

Repeater power supply - MACX MCR-SL-RPSSI-I-UP-SP - 2924210

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Repeater power supply for supplying 2 and 3-conductor transmitters with HART transmission and wide range power supply, SIL, spring-cage connection

Product Features

- ✓ 250 Ω resistor that can be activated via DIP switches to increase HART impedance for low-resistance systems
- ✓ Up to SIL 2 according to EN 61508
- ✓ Installation in zone 2, protection type "n" (EN 60079-15) permitted
- ✓ Bidirectional transmission of digital HART communication signals
- ✓ Plug-in screw or spring-cage connection technology (Push-in technology), with integrated sockets for HART communicators
- ✓ Wide-range power supply of 19.2 ... 253 V AC/DC
- ✓ 3-way electrical isolation
- ✓ 0/4 ... 20 mA output (active or passive), 0/1 ... 5 V, can be selected via DIP switches
- ✓ 0/4 ... 20 mA input (powered or not powered)



Key commercial data

| | |
|--------------------------------------|-----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 140.0 GRM |
| Custom tariff number | 85437090 |
| Country of origin | Germany |

Technical data

Note

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

Dimensions

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Technical data

Dimensions

| | |
|--------|----------|
| Width | 17.5 mm |
| Height | 99 mm |
| Depth | 114.5 mm |

Ambient conditions

| | |
|---|--|
| Ambient temperature (operation) | -20 °C ... 60 °C (Any mounting position) |
| Ambient temperature (storage/transport) | -40 °C ... 80 °C |
| Maximum altitude | ≤ 2000 m |
| Permissible humidity (operation) | 10 % ... 95 % (non-condensing) |
| Degree of protection | IP20 |

Input data

| | |
|----------------------------|--|
| Current input signal | 0 mA ... 20 mA |
| | 4 mA ... 20 mA |
| Transmitter supply voltage | > 16 V (at 20 mA) |
| Voltage drop | < 3.5 V (in input isolating amplifier operation) |

Output data

| | |
|---------------------------------|--|
| Signal output | Current output |
| Voltage output signal | 0 V ... 5 V (internal resistance, 250 Ω, 0.1%) |
| Current output signal | 0 mA ... 20 mA (active) |
| | 4 mA ... 20 mA (active) |
| | 0 mA ... 20 mA (14 ... 26 V ext. source voltage) |
| | 4 mA ... 20 mA (14 ... 26 V ext. source voltage) |
| Transmission Behavior | 1:1 to input signal |
| Load/output load current output | < 600 Ω (I output) |
| Output ripple | < 20 mV _{rms} |

Power supply

| | |
|--------------------------|--|
| Supply voltage range | 24 V ... 230 V AC/DC (-20%/+10%, 50/60 Hz) |
| Max. current consumption | < 75 mA (at 24 V DC) |
| Power consumption | < 1.8 W |

Connection data

| | |
|--|---------------------|
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 1.5 mm ² |
| Conductor cross section AWG/kcmil min. | 24 |
| Conductor cross section AWG/kcmil max | 16 |

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Technical data

Connection data

| | |
|-------------------|------------------------|
| Stripping length | 8 mm |
| Connection method | Spring-cage connection |

General

| | |
|---|---|
| No. of channels | 1 |
| Maximum transmission error | < 0.1 % (of final value) |
| Transmission error, typical | < 0.05 % (of final value) |
| Maximum temperature coefficient | < 0.01 %/K |
| Step response (10-90%) | < 600 µs (for 4 mA ... 20 mA step) |
| Status display | Green LED (supply voltage) |
| Inflammability class according to UL 94 | V0 |
| Pollution degree | 2 |
| Surge voltage category | II |
| Housing material | PA 66-FR |
| Color | green |
| Designation | Input/output/power supply |
| Electrical isolation | 300 V _{rms} (Rated insulation voltage (surge voltage category II; pollution degree 2, safe isolation as per EN 61010-1)) |
| | 2.5 kV (50 Hz, 1 min., test voltage) |
| Conformance | CE-compliant, additionally EN 61326 |
| ATEX | # II 3 G Ex nA IIC T4 Gc X |
| UL, USA / Canada | UL applied for |
| Functional Safety (SIL) | SIL 2 according to EN 61508 |

Data communication (bypass)

| | |
|---------------------|------|
| HART function | Yes |
| Protocols supported | HART |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27210120 |
| eCl@ss 4.1 | 27210120 |
| eCl@ss 5.0 | 27210120 |
| eCl@ss 5.1 | 27210120 |
| eCl@ss 6.0 | 27210120 |
| eCl@ss 7.0 | 27210120 |
| eCl@ss 8.0 | 27210120 |

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Classifications

ETIM

| | |
|----------|----------|
| ETIM 2.0 | EC001485 |
| ETIM 3.0 | EC001485 |
| ETIM 4.0 | EC001485 |
| ETIM 5.0 | EC002653 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211506 |
| UNSPSC 7.0901 | 39121008 |
| UNSPSC 11 | 39121008 |
| UNSPSC 12.01 | 39121008 |
| UNSPSC 13.2 | 39121008 |

Approvals

Approvals

Approvals

Functional Safety

Ex Approvals

ATEX

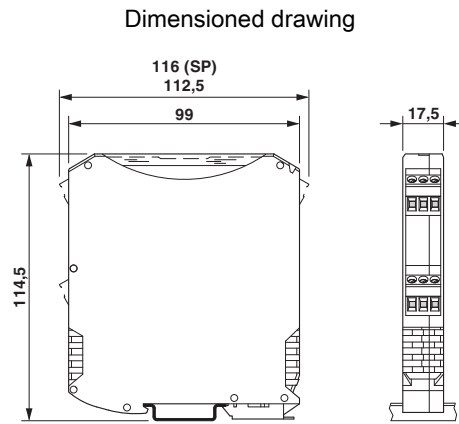
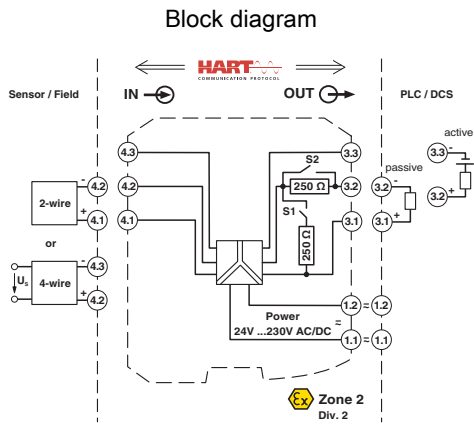
Approvals submitted

Approval details

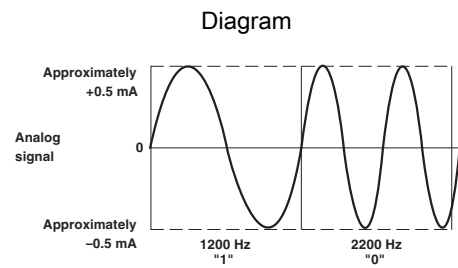
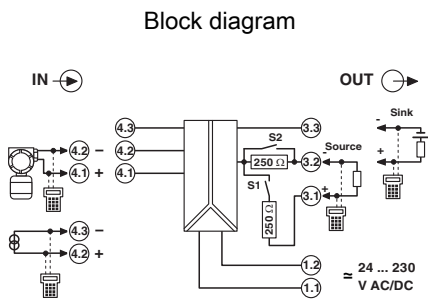
| |
|-------------------|
| Functional Safety |
|-------------------|

Drawings

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Connection example



Signal transmission analog and digital at the same time

Данный компонент на территории Российской Федерации

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