Isolation amplifier - MACX MCR-SL-2NAM-T - 2865036

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NAMUR isolation amplifier, 2-channel for operating proximity sensors and switches. The signals are transmitted to the control level via transistor outputs (passive). Line fault detection (LFD), 3-way electrical isolation, SIL 2.

Product Features

- Power supply and error indication possible via DIN rail connector
- Up to SIL 2 according to EN 61508
- Installation in zone 2, protection type "n" (EN 60079-15) permitted
- Line fault detection (LFD), can be activated/deactivated, error indicated by red flashing LED with disabling of transistor output
- 2-channel
- Input for NAMUR proximity sensors (EN 60947-5-6), floating contacts or contacts with resistance circuit
- Direction of operation can be selected (operating or closed circuit current behavior)
- 3-way electrical isolation
- LED indicators for supply voltage, switching state, and malfunction according to NAMUR NE 44
- Transistor signal output (passive); up to 5 kHz

Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	140.0 GRM
Custom tariff number	85437090
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

Dimensions

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Technical data

Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C (Any mounting position)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Maximum altitude	≤ 2000 m
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Degree of protection	IP20

Input data

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

Output data

Switching output	Transistor output, 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	< 34 mA (24 V DC)
Power consumption	1000 mW

Connection data

Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section stranded min.	0.2 mm²
Conductor cross section stranded max.	2.5 mm²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	14
Stripping length	7 mm
Screw thread	M3
Connection method	Screw connection
Tightening torque, min	0.5 Nm
Tightening torque max	0.6 Nm

General

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Technical data

General

No. of channels	2
Status display	Green LED (supply voltage)
	LED yellow (switching state)
	Red LED (line errors)
Inflammability class according to UL 94	V0
Pollution degree	2
Surge voltage category	II
Housing material	PA 66-FR
Color	green
Designation	Input/output
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
Designation	Input/output/supply, DIN rail connector
Electrical isolation	300 V_{rms} (Rated insulation voltage (surge voltage category II; pollution degree 2, safe isolation as per EN 61010-1))
	2.5 kV (50 Hz, 1 min., test voltage)
Designation	Output/supply, DIN rail connector
Electrical isolation	300 V_{rms} (Rated insulation voltage (surge voltage category II; pollution degree 2, safe isolation as per EN 61010-1))
	1.5 kV (50 Hz, 1 min., test voltage)
Designation	Input/supply, DIN rail connector
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
Designation	Output 1/output 2
Electrical isolation	50 V_{rms} (Rated insulation voltage (surge voltage category II; pollution degree 2, safe isolation as per EN 61010-1))
	1 kV (50 Hz, 1 min., test voltage)
Conformance	CE-compliant, additionally EN 61326
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL applied for
Functional Safety (SIL)	SIL 2 according to EN 61508

Classifications

eCl@ss

eCl@ss 4.0	27210121
eCl@ss 4.1	27210121
eCl@ss 5.0	27210121
eCl@ss 5.1	27210121
eCl@ss 6.0	27210121

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Classifications

eCl@ss

eCl@ss 7.0	27210121
eCl@ss 8.0	27210121

ETIM

ETIM 2.0	EC001430
ETIM 3.0	EC001599
ETIM 4.0	EC001485
ETIM 5.0	EC001485

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

Approvals

Approvals

Approvals

GL / Functional Safety

Ex Approvals

ATEX

Approvals submitted

Approval details

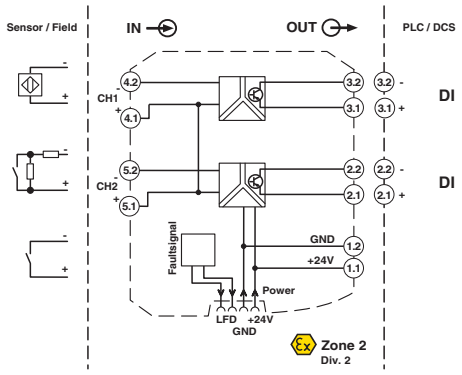
GL

Functional Safety

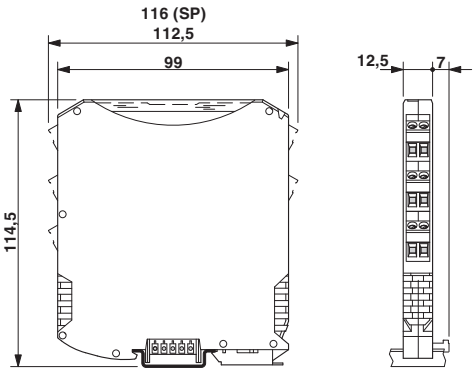
Drawings

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Block diagram



Dimensioned drawing



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