

MINI MCR-SL-RPSS-I-I

Order No.: 2864079




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MCR repeater power supply with HART transmission, input signal 4...20 mA, output signal 4...20 mA, with screw connection.



Commercial data

GTIN (EAN)	 4 046356 046428
sales group	H522
Pack	1 pcs.
Customs tariff	85437090
Catalog page information	Page 359 (IF-2011)

Product notes

WEEE/RoHS-compliant since: 12/20/2006



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Product description

The 6.2 mm wide MINI MCR-SL-RPSS-I-I... repeater power supply supplies the transmitter in the field in case of simultaneous galvanic 3-way separation between input, output and supply.

HART data protocols can be transmitted bidirectionally. The module can be used in both isolator and repeater power supply operation.

On the input and output side, the analog standard signals 0...20 mA or 4...20 mA are available, electrically isolated.

Voltage (20.4 V DC to 30 V DC) can be supplied through connection terminal blocks on the modules or in conjunction with the DIN rail connector.

Technical data

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)
Input resistance current input	Approx. 50 Ω
Transmitter supply voltage	16.5 V

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	> 21 mA (22.5 mA, typical)
Load/output load current output	\leq 500 Ω (at I = 20 mA)

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	20.4 V DC ... 30 V DC (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)
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	Screw connection
Conductor cross section solid min.	0.14 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12
Stripping length	12 mm
Screw thread	M3

General data	
Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm
Maximum transmission error	≤ 0.2 % (of final value)
Transmission error, typical	≤ 0.1 % (of final value)
Maximum temperature coefficient	< 0.005 %/K
Temperature coefficient, typical	< 0.002 %/K
Limit frequency (3 dB)	> 125 Hz (typ.)
Step response (10-90%)	< 2 ms (typ.)
Protective circuit	Transient protection
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20
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 89/336/EC
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2:2005
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	Ex II 3 G Ex nA II T4 X

Data communication (bypass)

Limit frequency (3 dB)	Approx. 2.5 Hz
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Certificates / Approvals

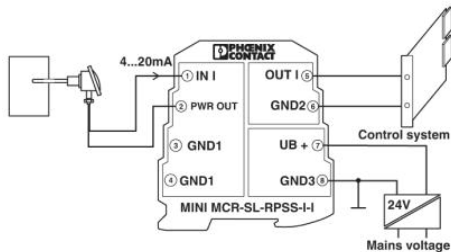
Certification Ex: PxC-EX

Accessories

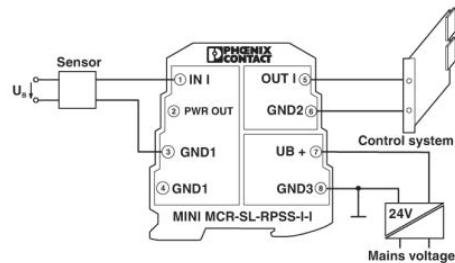
Item	Designation	Description
General		
2869728	ME 6,2 TBUS-2 1,5/5-ST-3,81 GN	DIN rail connector (TBUS), 5-pos., for bridging the supply voltage, can be snapped onto NS 35/... DIN rails according to EN 60715
2864134	MINI MCR-SL-PTB	MCR power terminal block for supplying several MINI Analog modules via the DIN rail connectors, with screw connection, current consumption up to max. 2 A
2864147	MINI MCR-SL-PTB-SP	MCR power terminal block for supplying several MINI-ANALOG modules via the DIN rail connectors, with spring-cage connection, current consumption up to max. 2 A
2811268	MINI MCR-SL-V8-FLK 16-A	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.
2866653	MINI-PS-100-240AC/24DC/1.5/EX	DIN rail power supply unit, primary-switched mode, slim design, output: 24 V DC / 1.5 A, ATEX approval
2866983	MINI-SYS-PS-100-240AC/24DC/1.5	DIN rail power supply unit, primary-switched mode, slim design, output: 24 V DC / 1.5 A

Diagrams/Drawings

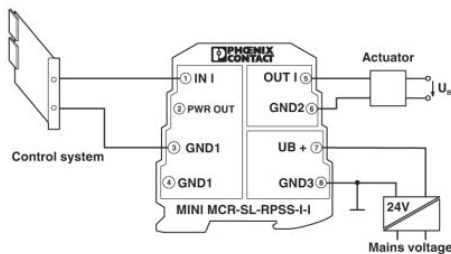
Application drawing



Repeater power supply operation with a passive sensor

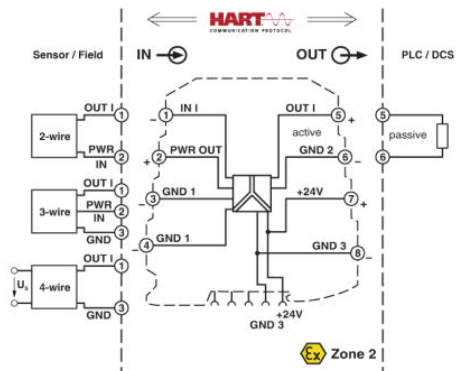


Isolator operation with an active sensor

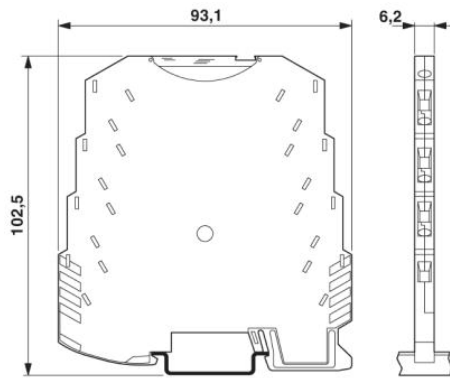


Isolator operation at the analog output module

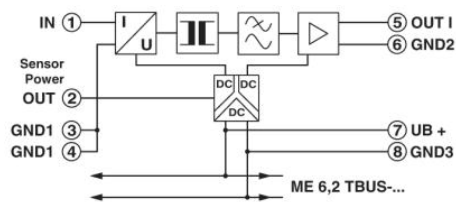
Block diagram



Dimensioned drawing



Circuit diagram



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