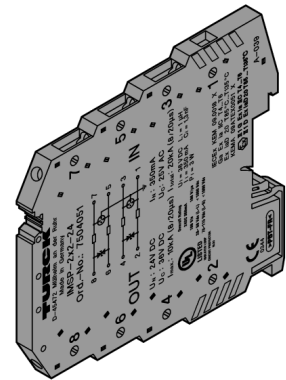
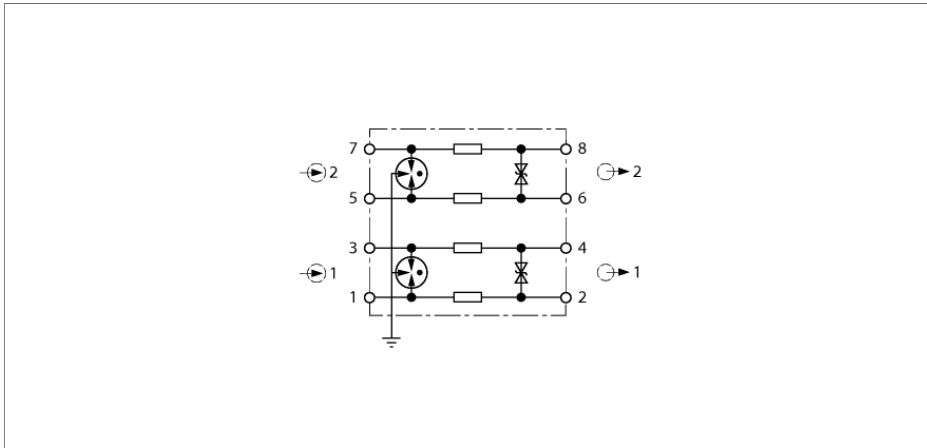


**Surge protection
2-channel
IMSP-2x2-24**



The IMSP-2X2-24 is a surge protection module, designed for the MSR technology. It protects two floating 2-wire signal conductors.

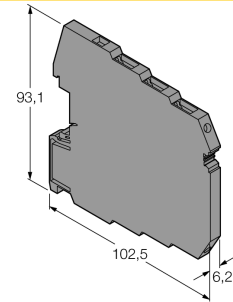
The devices are IP20 protected and can be installed in Ex as well as non-Ex areas.

The 6.2 mm housing can be mounted on DIN rail acc. to DIN NS35.

- Application area acc. to ATEX: II 1 G, II 1 D
- IECEx
- Nominal voltage 24 VDC
- For 2 floating signal circuits in 2-wire technology
- IEC category: C1 / C2 / C3 / D1
- UL
- SIL2
- Flammability class V-0

Surge protection
2-channel
IMSP-2x2-24

Dimensions



Type code	IMSP-2x2-24
Ident no.	7504051
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Nominal voltage U_n	24 VDC
IEC category	C1; C2; C3; D1
Surge arrester, rated voltage U _c	25 VAC / 36 VDC
Nominal current I_n (≤ 40 °C)	350 mA
Active current I _c with given U _c	2 μA
Leakage current acc. to PE with given U _c	4 μA
Nominal discharge surge current I _n (8/20) μs (core-core)	5 kA
Nominal discharge surge current I _n (8/20) μs (core-ground)	5 kA
Total surge current (8/20) μs	20 kA
Total surge current (10/350) μs	2 kA
Discharge surge current I _{max} (8/20)μs (core-to-core)	10 kA
Discharge surge current I _{max} (8/20)μs (core-to-earth)	10 kA
Nominal pulse current I _{sn} (10/1000) μs (core-core)	50 A
Nominal pulse current I _{sn} (10/1000) μs (core-ground)	50 A
Lightning test current (10/350)μs, peak current I _{imp}	500 A
Output voltage limitation 1kV/μs (core-to-core)	≤60 V
Output voltage limitation 1kV/μs (core-to-earth)	≤650 V
Residual voltage I _n (core-to-core)	≤70 V
Residual voltage I _{sn} (core-to-core)	≤50 V
Protection level U _p C2 - 10 kV/5 kA (core-core)	≤70 V (C2 - 10 kV / 5 kA)
Protection level U _p C3 - 10 A (core-core)	≤50 V (C3 - 10 A)
Protection level U _p D1 - 500 A (core-core)	≤80 V (D1 - 500 A)
Protection level U _p C1 - 500 V/250 A (core-ground)	≤650 V (C1 - 500 V / 250 A)
Protection level U _p C2 - 10 kV/5 kA (core-ground)	≤700 V (C2 - 10kV / 5 kA)
Protection level U _p D1 - 500 A (core-ground)	≤700 V (D1 - 500 A)
Response time tA (core-to-core)	≤1 ns
Response time tA (core-to-earth)	≤100 ns
Insertion loss aE, sym.	Typ 0,7 dB (1 MHz / 50 Ω)
Insertion loss aE, asym.	Typ. 0,3 dB (350 MHz / 150Ω)
Cutoff frequency fg (3dB), asym. (GND) 50Ω system	Typ. 6 MHz
Cutoff frequency fg (3dB), asym. (GND) 150Ω system	Typ. 2 MHz
Capacitance	≤1.3 nF (per path)
Resistance per path	3,3 Ω 20%
Required backup fuse, max.	315 mA
Surge protection acc. to IEC 61643-21 (core-to-core)	C2 (10 kV / 5 kA); C3 (25 A)
Surge protection acc. to IEC 61643-21 (core-to-earth)	C2 (10 kV / 5 kA); C3 (25 A); D1 (500 A)
AC protection acc. to IEC 61643-21	5 A - 1 s
Standards for air and creepage distances	IEC 60664-1 / EN60079-11
Standards/Regulations	IEC 61643-21 / DIN EN 61643-21
Flammability class acc. to UL 94	V-0
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Ex approval acc. to conformity certificate	DEKRA 11 ATEX 0016 X
Application area	II 1 G, II 1 D
Protection type	Ex ia IIC T4...T6; Ex iaD 20 T85°C...T135°C
Max. input voltage U _i	≤ 36 V
Max. input current I _i	≤ 350 mA
Max. input power P _i	≤ 3000 mW
Internal inductance/capacitance L/C _i	Li = 1 μH, Ci = 1.3 nF
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Approval	SIL 2
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Mechanical Data	
Protection class	IP20
Ambient temperature	-40...+80 °C
Storage temperature	-40...+80°C
Dimensions	93.1x 6.2x 102.5 mm
Weight	54 g
Mounting instruction	For mounting on DIN rail
Housing material	Plastic
Electrical connection	Screw terminals
Terminal cross-section	2.5 mm ²
Tightening torque	0.8 Nm