

MINI MCR-2-RPS-I-I-OLP - Repeater power supply



2906446

<https://www.phoenixcontact.com/us/products/2906446>

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1-channel output loop-powered 2-way repeater power supply with plug-in connection technology for the electrical isolation of analog signals. Input signal = output signal: 0(4) mA ... 20 mA. Screw connection technology.

Product description

Single-channel output loop-powered 2-way repeater power supply with plug-in connection technology for the electrical isolation and filtering of analog signals. The output loop-powered isolator enables operation at an active analog input card with a supply voltage of 6 V DC ... 30 V DC. The isolator and the connected sensors are supplied via the current loop of the controller. Input signal = output signal: 0(4) mA to 20 mA. The measuring transducer supports NFC communication.

Commercial data

Item number	2906446
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C404
Product key	CK1411
Catalog page	Page 79 (C-5-2019)
GTIN	4055626077925
Weight per piece (including packing)	114.85 g
Weight per piece (excluding packing)	109 g
Customs tariff number	85437090
Country of origin	DE

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Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Product properties

Product type	Repeater power supplies
Product family	MINI Analog Pro
No. of channels	1
Type	Signal conditioner

Insulation characteristics: GB Standard

Overvoltage category	II
Pollution degree	2

Electrical properties

Electrical isolation	2-way isolation
Electrical isolation between input and output	yes
Limit frequency (3 dB)	100 Hz
Signal transmission behavior	In = Out
Maximum temperature coefficient	$\leq 0.001 \text{ \%}/\text{K}$
Maximum transmission error	$\leq 0.1 \text{ \%}$ (At 5 V)

Electrical isolation Input/output/power supply

Rated insulation voltage	300 V _{rms}
Test voltage	3 kV AC (50 Hz, 60 s)
Insulation	Reinforced insulation according to IEC/EN 61010-1

Supply

Supply voltage range	8 V DC ... 30 V DC (loop-powered, no external supply necessary)
Power consumption	600 mW (25 mA)

Input data

Signal: Current

Number of inputs	1
Configurable/programmable	no
Current input signal	0 mA ... 20 mA 4 mA ... 20 mA
Voltage dissipation	3.1 V (I = 20 mA)
Transmitter supply voltage	U _A - 5 V
Additional error, depending on the input voltage	(U _A - 5 V) x 0.06 %

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Output data

Signal: Current

Number of outputs	1
Configurable/programmable	no
Current output signal	0 mA ... 20 mA 4 mA ... 20 mA
Response current	$\approx 1 \mu A$
Voltage dissipation	3.1 V (I = 20 mA)
Load/output load current output	600 Ω

Connection data

Connection method	Screw connection
Stripping length	10 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm ² ... 1.5 mm ² (with ferrule) 0.14 mm ² ... 2.5 mm ² (without ferrule)
Conductor cross section flexible	0.14 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12 (flexible)
Tightening torque	0.5 Nm ... 0.6 Nm

Ex data

Ex installation (EPL)	Gc Div. 2
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Dimensions

Width	6.2 mm
Height	109.81 mm
Depth	119.2 mm

Material specifications

Color	gray (RAL 7042)
Housing material	PBT
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20 (not assessed by UL)
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

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Approvals

CE

Certificate	CE-compliant
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ATEX

Identification	II 3 G Ex ec IIC T4 Gc
Certificate	BVS 19 ATEX E 079 X

UKCA Ex (UKEX)

Identification	II 3 G Ex ec IIC T4 Gc
Certificate	PxCIF21UKEX2901994X

IECEX

Identification	Ex ec IIC T4 Gc
Certificate	IECEX BVS 19.0068X

CCC / China-Ex

Identification	Ex nA IIC T4 Gc
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UL, USA/Canada

Identification	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T6
	Class I, Zone 2, Group IIC T6

EAC Ex

Identification	Ex ec IIC T4 Gc
Certificate	BY/112 02.01 TP012 103.01 00081

EMC data

Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

Standards and regulations

Electrical isolation	2-way isolation
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GB Standard

Standards/regulations	GB 3836.1
	GB 3836.8

Mounting

Mounting type	DIN rail mounting
Mounting position	any

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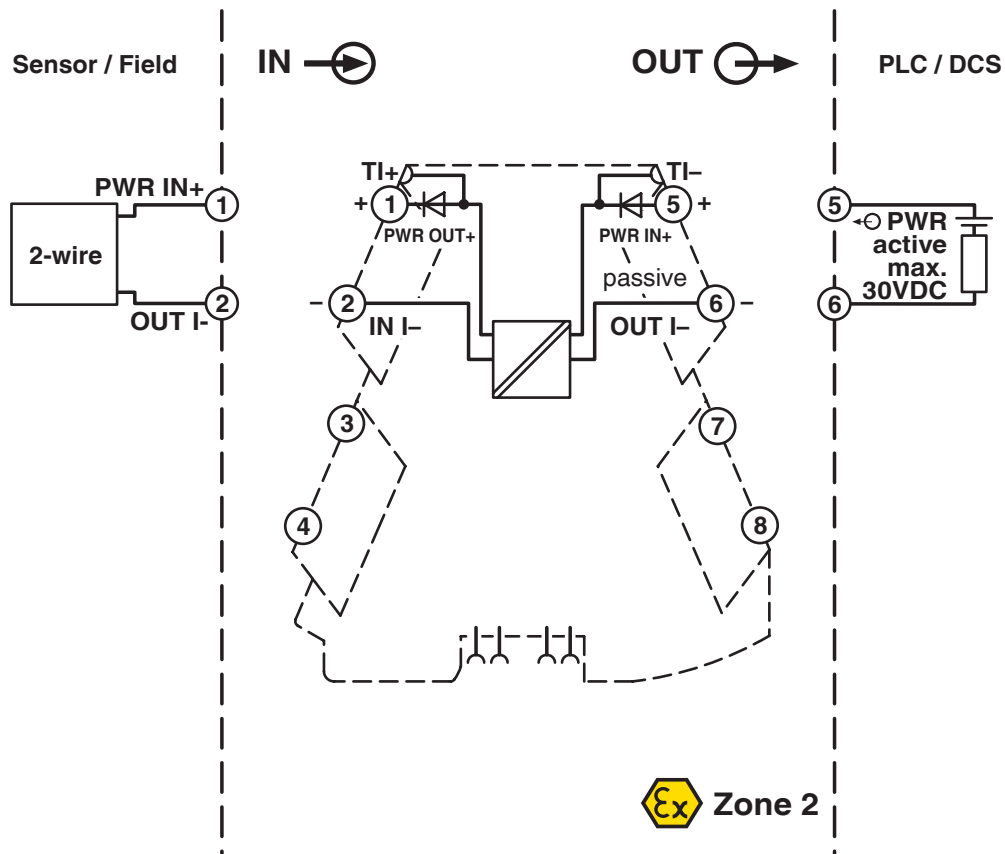
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Drawings

Block diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2906446>

**EAC**
Approval ID: RU*DE.*08.B.01608/19

**UL Listed**
Approval ID: FILE E 238705

**cUL Listed**
Approval ID: FILE E 238705

**IECEx**
Approval ID: IECEx BVS 19.0068X

**cUL Listed**
Approval ID: FILE E 196811

**UL Listed**
Approval ID: FILE E 196811

**ATEX**
Approval ID: BVS 19 ATEX E 079 X

cULus Listed

cULus Listed

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Classifications

ECLASS

ECLASS-11.0	27210120
ECLASS-12.0	27210120
ECLASS-13.0	27210120

ETIM

ETIM 9.0	EC002653
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UNSPSC

UNSPSC 21.0	39121000
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Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I
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.)	Lead(CAS: 7439-92-1)
SCIP	b1716124-a23f-4ba9-8da3-ab28b4b92376

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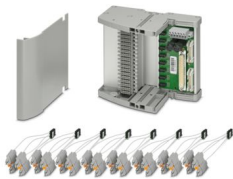
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Accessories

TC-D37SUB-AIO16-MP-PS-UNI - Module carrier

2906640

<https://www.phoenixcontact.com/us/products/2906640>



Universal Termination Carrier for connecting 16 MINI Analog Pro signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection), with HART multiplexer connection

TC-D37SUB-ADIO16-MP-P-UNI - Module carrier

2906639

<https://www.phoenixcontact.com/us/products/2906639>



Universal Termination Carrier for connecting 16 MINI Analog Pro signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection)

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MINI MCR-2-V8-FLK 16 - System adapter

2901993

<https://www.phoenixcontact.com/us/products/2901993>



Eight MINI Analog Pro signal conditioners and measuring transducers can be connected to a controller with minimal cabling effort and without any errors using system adapters and system cabling.

FASTCON PRO-SET - Connector set

2906227

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FASTCON Pro plug set consisting of four plugs with screw connection, one for each position on the module. Suitable for all MINI Analog Pro modules.

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FASTCON PRO-SET-PT - Connector set

2906228

<https://www.phoenixcontact.com/us/products/2906228>



FASTCON Pro plug set consisting of four plugs with push-in connection, one for each position on the module. Suitable for all MINI Analog Pro modules.

UCT-EM (30X5) - Marker for end clamp

0801505

<https://www.phoenixcontact.com/us/products/0801505>



Marker for end clamp, Sheet, white, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, lettering field size: 30 x 5 mm, Number of individual labels: 24

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UCT-EM (30X5) CUS - Marker for end clamp

0801589

<https://www.phoenixcontact.com/us/products/0801589>



Marker for end clamp, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 30 x 5 mm, Number of individual labels: 24

SK 5,0 WH:REEL - Marker strip

0805221

<https://www.phoenixcontact.com/us/products/0805221>



Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK E.300 (D)/600 (D), THERMOMARK ROLL 2.0, THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, mounting type: adhesive, lettering field size: continuous x 5 mm, Number of individual labels: 10

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UC-EMLP (15X5) - Plastic label

0819301

<https://www.phoenixcontact.com/us/products/0819301>

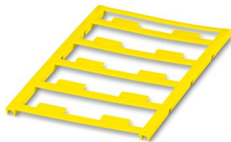


Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

UC-EMLP (15X5) YE - Plastic label

0822615

<https://www.phoenixcontact.com/us/products/0822615>



Plastic label, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

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UC-EMLP (15X5) CUS - Plastic label

0824550

<https://www.phoenixcontact.com/us/products/0824550>

Plastic label, can be ordered: by sheet, white, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm

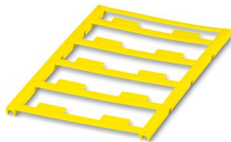


UC-EMLP (15X5) YE CUS - Plastic label

0824551

<https://www.phoenixcontact.com/us/products/0824551>

Plastic label, can be ordered: by sheet, yellow, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm



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UC-EMLP (15X5) SR - Plastic label

0828095

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Plastic label, Sheet, silver, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

UC-EMLP (15X5) SR CUS - Plastic label

0828099

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Plastic label, can be ordered: by sheet, silver, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

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US-EMLP (15X5) - Plastic label

0828790

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Plastic label, Card, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

US-EMLP (15X5) YE - Plastic label

0828873

<https://www.phoenixcontact.com/us/products/0828873>



Plastic label, Card, yellow, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

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US-EMLP (15X5) SR - Plastic label

0828874

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Plastic label, Card, silver, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

US-EMLP (15X5) CUS - Plastic label

0830076

<https://www.phoenixcontact.com/us/products/0830076>



Plastic label, can be ordered: by card, white, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189

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US-EMLP (15X5) YE CUS - Plastic label

0830077

<https://www.phoenixcontact.com/us/products/0830077>

Plastic label, can be ordered: by card, yellow, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189



US-EMLP (15X5) SR CUS - Plastic label

0830078

<https://www.phoenixcontact.com/us/products/0830078>

Plastic label, can be ordered: by card, silver, labeled according to customer specifications, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 189



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UCT-EM (30X5) YE - Marker for end clamp

0830340

<https://www.phoenixcontact.com/us/products/0830340>



Marker for end clamp, Sheet, yellow, unlabeled, can be labeled with: TOPMARK NEO, TOPMARK LASER, BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, THERMOMARK PRIME, THERMOMARK CARD 2.0, THERMOMARK CARD, mounting type: snapped, lettering field size: 30 x 5 mm, Number of individual labels: 24

UCT-EM (30X5) YE CUS - Marker for end clamp

0830348

<https://www.phoenixcontact.com/us/products/0830348>



Marker for end clamp, can be ordered: by sheet, yellow, labeled according to customer specifications, mounting type: snapped into marker carrier, lettering field size: 30 x 5 mm, Number of individual labels: 24

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SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/us/products/1205053>



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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