

MINI MCR-SL-IDS-I-I - Output signal conditioner



2905577

<https://www.phoenixcontact.com/us/products/2905577>

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3-way output signal conditioner for transmitting 0/4 ... 20 mA signals from the controller to a load located in the field with simultaneous 3-way electrical isolation between the input, output, and supply, with screw connection

Product description

The 6.2 mm wide MINI MCR-SL-IDS-I-I... output signal conditioner transmits 0/4 - 20 mA signals from the controller to a load located in the field (I/P converters, control valves, indicators) with simultaneous 3-way electrical isolation between the input, output, and supply.

HART data protocols can be transmitted bidirectionally.

Electrically isolated 0 ... 20 mA or 4 ... 20 mA standard analog signals are available on the input and output side.

Power (19.2 V DC ... 30 V DC) can either be supplied via the connection terminal blocks of the modules or in conjunction with the DIN rail connector.

Commercial data

Item number	2905577
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C403
Product key	DK1132
GTIN	4046356966290
Weight per piece (including packing)	88 g
Weight per piece (excluding packing)	87.7 g
Customs tariff number	85437090
Country of origin	DE

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Technical data

Notes

Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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Product properties

Product type	Repeater power supply
Product family	MINI Analog
No. of channels	1

Electrical properties

Electrical isolation	3-way isolation
Electrical isolation between input and output	yes
Limit frequency (3 dB)	> 175 Hz
Protective circuit	Transient protection
Signal transmission behavior	In = Out
Step response (10-90%)	< 2 ms
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	< 0.01 %/K
Maximum transmission error	≤ 0.1 % (of final value)

Electrical isolation

Overvoltage category	II
Pollution degree	2

Electrical isolation Input/output/power supply IEC/EN 61010

Standards/regulations	IEC/EN 61010
Rated insulation voltage	50 V AC/DC
Test voltage	1.5 kV AC (50 Hz, 60 s)
Insulation	Basic insulation

Supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (The DIN rail connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, item no. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail in accordance with EN 60715)
Power consumption	< 600 mW (at 24 V DC)

Input data

Signal: Current

Number of inputs	1
Current input signal	0 mA ... 20 mA

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	4 mA ... 20 mA
Max. current input signal	20 mA
Input voltage limitation	< 2 V (20 mA)

Output data

Signal: Current

Number of outputs	1
Current output signal	0 mA ... 20 mA 4 mA ... 20 mA
Load/output load current output	≤ 800 Ω (at 20 mA)
Ripple	< 20 mV _{rms}

Connection data

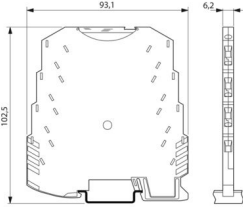
Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross-section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross-section AWG	26 ... 12

Interfaces

Data communication (bypass)

HART function	HART transparency
Protocols supported	HART
Limit frequency (3 dB)	2.5 Hz

Dimensions

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	101.2 mm

Material specifications

Color	green (RAL 6021)
Housing material	PBT
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

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant
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UL, USA/Canada

Identification	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

Noise emission

Standards/regulations	EN 61000-6-4
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Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
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Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	3 %

Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	3 %

Surge current load (surge)

Standards/regulations	EN 61000-4-5
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Surge current load (surge)

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Comments	Criterion B
Conducted interference	
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	3 %

Standards and regulations

Electrical isolation	3-way isolation
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Mounting

Mounting type	DIN rail mounting
Assembly note	The DIN rail connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, item no. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail in accordance with EN 60715.
Mounting position	any

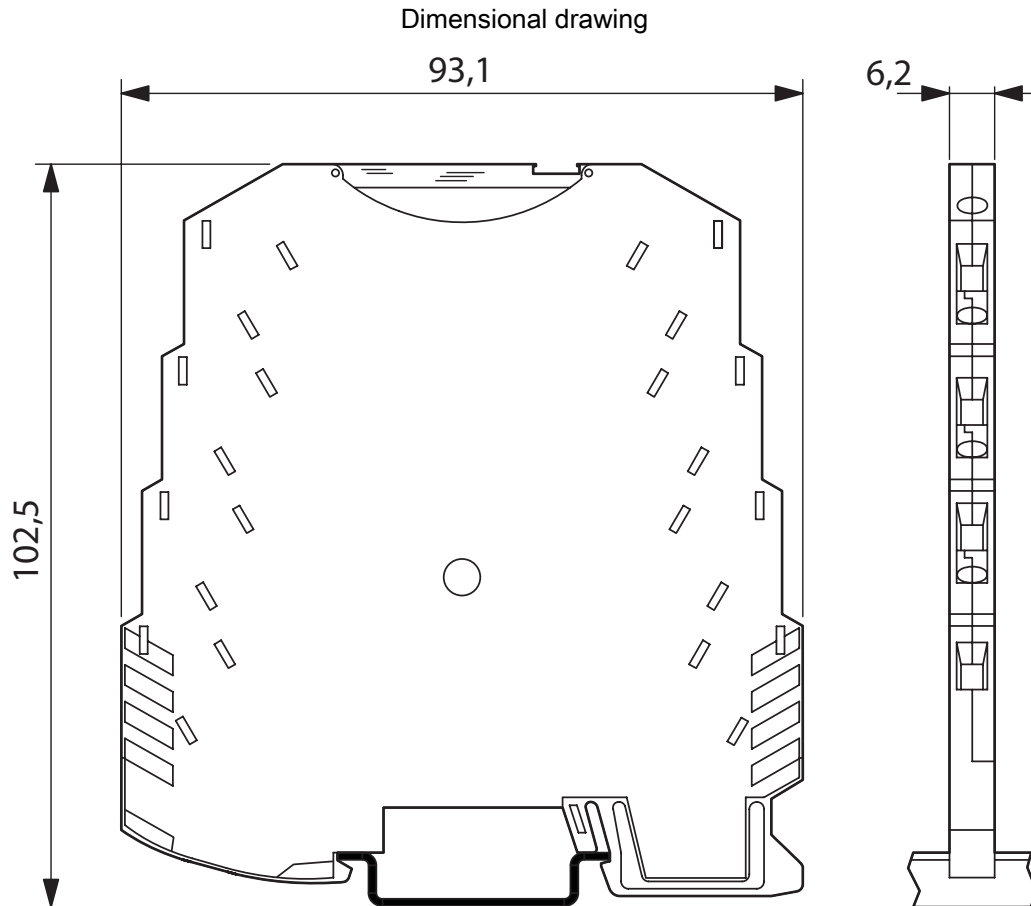
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Drawings

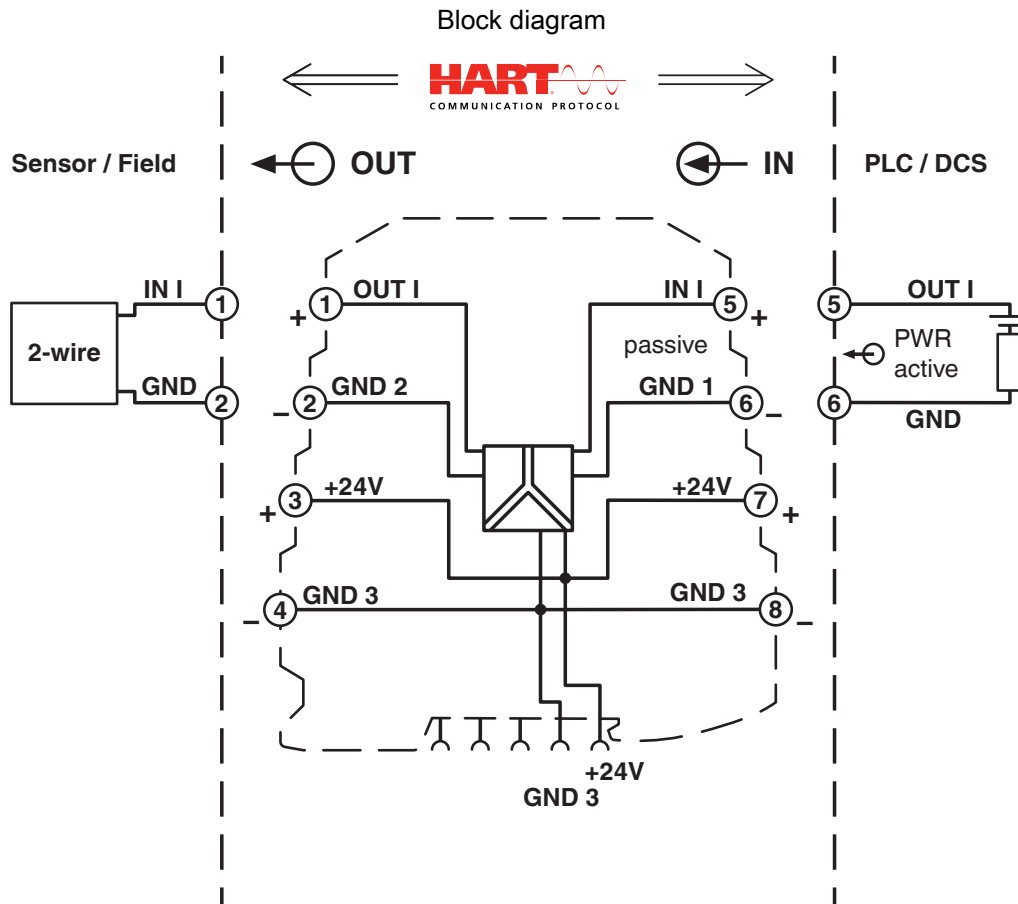


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Approvals

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 **UL Listed**
Approval ID: E238705

 **cUL Listed**
Approval ID: E238705

DNV
Approval ID: TAA000020N

 **cUL Recognized**
Approval ID: E199827

 **UL Recognized**
Approval ID: E199827

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Classifications

ECLASS

ECLASS-13.0	27210120
ECLASS-15.0	27210120

ETIM

ETIM 10.0	EC002653
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UNSPSC

UNSPSC 21.0	39121000
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol(CAS: 79-94-7)
SCIP	635dca74-920d-42ee-a421-9ee4157137aa

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