

Repeater power supply - MINI MCR-2-RPSS-I-2I - 2905628

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4-way power supply doubler with plug-in connection technology. HART transparent, 0(4) ... 20 mA input signal, 0(4)...20 mA output signals. The device can be used in both isolator and repeater power supply mode on active as well as passive analog input cards. Screw connection technology.



Key Commercial Data

| | |
|--------------|---------------|
| Packing unit | 1 STK |
| GTIN | |
| GTIN | 4046356999571 |

Technical data

Note

| | |
|-------------------------|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

Dimensions

| | |
|--------|----------|
| Width | 6.2 mm |
| Height | 110.5 mm |
| Depth | 120.5 mm |

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -40 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Input data

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|--------------------------------|--|
| Description of the input | Current input (sensor circuit) |
| Number of inputs | 1 |
| Current input signal | 4 mA ... 20 mA (repeater power supply and isolator operation) 0 mA ... 20 mA (isolator operation) |
| Input resistance current input | 90 Ω (+ 1.6 V) |
| Transmitter supply voltage | > 19.5 V |

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Output data

| | |
|---------------------------------|---|
| Output name | Current output |
| Number of outputs | 2 |
| Current output signal | 4 mA ... 20 mA (repeater power supply and isolator operation) |
| | 0 mA ... 20 mA (isolator operation) |
| Max. output current | 25 mA |
| Load/output load current output | ≤ 500 Ω (per channel) |
| Ripple | < 20 mV _{PP} (at 500 Ω) |
| Transmission Behavior | 1:1 to input signal |

Power supply

| | |
|-----------------------------|--|
| Nominal supply voltage | 24 V DC |
| Supply voltage range | 9.6 V DC ... 30 V DC (The DIN rail bus connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, Order No. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715)) |
| Typical current consumption | 40 mA (at 24 V DC and in isolator operation) |
| | 65 mA (at 24 V DC and in repeater power supply operation) |
| | 75 mA (at 12 V DC and in isolator operation) |
| | 130 mA (at 12 V DC and in repeater power supply operation) |
| Power consumption | 1.6 W (at I _{OUT} = 20 mA, 500 Ω load) |

Connection data

| | |
|---|---------------------|
| Connection method | Screw connection |
| Single conductor/terminal point, solid, with ferrule, min. | 0.2 mm ² |
| Single conductor/terminal point, solid, with ferrule, max. | 1.5 mm ² |
| Single conductor/terminal point, solid, without ferrule, min. | 0.2 mm ² |
| Single conductor/terminal point, solid, without ferrule, max. | 2.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 1.5 mm ² |
| Min. AWG conductor cross section, flexible | 24 |
| Max. AWG conductor cross section, flexible | 12 |
| Stripping length | 10 mm |
| Screw thread | M3 |

General

| | |
|---------------------------------|--|
| No. of channels | 2 |
| Maximum transmission error | 0.05 % (of final value) |
| Maximum temperature coefficient | 0.0075 %/K |
| Limit frequency (3 dB) | > 1 kHz (typ.) |
| Step response (10-90%) | < 400 μs (typ.) |
| Electrical isolation | Reinforced insulation in accordance with IEC 61010-1 |
| Overvoltage category | II |
| Degree of pollution | 2 |

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General

| | |
|--|--|
| Rated insulation voltage | 300 V |
| Test voltage, input/output/supply | 3 kV (50 Hz, 1 min.) |
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-4 |
| Noise immunity | EN 61000-6-2 When being exposed to interference, there may be minimal deviations. |
| Color | gray |
| Housing material | PBT |
| Mounting position | any |
| Assembly instructions | The T connector can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715. |
| Conformance | CE-compliant |
| ATEX | # II 3 G Ex nA IIC T4 Gc X |
| UL, USA/Canada | UL 508 Listed |
| | Class I, Div. 2, Groups A, B, C, D T5 |
| | Class I, Zone 2, Group IIC T5 |
| GL | GL applied for |
| 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 |

Data communication (bypass)

| | |
|------------------------|---------------|
| Limit frequency (3 dB) | approx. 1 kHz |
|------------------------|---------------|

EMC data

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|-----------------------|--------------------------|
| Designation | Electromagnetic RF field |
| Standards/regulations | EN 61000-4-3 |
| Designation | Fast transients (burst) |
| Standards/regulations | EN 61000-4-4 |
| Designation | Conducted interferences |
| Standards/regulations | EN 61000-4-6 |

Standards and Regulations

| | |
|-------------------------------|--|
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-4 |
| Standards/regulations | EN 61000-4-2 |
| Designation | Electromagnetic RF field |
| Standards/regulations | EN 61000-4-3 |
| | EN 61000-4-4 |
| | EN 61000-4-5 |
| Designation | Conducted interferences |
| Standards/regulations | EN 61000-4-6 |
| Electrical isolation | Reinforced insulation in accordance with IEC 61010-1 |

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Technical data

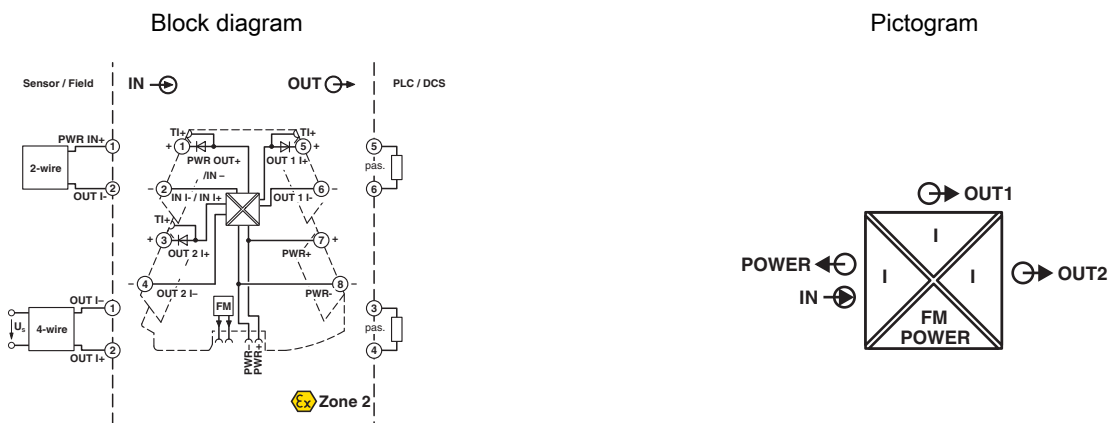
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| Fire protection for rail vehicles (DIN EN 45545-2) R23 | HL 1 - HL 2 HL 1 - HL 2 HL 1 - HL 2 |
| Fire protection for rail vehicles (DIN EN 45545-2) R24 | HL 1 - HL 2 HL 1 - HL 2 HL 1 - HL 2 |
| Fire protection for rail vehicles (DIN EN 45545-2) R26 | HL 1 - HL 2 HL 1 - HL 2 HL 1 - HL 2 |

Environmental Product Compliance

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

Drawings



Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed


Ex Approvals


UL Listed / cUL Listed / ATEX / cULus Listed


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Approvals

Approval details

| | | | |
|-----------|---|---|---------------|
| UL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
|-----------|---|---|---------------|

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| cUL Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
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|--------------|---|---|--|
| cULus Listed |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | |
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