

# 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	$\leq 800 \Omega$ (at 20 mA)
Ripple	< 20 mV <sub>rms</sub>

## Connection data

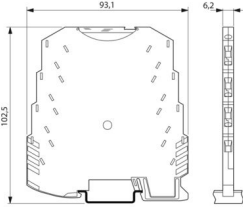
Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 12

## 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

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## 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

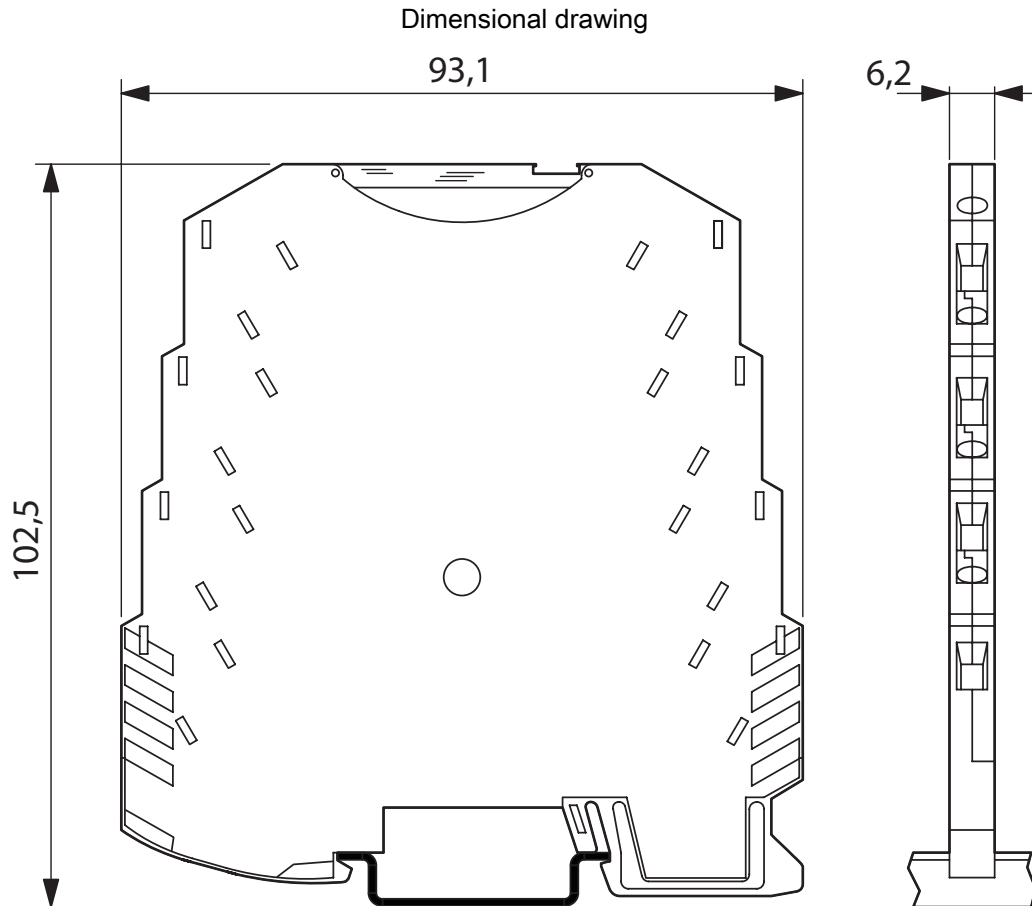
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## Drawings

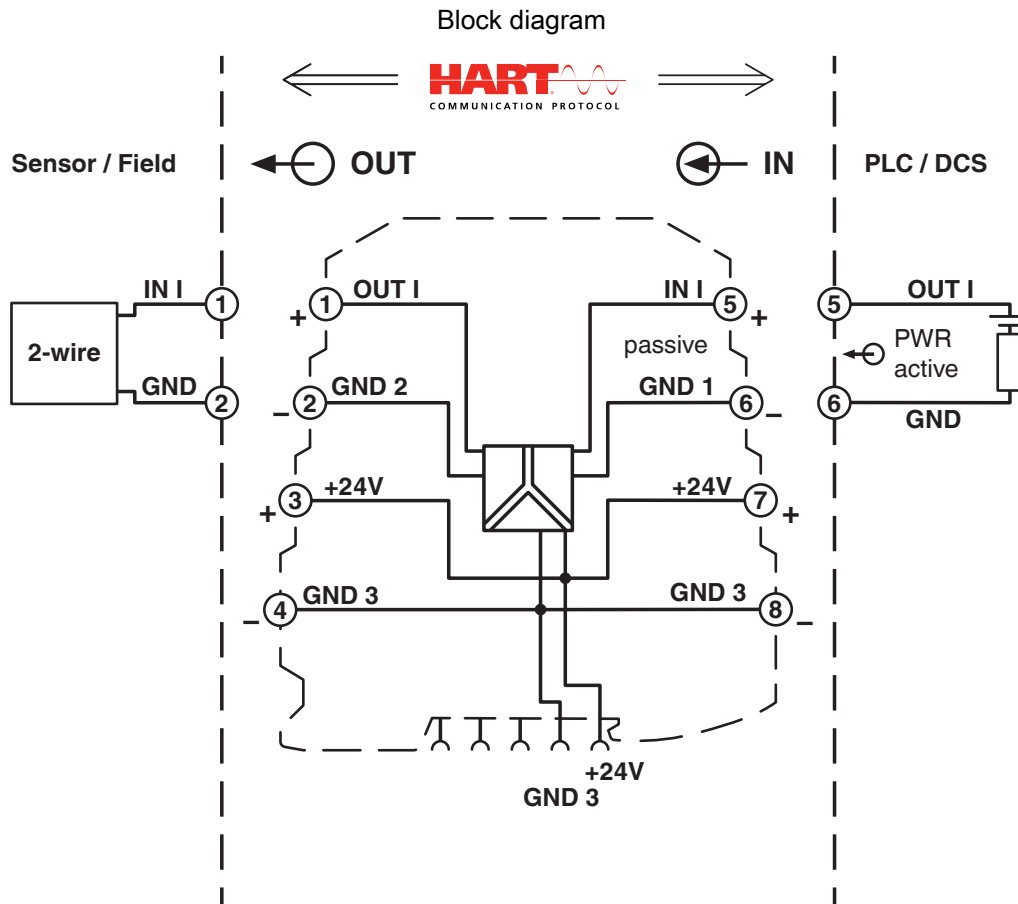


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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2905577>

 **UL Listed**  
Approval ID: E238705

 **cUL Listed**  
Approval ID: E238705

 **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)
SCIP	635dca74-920d-42ee-a421-9ee4157137aa

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