

# Loop-powered isolators - MACX MCR-SL-2I-2I-ILP-SP - 2905281

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Two-channel input loop-powered 2-way isolator with plug-in connection technology for the electrical isolation of analog signals. Input signal = output signal: 0(4) mA ... 20 mA. Push-in connection technology.

## Product Description

Two-channel input-loop-powered 2-way isolator with plug-in connection technology for the electrical isolation and filtering of analog signals. The input-loop-powered isolator allows operation with active sensor technology with a supply voltage of 6 V DC to 30 V DC. The device is powered via the current loop of the sensor. Input signal = output signal: 0(4) mA to 20 mA. With push-in connection.



## Key Commercial Data

Packing unit	1 pc
GTIN	
GTIN	4046356944380

## Technical data

### Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 85 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Maximum altitude	< 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Noise immunity	EN 61326-1

### Input data

Signal input	Current input
Configurable/programmable	no
Max. voltage input signal	< 30.5 V

# Loop-powered isolators - MACX MCR-SL-2I-2I-ILP-SP - 2905281

## Technical data

### Input data

Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
Input voltage limitation	30.5 V
Voltage dissipation	2.9 V (I = 20 mA)
Step response (10-90%)	5 ms (500 Ω load)

### Output data

Signal output	Current output
Configurable/programmable	no
Max. voltage output signal	27.5 V
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
Transmission Behavior	1:1 to input signal
Load/output load current output	≤ 1375 Ω (I = 20 mA)
Residual ripple	< 10 mV <sub>rms</sub> (500 Ω load)

### Power supply

Supply voltage range	no separate supply voltage necessary
----------------------	--------------------------------------

### General

No. of channels	2
Maximum transmission error	≤ 0.1 % (of final value)
Maximum temperature coefficient	≤ 0.002 %/K (of measured value / 100 Ω load)
Degree of pollution	2
Overvoltage category	II
Electromagnetic compatibility	Conformance with EMC directive
Housing material	PA 6.6-FR
Color	gray
Designation	Input/output/power supply
Electrical isolation	300 V <sub>rms</sub> (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)
Conformance	CE-compliant, additionally EN 61326-1
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
SIL	3

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61326-1
Conformance	CE-compliant, additionally EN 61326-1

# Loop-powered isolators - MACX MCR-SL-2I-2I-ILP-SP - 2905281

## Technical data

### Standards and Regulations

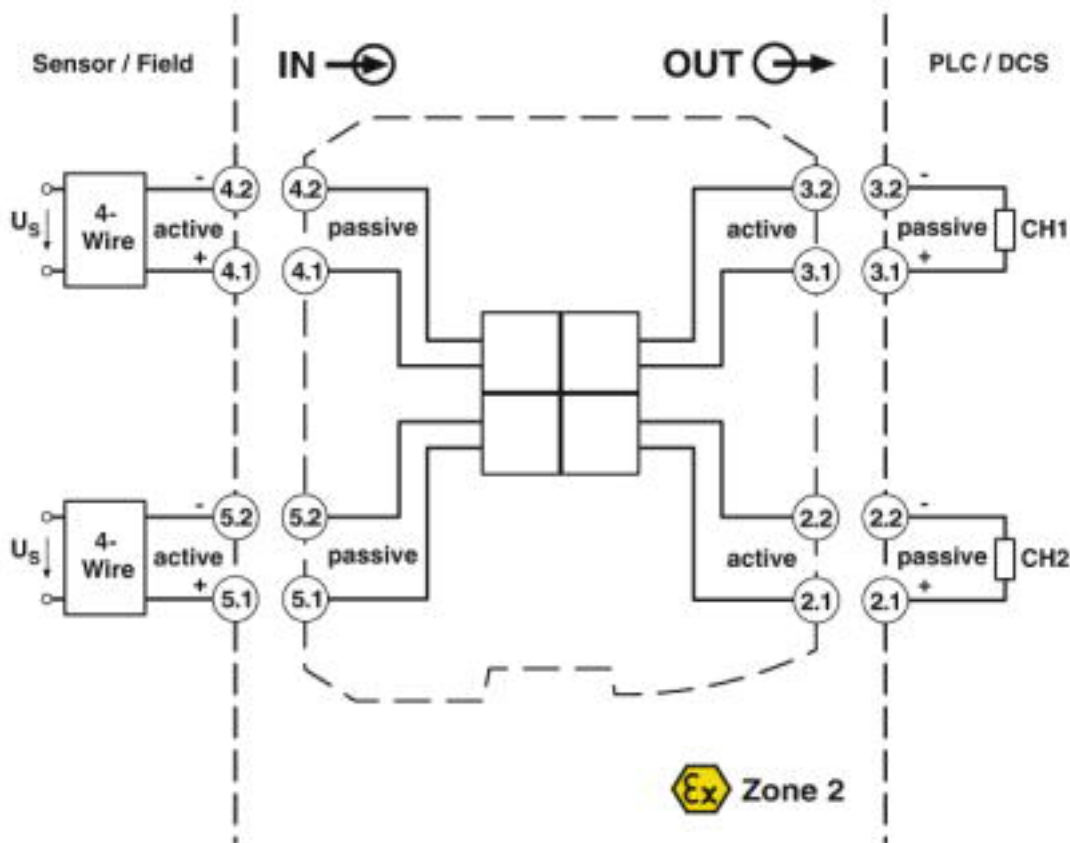
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 61010 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC T4

### Environmental Product Compliance

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

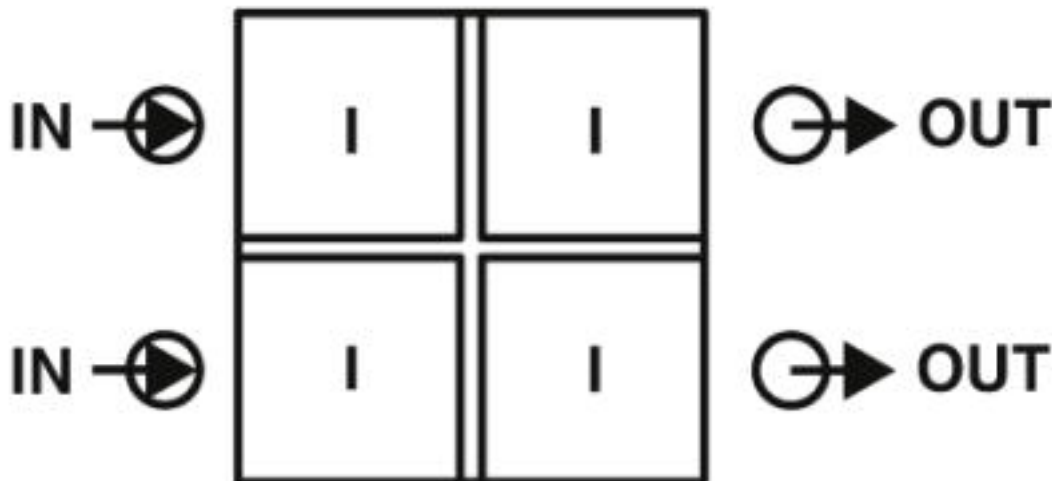
## Drawings

Block diagram



# Loop-powered isolators - MACX MCR-SL-2I-2I-ILP-SP - 2905281

Pictogram



## Approvals

### Approvals

---

#### Approvals

UL Listed / cUL Listed / Functional Safety / EAC / cULus Listed

---

#### Ex Approvals

ATEX / UL Recognized / cUL Recognized / cULus Recognized

---

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330267
-----------	--	---	---------------

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 330267
------------	--	---	---------------

Functional Safety			968/FSP 1200.00/15
-------------------	--	--	--------------------

EAC			RU C- DE.A*30.B.01082
-----	--	--	--------------------------

## Loop-powered isolators - MACX MCR-SL-2I-2I-ILP-SP - 2905281

### Approvals

cULus Listed



Phoenix Contact 2019 © - all rights reserved  
<http://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstr. 8  
32825 Blomberg  
Germany  
Tel. +49 5235 300  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>