

Repeater power supply - MINI MCR-SL-RPS-I-I-SP - 2864752

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MCR repeater power supplies, spring-cage connection, input signal: (0)4..20 mA, output signal: (0)4..20 mA

The figure shows a version with a screw connection

Product Features

- ✓ Power supply possible via the foot element (TBUS)
- ✓ Can also be used as an isolator without supply
- ✓ 3-way isolation
- ✓ Supply of 2-wire and passive 3-wire sensors
- ✓ Highly-compact repeater power supplies for electrical isolation, amplification, and filtering of standard analog signals



Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	65.1 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
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Dimensions

Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm

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Technical data

Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

Input data

Description of the input	Current input (sensor circuit)
Current input signal	4 mA ... 20 mA (repeater power supply and isolator operation)
	0 mA ... 20 mA (isolator operation)
Max. input current	28 mA
Input resistance current input	approx. 50 Ω
Transmitter supply voltage	U _B - max. 4.5 V for load 0 mA ... 20 mA
Transmitter supply voltage range	14.7 V DC ... 25.5 V DC

Output data

Output name	Current output
Current output signal	4 mA ... 20 mA (repeater power supply and isolator operation)
	0 mA ... 20 mA (isolator operation)
Max. output current	28 mA
Load/output load current output	≤ 500 Ω (at I = 20 mA)
Transmission Behavior	1:1 to input signal

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 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))
Power consumption	< 900 mW (at 24 V DC and in repeater power supply operation)
	< 600 mW (at 24 V DC and in isolator operation)

Connection data

Connection method	Spring-cage connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max.	12
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Stripping length	8 mm

General

No. of channels	1
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Technical data

General

Maximum transmission error	≤ 0.2 % (of final value)
Transmission error, typical	≤ 0.1 % (of final value)
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	< 0.002 %/K
Limit frequency (3 dB)	approx. 100 Hz
Step response (10-90%)	approx. 3.5 ms
Protective circuit	Transient protection
Electrical isolation	Basic insulation according to EN 61010
Surge voltage category	II
Pollution degree	2
Rated insulation voltage	50 V AC/DC
Test voltage, input/output/supply	1.5 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 50081-2
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Color	green
Housing material	PBT
Mounting position	any
Assembly instructions	To bridge the supply voltage, the DIN rail connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, Order No. 2869728) can be used. 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 Recognized
	Class I, Div. 2, Groups A, B, C, D T5
GL	GL EMC 2 D

EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	10 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	10 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	10 %

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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	EC001485

UNSPSC

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

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / GL / cULus Recognized

Ex Approvals


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


Approvals submitted

Approval details


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Approvals

UL Recognized 

cUL Recognized 

GL

cULus Recognized 

Accessories

Accessories

DIN rail connector

DIN rail connector - ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

Marking material

Transparent cover - MINI MCR DKL - 2308111



Fold up transparent cover for MINI MCR modules with additional labeling option using insert strips and flat Zack marker strip 6.2 mm

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Accessories

Marking label - MINI MCR-DKL-LABEL - 2810272



Label for extended marking of MINI MCR modules in connection with the MINI MCR-DKL

Power module

Power terminal block - MINI MCR-SL-PTB - 2864134



MCR power terminal block for supplying several MINI Analog modules via the DIN rail connector, with screw connection, maximum current consumption of up to 2 A

Power terminal block - MINI MCR-SL-PTB-SP - 2864147



MCR power terminal block for supplying several MINI Analog modules via the DIN rail connector, with spring-cage connection, maximum current consumption of up to 2 A

Power supply

Power supply unit - MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



Primary-switched MINI POWER supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

Power supply unit - MINI-PS-100-240AC/24DC/1.5/EX - 2866653



Primary-switched power supply MINI POWER for DIN rail mounting, input: 1-phase, output: 24 V DC/1,5 A, for the potentially explosive area

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Accessories

System adapter

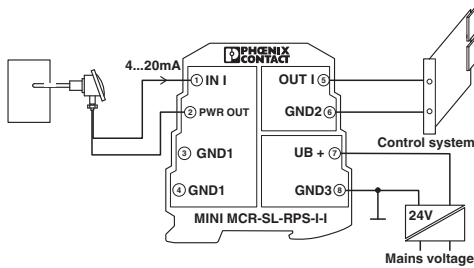
System adapter - MINI MCR-SL-V8-FLK 16-A - 2811268



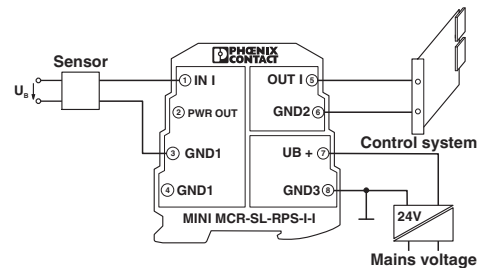
Eight MINI analog signal converters with screw connection method can be connected to a control system using a system adapter and system cabling with a minimum of wiring and very low error risk.

Drawings

Application drawing

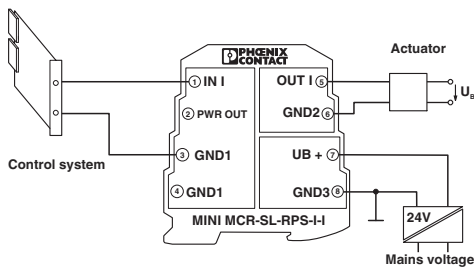


Application drawing



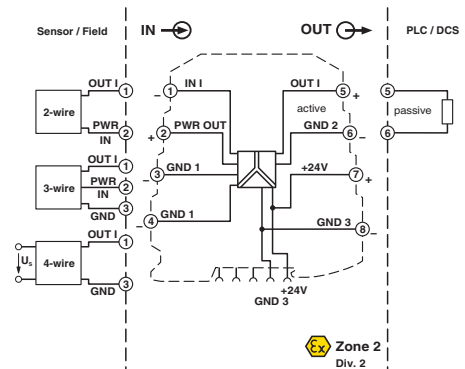
Repeater power supply operation with a passive sensor

Application drawing



Isolator operation with an active sensor

Block diagram



Isolator operation at the analog output module

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Dimensioned drawing

