



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Repeater power supply - MACX PL-EX-RPSSI-2I-SP - 2904960

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's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Ex i measuring transducer power supply and input signal conditioner, HART. Transfers supplied or active 4 - 20 mA electrically isolated signals from the Ex area to two loads in the safe area. 4-way electrical isolation, PLd, push-in technology.

The figure shows a version with a screw connection

Product Features



Key commercial data

| | |
|----------------------|----------|
| Packing unit | 1 pc |
| 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

| | |
|--------|----------|
| Width | 12.5 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) |
| Noise immunity | EN 61000-6-2 When being exposed to interference, there may be minimal deviations. |

Repeater power supply - MACX PL-EX-RPSSI-2I-SP - 2904960

Technical data

Ambient conditions

| | |
|----------------------|------|
| Degree of protection | IP20 |
|----------------------|------|

Input data

| | |
|----------------------------|---------------------------------|
| Signal input | Repeater power supply operation |
| Current input signal | 4 mA ... 20 mA |
| Transmitter supply voltage | > 16 V (20 mA) |
| | > 15.1 V (23 mA) |
| Signal input | Signal conditioner operation |
| Current input signal | 4 mA ... 20 mA |
| Voltage drop | approx. 3.9 V |

Output data

| | |
|--|--|
| Signal output | Repeater power supply 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) |
| | ≥ 23 mA (Cable short-circuit in the input) |
| Signal output | 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) |

Power supply

| | |
|--------------------------|---|
| Designation | Repeater power supply operation |
| 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 consumption | < 1.45 W (24 V DC / 20 mA) |

Connection data

| | |
|---------------------------------------|---------------------|
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 1.5 mm ² |
| Conductor cross section AWG min. | 24 |

Repeater power supply - MACX PL-EX-RPSSI-2I-SP - 2904960

Technical data

Connection data

| | |
|----------------------------------|--------------------|
| Conductor cross section AWG max. | 16 |
| Stripping length | 8 mm |
| Connection method | Push-in connection |

General

| | |
|---|---|
| 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 μ s (for 4 mA ... 20 mA step) |
| Status display | Green LED (PWR supply voltage) |
| Inflammability class according to UL 94 | V0 |
| Electromagnetic compatibility | Conformance with EMC Directive 2004/108/EC |
| Housing material | PA 66-FR |
| Color | yellow |
| 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) |
| Designation | Input/output |
| Electrical isolation | 375 V (Peak value in accordance with EN 60079-11) |
| Designation | Input/power supply |
| Electrical isolation | 375 V (Peak value in accordance with EN 60079-11) |
| Designation | Output 1/output 2 |
| Electrical isolation | 1.5 kV AC (50 Hz, 1 min., test voltage) |
| Conformance | CE-compliant, additionally EN 61326 |
| ATEX | # 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 |
| IECEX | [Ex ia Ga] IIC/IIB |
| | [Ex ia Da] |
| | Ex nA [ia Ga] IIC/IIB T4 Gc |
| UL, USA / Canada | UL 61010 |
| | Class I Div 2; IS for Class I, II, III Div 1 |

Data communication (bypass)

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

Safety data

Repeater power supply - MACX PL-EX-RPSSI-2I-SP - 2904960

Technical data

Safety data

| | |
|--------------------------------------|---------------------------------|
| Operation | Repeater power supply operation |
| Max. output voltage U_o | 25.2 V |
| Max. output current I_o | 93 mA |
| Max. output power P_o | 587 mW |
| Group | IIC |
| Max. external inductivity L_o | 2 mH |
| Max. external capacity C_o | 107 nF |
| Group | IIB |
| Max. external inductivity L_o | 4 mH |
| Max. external capacity C_o | 820 nF |
| Safety-related maximum voltage U_m | 253 V AC (125 V DC) |
| Operation | 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 |

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 |

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 |

Repeater power supply - MACX PL-EX-RPSSI-2I-SP - 2904960

Classifications

UNSPSC

| | |
|--------------|----------|
| UNSPSC 11 | 39121008 |
| UNSPSC 12.01 | 39121008 |
| UNSPSC 13.2 | 39121008 |

Approvals

Approvals

Approvals


UL Listed / cUL Listed / GL / cULus Listed

Ex Approvals

IECEX / ATEX / UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Listed 

cUL Listed 

GL

cULus Listed 

Drawings

Repeater power supply - MACX PL-EX-RPSSI-2I-SP - 2904960

Block diagram

