

Signal isolator - MACX MCR-SL-RPSS-2I-2I-SP - 2904090

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2-channel repeater power supply for operating 2-wire measuring transducers, input: 4...20 mA (powered), output: 4...20 mA (active), bidirectional transmission of digital HART communication signals, with push-in connection

The figure shows the version MACX MCR-SL-RPSS-2I-2I



Key Commercial Data

Packing unit	1 STK
GTIN	 4 046356 773362
GTIN	4046356773362
Weight per Piece (excluding packing)	140.000 g
Weight per piece (including packing)	159.800 g
Custom tariff number	85437090
Country of origin	Germany
Note	Made to Order (non-returnable)

Technical data

Note

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

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Technical data

Ambient conditions

Maximum altitude	≤ 2000 m
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Degree of protection	IP20

Output data

Signal output	Current output
Current output signal	4 mA ... 20 mA (active)
Transmission Behavior	1:1 to input signal
Load/output load current output	≤ 450 Ω (20 mA)
	≤ 375 Ω (24 mA)
Output behavior in the event of an error	< 3.6 mA (In the event of cable break at the input (as per NE 43))
	> 22.5 mA (In the event of cable short circuit at the input (as per NE 43))

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (24 V DC -20%...+25%)
Max. current consumption	< 100 mA (24 V / 20 mA)
Power consumption	< 1.4 W (at 24 V DC / 20 mA)

Connection data

Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	1.5 mm ²
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	1.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm
Connection method	Push-in connection

General

No. of channels	2
Maximum transmission error	< 0.1 % (of final value)
Transmission error, typical	< 0.05 % (of final value)
Maximum temperature coefficient	< 0.01 %/K
Step response (10-90%)	< 1.3 ms (for 4 mA ... 20 mA step)
Status display	Green LED (supply voltage)
Flammability rating according to UL 94	V0
Degree of pollution	2
Overvoltage category	II
Electromagnetic compatibility	Conformance with EMC directive
Interference emission	EN 61000-6-4

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Technical data

General

Housing material	PA 66-FR
Color	green
Designation	Input/output, power supply
Electrical isolation	300 V _{rms} (Rated insulation voltage (overvoltage category II; degree of pollution 2, safe isolation as per EN 61010-1))
	2.5 kV (50 Hz, 1 min., test voltage)
Designation	Input/output
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
Designation	Input/power supply
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
Designation	Output 1/output 2/ power supply
Electrical isolation	1.5 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 61010 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC T4

Data communication (bypass)

HART function	Yes
Protocols supported	HART

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Flammability rating according to UL 94	V0
Conformance	CE-compliant, additionally EN 61326
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 61010 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC T4

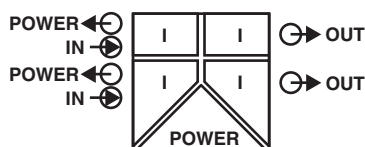
Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

Signal isolator - MACX MCR-SL-RPSS-2I-2I-SP - 2904090

Pictogram



Classifications

eCl@ss

eCl@ss 4.0	27210120
eCl@ss 4.1	27210120
eCl@ss 5.0	27210120
eCl@ss 5.1	27210120
eCl@ss 6.0	27210120
eCl@ss 7.0	27210120
eCl@ss 8.0	27210120
eCl@ss 9.0	27210120

ETIM

ETIM 4.0	EC002653
ETIM 5.0	EC002653
ETIM 6.0	EC002653

UNSPSC

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

Approvals

Approvals

Approvals

UL Listed / cUL Listed / Functional Safety / cULus Listed

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Approvals

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330267
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cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 330267
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Functional Safety			BVS Pb 04/13
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cULus Listed			
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Accessories

Accessories

Device marking

Plastic label - UC-EMLP (11X9) - 0819291



Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Adhesive, Lettering field: 11 x 9 mm

Plastic label - UC-EMLP (11X9) YE - 0822602



Plastic label, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Adhesive, Lettering field: 11 x 9 mm

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Accessories

Plastic label - UC-EMLP (11X9) SR - 0828094



Plastic label, Sheet, silver, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Adhesive, Lettering field: 11 x 9 mm

Plastic label - US-EMLP (11X9) - 0828789



Plastic label, Card, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, Mounting type: Adhesive, Lettering field: 11 x 9 mm

Plastic label - US-EMLP (11X9) YE - 0828871



Plastic label, Card, yellow, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, Mounting type: Adhesive, Lettering field: 11 x 9 mm

Plastic label - US-EMLP (11X9) SR - 0828872



Plastic label, Card, silver, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, Mounting type: Adhesive, Lettering field: 11 x 9 mm

Device marker - LS-EMLP (11X9) WH - 0831678



Device marker, Sheet, white, unlabeled, can be labeled with: TOPMARK LASER, Mounting type: Adhesive, Lettering field: 11 x 9 mm

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Accessories

Device marker - LS-EMLP (11X9) YE - 0831732

Device marker, Sheet, yellow, unlabeled, can be labeled with: TOPMARK LASER, Mounting type: Adhesive, Lettering field: 11 x 9 mm



Device marker - LS-EMLP (11X9) SR - 0831705

Device marker, Sheet, silver, unlabeled, can be labeled with: TOPMARK LASER, Mounting type: Adhesive, Lettering field: 11 x 9 mm



DIN rail connector

DIN rail bus connectors - ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

Insulating sleeve

Insulating sleeve - MPS-IH BK - 0201731



Insulating sleeve, Color: black

Insulating sleeve - MPS-IH GY - 0201728



Insulating sleeve, Color: gray

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Accessories

Insulating sleeve - MPS-IH GN - 0201702



Insulating sleeve, Color: green

Insulating sleeve - MPS-IH YE - 0201692



Insulating sleeve, Color: yellow

Insulating sleeve - MPS-IH BU - 0201689



Insulating sleeve, Color: blue

Insulating sleeve - MPS-IH RD - 0201676



Insulating sleeve, Color: red

Insulating sleeve - MPS-IH WH - 0201663



Insulating sleeve, Color: white

Labeled device marker

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Accessories

Plastic label - UC-EMLP (11X9) CUS - 0824547



Plastic label, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 11 x 9 mm

Plastic label - UC-EMLP (11X9) YE CUS - 0824548



Plastic label, can be ordered: by sheet, yellow, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 11 x 9 mm

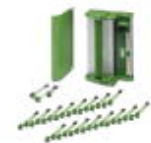
Plastic label - UC-EMLP (11X9) SR CUS - 0828098



Plastic label, can be ordered: by sheet, silver, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 11 x 9 mm

Module carrier

Module carrier - TC-2D37SUB-ADIO32-2EX-P-UNI - 2904684



Universal Termination Carrier for connecting 16 two-channel MACX Analog Ex i signal conditioners to digital or analog I/O cards, via two D-SUB connectors, 37-pos. (1:1 connection)

Power module

Power and error message module - MACX MCR-PTB - 2865625



Power and fault signaling module with screw connection, including corresponding ME 17,5 TBUS 1,5/ 5-ST-3,81 GN DIN rail connector

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Accessories

Power and error message module - MACX MCR-PTB-SP - 2924184



Power and fault signaling module with push-in connection, including corresponding ME 17,5 TBUS 1,5/ 5-ST-3,81 GN DIN rail connector

Test plug terminal block

Test plugs - MPS-MT - 0201744



Test plugs, with solder connection up to 1 mm² conductor cross section, Color: silver