

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



2906449  
<https://www.phoenixcontact.com/us/products/2906449>

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Two-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. Push-in connection technology.

Product description

Two-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                          | 2906449            |
| Packing unit                         | 1 pc               |
| Minimum order quantity               | 1 pc               |
| Sales key                            | C404               |
| Product key                          | CK1411             |
| Catalog page                         | Page 79 (C-5-2019) |
| GTIN                                 | 4055626077956      |
| Weight per piece (including packing) | 117.6 g            |
| Weight per piece (excluding packing) | 107.9 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 |
|----------|---------------------------------------------------------------------------|

### Product properties

|                 |                         |
|-----------------|-------------------------|
| Product type    | Repeater power supplies |
| Product family  | MINI Analog Pro         |
| No. of channels | 2                       |
| Type            | Signal conditioner      |

#### Data management status

|                  |    |
|------------------|----|
| Article revision | 04 |
|------------------|----|

#### 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 <sub>rms</sub>                              |
| 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           | 2                                |
| Configurable/programmable  | no                               |
| Current input signal       | 0 mA ... 20 mA<br>4 mA ... 20 mA |
| Voltage dissipation        | 3.1 V (I = 20 mA)                |
| Transmitter supply voltage | U <sub>A</sub> - 5 V             |

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Additional error, depending on the input voltage

$(U_A - 5 \text{ V}) \times 0.06 \%$

## Output data

Signal: Current

|                                 |                                       |
|---------------------------------|---------------------------------------|
| Number of outputs               | 2                                     |
| Configurable/programmable       | no                                    |
| Current output signal           | 0 mA ... 20 mA<br>4 mA ... 20 mA      |
| Response current                | $\approx \text{[Symbol]} \mu\text{A}$ |
| Voltage dissipation             | 3.1 V (I = 20 mA)                     |
| Load/output load current output | 600 $\Omega$                          |

## Connection data

|                                  |                                                                                                                              |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Connection method                | Push-in connection                                                                                                           |
| Stripping length                 | 10 mm                                                                                                                        |
| Conductor cross section rigid    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (with ferrule)<br>0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (without ferrule) |
| Conductor cross section flexible | 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>                                                                                 |
| Conductor cross section AWG      | 24 ... 12 (flexible)                                                                                                         |

## Ex data

|                       |              |
|-----------------------|--------------|
| Ex installation (EPL) | Gc<br>Div. 2 |
|-----------------------|--------------|

## 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              |
| Permissible humidity (operation)        | 5 % ... 95 % (non-condensing) |

## Approvals

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



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## CE

|             |              |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

## ATEX

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

## UKCA Ex (UKEX)

|                |                           |
|----------------|---------------------------|
| Identification | Ex 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 |
|----------------|-----------------|

## 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 |
|----------------------|-----------------|

## GB Standard

|                       |           |
|-----------------------|-----------|
| Standards/regulations | GB 3836.1 |
|                       | GB 3836.8 |

## Mounting

|                   |                   |
|-------------------|-------------------|
| Mounting type     | DIN rail mounting |
| Mounting position | any               |

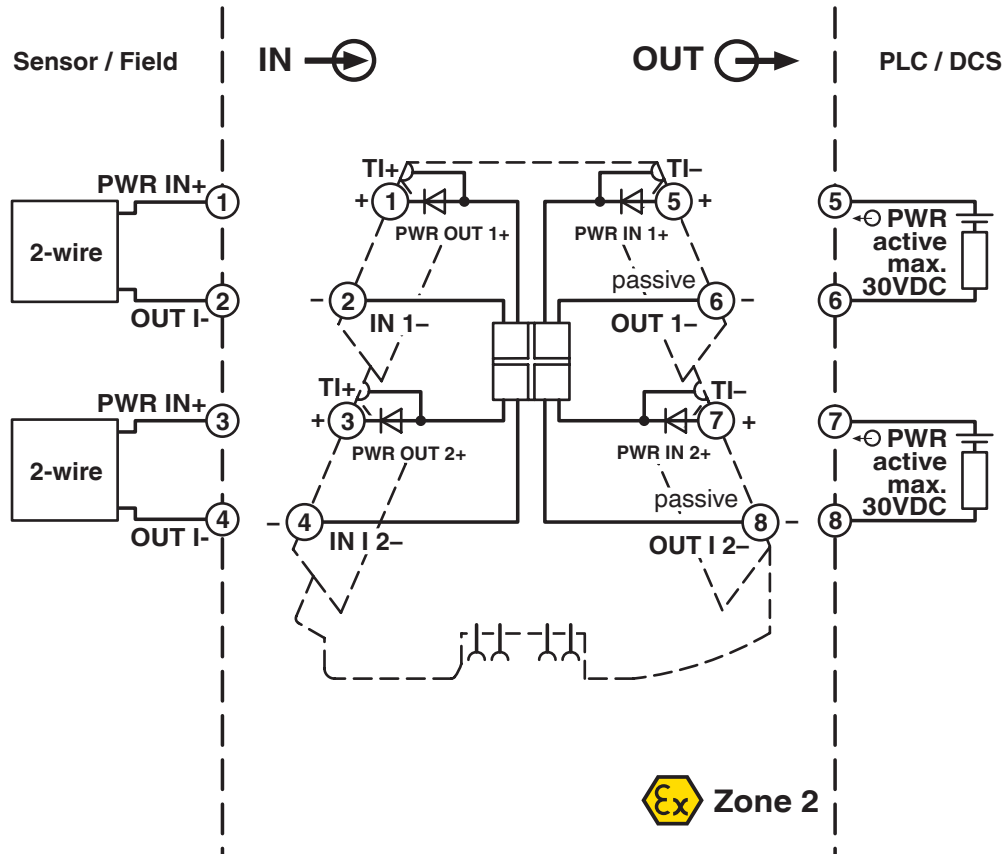
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## Drawings

Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2906449>

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

**UL Listed**  
Approval ID: E238705

**cUL Listed**  
Approval ID: E238705

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

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

**UL Listed**  
Approval ID: E196811

**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 |
|----------|----------|

### 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                                    | be0418a5-f5b4-4780-a794-d66b895e95c3                                                                                                                                                                                              |



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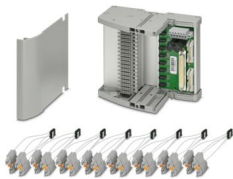
<https://www.phoenixcontact.com/us/products/2906449>

## 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.

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## FASTCON PRO-SET - Connector set

2906227

<https://www.phoenixcontact.com/us/products/2906227>



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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<https://www.phoenixcontact.com/us/products/2906449>

## 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.

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## 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

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



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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

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## 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>



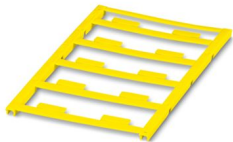
Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK ID COLOR, BLUEMARK ID, BLUEMARK CLED, PLOTMARK, CMS-P1-PLOTTER, mounting type: adhesive, lettering field size: 15 x 5 mm, Number of individual labels: 10

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## 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

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



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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



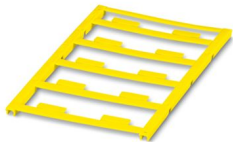
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## UC-EMLP (15X5) YE CUS - Plastic label

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

<https://www.phoenixcontact.com/us/products/0828095>



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

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

0828099

<https://www.phoenixcontact.com/us/products/0828099>



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

<https://www.phoenixcontact.com/us/products/0828790>



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

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## 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

<https://www.phoenixcontact.com/us/products/0828874>



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

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

0830076

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



Plastic label, Card, 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

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



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

0830077

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

Plastic label, Card, 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



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

0830078

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

Plastic label, Card, 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

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## 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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