

# MACX PL-EX-RPSS-2I-2I-SP - Repeater power supply



2904964

<https://www.phoenixcontact.com/us/products/2904964>

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 documentation. Our general terms of use for downloads are valid.



Ex i measuring transducer repeater power supply, 2-channel, HART-transparent. Supplies Ex i 2-conductor measuring transducers and transmits the 4...20 mA signal from the Ex area to the safe area. PLd, spring-cage connection. Replacement part: 2924676 MACX MCR-EX-SL-RPSS-2I-2I-SP.

## Commercial data

Item number	2904964
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C430
Product key	DK1211
GTIN	4046356904568
Weight per piece (including packing)	196.3 g
Weight per piece (excluding packing)	196.3 g
Customs tariff number	85437090
Country of origin	DE

## Technical data

### Product properties

Product type	Repeater power supply
Application	Analog IN
No. of channels	2

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Electrical properties

Electrical isolation between input and output	yes
Signal transmission behavior	In = Out
Step response (10-90%)	< 1.3 ms (for 4 mA ... 20 mA step)
Maximum temperature coefficient	< 0.01 %/K
Maximum transmission error	< 0.1 % (of final value)
Transmission error, typical	< 0.05 % (of final value)

### Electrical isolation Input/output, power supply

Rated insulation voltage	300 V <sub>rms</sub>
Test voltage	2.5 kV AC (50 Hz, 60 s)
Insulation	Safe isolation in accordance with IEC/EN 61010-1

### Electrical isolation Input/output

Electrical isolation	375 V (Peak value in accordance with IEC/EN 60079-11)
----------------------	---

### Electrical isolation Input/power supply

Electrical isolation	375 V (Peak value in accordance with IEC/EN 60079-11)
----------------------	---

### Electrical isolation Output 1/output 2/ power supply

Test voltage	1.5 kV AC (50 Hz, 60 s)
--------------	-------------------------

### 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 dissipation	< 1.4 W (at 24 V DC / 20 mA)

## Input data

### Signal

Description of the input	intrinsically safe
Number of inputs	2
Current input signal	4 mA ... 20 mA
Transmitter supply voltage	> 16 V (at 20 mA)
Underload/overload signal range	0 mA ... 24 mA

## Output data

Signal: Current

Output description	Current output
Number of outputs	2
Current output signal	4 mA ... 20 mA (active)
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))
Underload/overload signal range	0 mA ... 24 mA

## Connection data

Connection method	Push-in connection
Stripping length	8 mm
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 16

Test socket

Max. diameter	2.3 mm
---------------	--------

## Ex data

Safety data

Max. output voltage $U_o$	25.2 V
Max. output current $I_o$	93 mA
Max. output power $P_o$	587 mW
Safety-related maximum voltage $U_m$	253 V AC (125 V DC)
IIC: Max. external inductivity $L_o$ / Max. external capacitance $C_o$	2 mH / 107 nF
IIB: Max. external inductivity $L_o$ / Max. external capacitance $C_o$	4 mH / 820 nF

## Interfaces

Data communication (bypass)

HART function	Yes
Protocols supported	HART-transparent

## Signaling

Status display	Green LED (supply voltage)
----------------	----------------------------

## Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

# MACX PL-EX-RPSS-2I-2I-SP - Repeater power supply



2904964

<https://www.phoenixcontact.com/us/products/2904964>

## Material specifications

Color	yellow (RAL 1018)
Flammability rating according to UL 94 (Housing)	V0 (Housing)

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20 (not assessed by UL)
Ambient temperature (operation)	-20 °C ... 60 °C (Any mounting position)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	10 % ... 95 % (non-condensing)

## Approvals

### CE

Certificate	CE-compliant
Note	and EN 61326

### ATEX

Identification	Ⓜ II (1) G [Ex ia Ga] IIC/IIB
	Ⓜ II (1) D [Ex ia Da] IIIC
	Ⓜ II 3(1) G Ex nA [ia Ga] IIC T4 Gc
Certificate	BVS 13 ATEX E 001 X

### IECEX

Identification	[Ex ia Ga] IIC/IIB
	[Ex ia Da] IIIC
	Ex nA [ia Ga] IIC T4 Gc
Certificate	IECEX BVS 13.0007X

### UL, USA/Canada

Identification	UL 61010 Listed
Certificate	Ⓜ C.D.-No 83104549

### Shipbuilding approval

Identification	C, EMC2
Certificate	DNV GL 11 564-14HH

### Safety Integrity Level (SIL, IEC 61508)

Identification	3
----------------	---

### Performance Level (ISO 13849)

Identification	d
----------------	---

## EMC data

Electromagnetic compatibility	Conformance with EMC directive
-------------------------------	--------------------------------

# MACX PL-EX-RPSS-2I-2I-SP - Repeater power supply



2904964

<https://www.phoenixcontact.com/us/products/2904964>

Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

## Noise emission

Standards/regulations	EN 61000-6-4
-----------------------	--------------

## Mounting

Mounting type	DIN rail mounting
---------------	-------------------

# MACX PL-EX-RPSS-2I-2I-SP - Repeater power supply

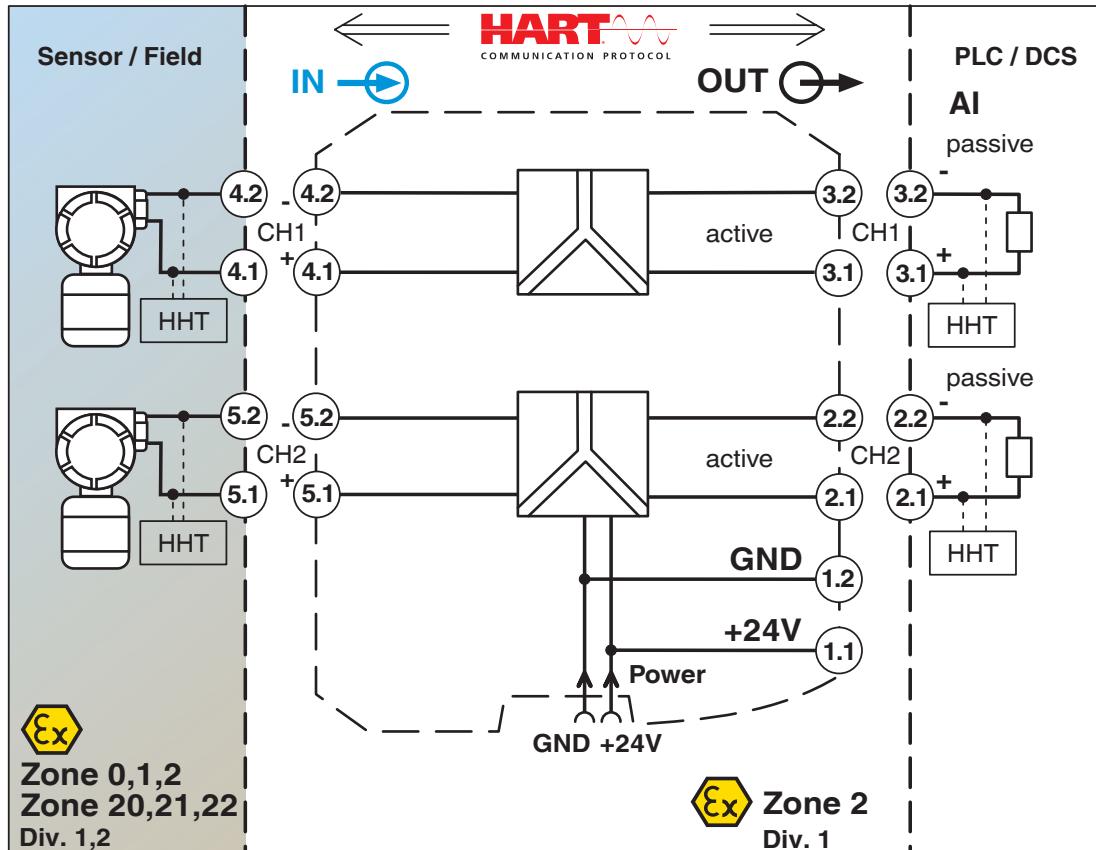


2904964

<https://www.phoenixcontact.com/us/products/2904964>

## Drawings

Block diagram



2904964

<https://www.phoenixcontact.com/us/products/2904964>

## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2026 © - all rights reserved  
<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)