP series – Interface Module Surge Protection – are plugged to the corresponding interface modules and protect reliably against surge voltages. The devices are IP20 rated and applicable in Ex areas as well as non-Ex areas. Despite their slim design of only 6.2 mm, they are available in two, three and four-wire technology. All modules are mounted via DIN rail.

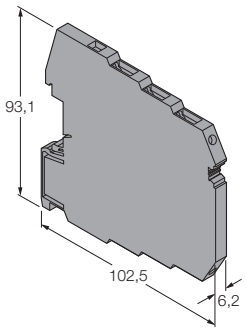
For analog signals in two-wire technology – like provided by analog signal isolators for example – we offer modules with one signal circuit (IMSP-1x2-24) or two signal circuits (IMSP-2x2-24). Binary signals provided by switches, inductive or capacitive sensors are processed by IMSP-2-12 and IMSP-2-24 modules via floating signal conductors. Temperature measuring amplifiers can be connected fully surge protected via IMSP-4-12 and IMSP-4-24 for example.

- For single, dual or four channel floating signal conductors
- Signal circuit in 2-wire technology
- IEC category: C1/C2/C3/D1
- IECEx
- Ex ia IIC/Ex iaD certified
- SIL 2
- Flammability class V-0



Sense it! Connect it! Bus it! Solve it!

Technical data



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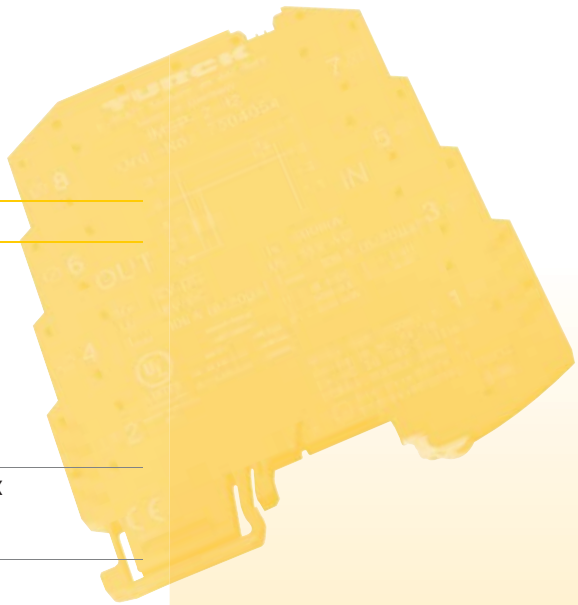

General technical data	
Protection class	IP20
Ambient temperature	-40…+80 °C
Dimensions	93.1 x 6.2 x 102.5 mm
Weight	55 g
Mounting	on DIN rail
Housing material	Plastic
Electrical connection	Screw terminals
Terminal cross-section	2.5 mm²
Ex approval acc. to conformity certificate	DEKRA 11ATEX0016 X
approval	SIL 2
IEC category	C1; C2; C3; D1
Nominal discharge current I_n (8/20) µs (core-ground)	5 kA
Nominal discharge current I_n (8/20) µs (core-ground)	10 kA
Nominal pulse current I_{an} (10/1000) µs (core-ground)	50 A
Lightning test current I_{imp} (10/350) µs, current peak value	500 A
Output voltage limitation 1kV/µs (core-ground)	≤ 650 V
Response time t_A (core-core)	≤ 1 ns
Response time t_A (core-ground)	≤ 100 ns
Alternating current proof acc. to IEC 61643/-21	5 A -1 s
Standards for clearance and creepage distance	IEC 60664-1/EN 60079-11
Standards/Regulations	IEC 61643-21/DIN EN 61643-21
Flammability class acc. to UL94	V-0

Type code	IMSP-2-12	IMSP-2-24	IMSP-1x2-24
Nominal voltage U_n	12 VDC	24 VDC	24 VDC
Nominal current I_n (≤ 40 °C)	500 mA	500 mA	350 mA
Nominal discharge current I_n (8/20) µs	350 A	250 A	5 kA
Nominal pulse current I_{an} (10/1000) µs	70 A	50 A	50 A
Arrester–nominal current U_c	13 VAC/18 VDC	25 VAC/36 VDC	25 VAC/36 VDC
Leakage current acc. to PE at U_c	2 µA	2 µA	2 µA
Discharge current I_{max} (8/20) µs	350 A	250 A	10 kA
Active current I_c at U_c	2 µA (per path)	2 µA (per path)	2 µA
Total discharge current (8/20) µs	20 kA	10 kA	20 kA
Total discharge current (10/350) µs	1 kA	1 kA	1 kA

Type code	IMSP-2x2-24	IMSP-4-12	IMSP-4-24
Nominal voltage U_n	24 VDC	12 VDC	24 VDC
Nominal current I_n (≤ 40 °C)	350 mA	500 mA	500 mA
Nominal discharge current I_n (8/20) µs	5 kA	350 A	250 A
Nominal pulse current I_{an} (10/1000) µs	50 A	70 A	50 A
Arrester–nominal current U_c	25 VAC/36 VDC	13 VAC/18 VDC	25 VAC/36 VDC
Leakage current acc. to PE at U_c	4 µA	4 µA	4 µA
Discharge current I_{max} (8/20) µs	10 kA	350 A	250 A
Active current I_c at U_c	2 µA	2 µA (per path)	2 µA (per path)
Total discharge current (8/20) µs	20 kA	20 kA	20 kA
Total discharge current (10/350) µs	2 kA	2 kA	2 kA

www.turck.com

To get all product information, just scan the QR code with a smartphone or webcam.

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