

MACX PL-EX-RPSSI-2I - Repeater power supply



2904959

<https://www.phoenixcontact.com/us/products/2904959>

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 power supply and input signal conditioner, HART-transparent. Transfers supplied or active 0/4 ... 20 mA signals from the Ex area electrically isolated to two loads in the safe area. PLd, screw connection. Replacement part: 2865366 MACX MCR-EX-SL-RPSSI-2I.

Commercial data

Item number	2904959
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C430
Product key	DK1211
GTIN	4046356904049
Weight per piece (including packing)	200.5 g
Weight per piece (excluding packing)	200 g
Customs tariff number	85437090
Country of origin	DE

MACX PL-EX-RPSSI-2I - Repeater power supply



2904959

<https://www.phoenixcontact.com/us/products/2904959>

Technical data

Product properties

Product type	Repeater power supply
No. of channels	1

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

Electrical isolation between input and output	yes
Step response (10-90%)	1.3 ms (for jump 4 mA ... 20 mA, typical)
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 _{rms}
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

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

Supply

Designation	Repeater power supply operation
Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (24 V DC, -20 % ... +25 %)
Max. current consumption	< 75 mA (24 V DC / 20 mA)
Power dissipation	< 1.45 W (24 V DC/20 mA)

Supply

Designation	Signal conditioner operation
Nominal supply voltage range	19.2 V DC ... 30 V DC (24 V DC, -20 % ... +25 %)
Max. current consumption	< 46 mA (24 V DC / 20 mA)
Power dissipation	< 1.2 W (24 V DC/20 mA)

Input data

Signal: Repeater power supply operation

MACX PL-EX-RPSSI-2I - Repeater power supply



2904959

<https://www.phoenixcontact.com/us/products/2904959>

Description of the input	Repeater power supply operation
Number of inputs	1
Current input signal	4 mA ... 20 mA
Transmitter supply voltage	> 16 V (20 mA) > 15.1 V (23 mA)

Signal: Signal conditioner operation

Description of the input	Signal conditioner operation
Current input signal	4 mA ... 20 mA
Voltage drop	~ 3.9 V

Output data

Signal: Repeater power supply operation

Output description	Repeater power supply operation
Number of outputs	2
Current output signal	4 mA ... 20 mA (active)
Load/output load current output	< 450 Ω (20 mA) < 380 Ω (23 mA)
Output ripple	< 20 mV _{rms}
Output behavior in the event of an error	0 mA (Cable break in the input) \geq 23 mA (Cable short-circuit in the input)

Signal: Signal conditioner operation

Output description	Signal conditioner operation
Current output signal	4 mA ... 20 mA (active)
Load/output load current output	< 450 Ω (20 mA) < 380 Ω (23 mA)
Output ripple	< 20 mV _{rms}
Output behavior in the event of an error	0 mA (Cable break in the input) 0 mA (Cable short-circuit in the input)

Connection data

Connection method	Screw connection
Stripping length	7 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	24 ... 14
Tightening torque	0.5 Nm ... 0.6 Nm

Ex data

Safety data

Note	Repeater power supply operation
Max. output voltage U _o	25.2 V

MACX PL-EX-RPSSI-2I - Repeater power supply



2904959

<https://www.phoenixcontact.com/us/products/2904959>

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

Safety data

Note	Signal conditioner operation
Input voltage U_i	≤ 30 V
Input current I_i	≤ 150 mA
Max. internal inductance L_i	negligible
Max. internal capacitance C_i	negligible

Interfaces

Data communication (bypass)

HART function	Yes
Protocols supported	HART-transparent

Signaling

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

Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

Material specifications

Color	yellow (RAL 1018)
Flammability rating according to UL 94 (Housing)	V0 (Housing)
Housing material	PA 6.6-FR

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

MACX PL-EX-RPSSI-2I - Repeater power supply



2904959

<https://www.phoenixcontact.com/us/products/2904959>

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/IIB T4 Gc
Certificate	BVS 10 ATEX E 143 X

IECEX

Identification	[Ex ia Ga] IIC/IIB
	[Ex ia Da] IIIC
	Ex nA [ia Ga] IIC/IIB T4 Gc
Certificate	IECEX BVS 10.0097X

UL, USA/Canada

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

Shipbuilding approval

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

Safety Integrity Level (SIL, IEC 61508)

Identification	2
----------------	---

Performance Level (ISO 13849)

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

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

Mounting

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

MACX PL-EX-RPSSI-2I - Repeater power supply

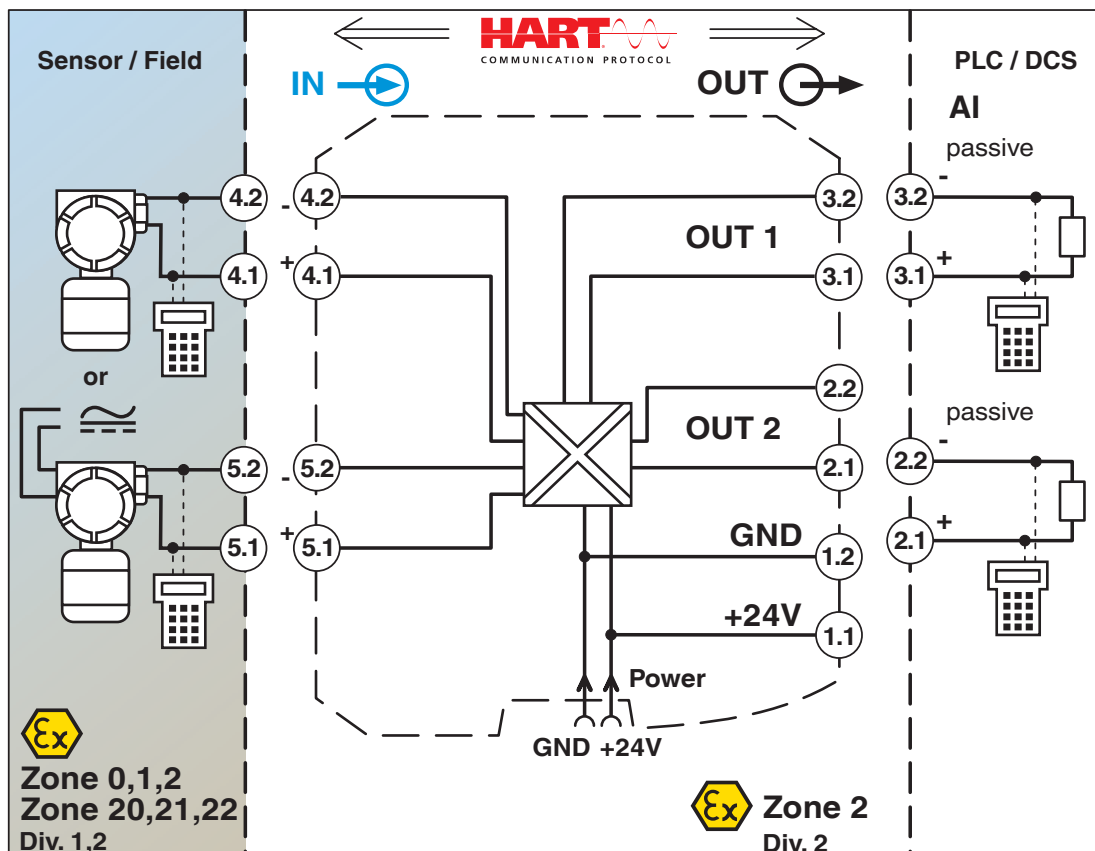


2904959

<https://www.phoenixcontact.com/us/products/2904959>

Drawings

Block diagram



MACX PL-EX-RPSSI-2I - Repeater power supply



2904959

<https://www.phoenixcontact.com/us/products/2904959>

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