

MACX MCR-EX-SL-NAM-2T

Order No.: 2865463



Ex i NAMUR isolating amplifier For operating proximity sensors and switches in Ex areas. The signals are transmitted via 2 transistor outputs (passive) to the safe area. Line fault detection (LFD), 3-way isolation, SIL 2.



Commercial data

EAN	 4 046356 160483
Pack	1
Customs tariff	85438997
Product key	09722
Country of Origin	DE
Catalog page information	Page 448 (IF-2011)

Product notes

WEEE/RoHS-compliant since:
02/08/2006



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Technical data

Input data

Non-load voltage	8 V DC \pm 10 %
Switching points (attenuated)	< 1.2 mA (blocking)
Switching points (unattenuated)	> 2.1 mA (conductive)

Output data

Switching output	2 transistor outputs, passive
Maximum switching voltage	30 V DC (per output)
Min. contact current	5 mA

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC
Max. current consumption	< 28 mA (24 V DC)
Power consumption	800 mW

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Stripping length	8 mm
Screw thread	M3
Connection method	Screw connection
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

General data

No. of channels	1
Ambient temperature (operation)	-20 °C ... 60 °C (Any mounting position)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	10 % ... 95 % (no condensation)
Status display	Green LED (supply voltage)
	LED yellow (switching state)
	Red LED (line errors)
Width	12.5 mm
Height	99 mm
Depth	114.5 mm
Inflammability class according to UL 94	V0
Pollution degree	2

Surge voltage category	III
Housing material	PA 66-FR
Degree of protection	IP20
Color	green
Electrical isolation input / output	375 V (Peak value in accordance with EN 60079-11)
Electrical isolation of input/output, supply, T-connector	300 V _{rms} (Rated insulation voltage, surge voltage category II; pollution degree 2, safe isolation as per EN 61010, EN 50178)
Electrical isolation of output/supply, T connector	300 V _{rms} (Rated insulation voltage, surge voltage category II; pollution degree 2, safe isolation as per EN 61010, EN 50178)
Electrical isolation input / supply / T connector	375 V (Peak value in accordance with EN 60079-11)
Electrical isolation of output 1/output 2	50 V _{rms} (Rated insulation voltage, surge voltage category II; pollution degree 2, safe isolation as per EN 61010, EN 50178)
Conformance	CE-compliant, additionally EN 61326
ATEX	II (1) GD [Ex ia] IIC Ex II 3 G Ex nA II T4 X
IECEX	[Ex ia] IIC; [Ex iaD]; Ex nA II T4 X
UL, USA / Canada	Class I Div 2; IS for Class I, II, III Div 1
Functional safety (SIL)	SIL 2 according to EN 61508

Safety data

Max. capacitance C _i	1.1 nF
Max. voltage U _o	9.6 V
Max. current I _o	10 mA
Max. power P _o	25 mW
Gas group	II C
Max. external inductivity L _o	100 mH
Max. external capacity C _o	510 nF
Gas group	II C
Max. external inductivity L _o	5 mH
Max. external capacity C _o	840 nF
Gas group	II C
Max. external inductivity L _o	1 mH
Max. external capacity C _o	1.2 µF
Gas group	II C
Max. external inductivity L _o	10 µH
Max. external capacity C _o	3.6 µF
Safety-related maximum voltage U _m	253 V AC (125 V DC)

Gas group	II B
Max. external inductivity L _o	100 mH
Max. external capacity C _o	2.7 µF
Gas group	II B
Max. external inductivity L _o	5 mH
Max. external capacity C _o	4.4 µF
Gas group	II B
Max. external inductivity L _o	1 mH
Max. external capacity C _o	6.3 µF
Gas group	II B
Max. external inductivity L _o	10 µH
Max. external capacity C _o	26 µF

Certificates



Certification

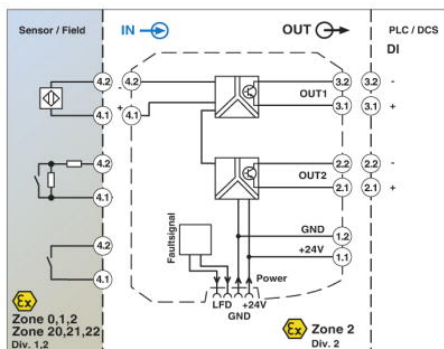
CUL Listed, GL, UL Listed

Certification Ex:

CUL-EX LIS, IECEx, UL-EX LIS

Drawings

Block diagram



Dimensioned drawing

