

# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

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>)




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.



## Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 966290
GTIN	4046356966290
Weight per Piece (excluding packing)	87.700 g
Custom tariff number	85437090
Country of origin	Germany
Note	Made to Order (non-returnable)

## Technical data

### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
-------------------------	---

### Dimensions

Width	6.2 mm
Height	93.1 mm
Depth	101.2 mm

# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

## Technical data

### Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.

### Input data

Number of inputs	1
Current input signal	4 mA ... 20 mA
	0 mA ... 20 mA
Max. input current	20 mA
Input voltage limitation	< 2 V (20 mA)

### Output data

Output name	Current output
Number of outputs	1
Current output signal	4 mA ... 20 mA
	0 mA ... 20 mA
Load/output load current output	≤ 800 Ω (at 20 mA)
Ripple	< 20 mV <sub>rms</sub>
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	< 600 mW (at 24 V DC)

### Connection data

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross section solid	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

### General

No. of channels	1
Maximum transmission error	≤ 0.1 % (of final value)
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	< 0.01 %/K
Limit frequency (3 dB)	> 175 Hz
Step response (10-90%)	< 2 ms

# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

## Technical data

### General

Protective circuit	Transient protection
Electrical isolation	Basic insulation according to EN 61010
Overvoltage category	II
Degree of pollution	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
Noise emission	EN 61000-6-4
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 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC
GL	GL applied for
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

### EMC data

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

### Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Standards/regulations	EN 61000-4-2
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3

# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

## Technical data

### Standards and Regulations

	EN 61000-4-4
	EN 61000-4-5
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Basic insulation according to EN 61010
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC
GL	GL applied for
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

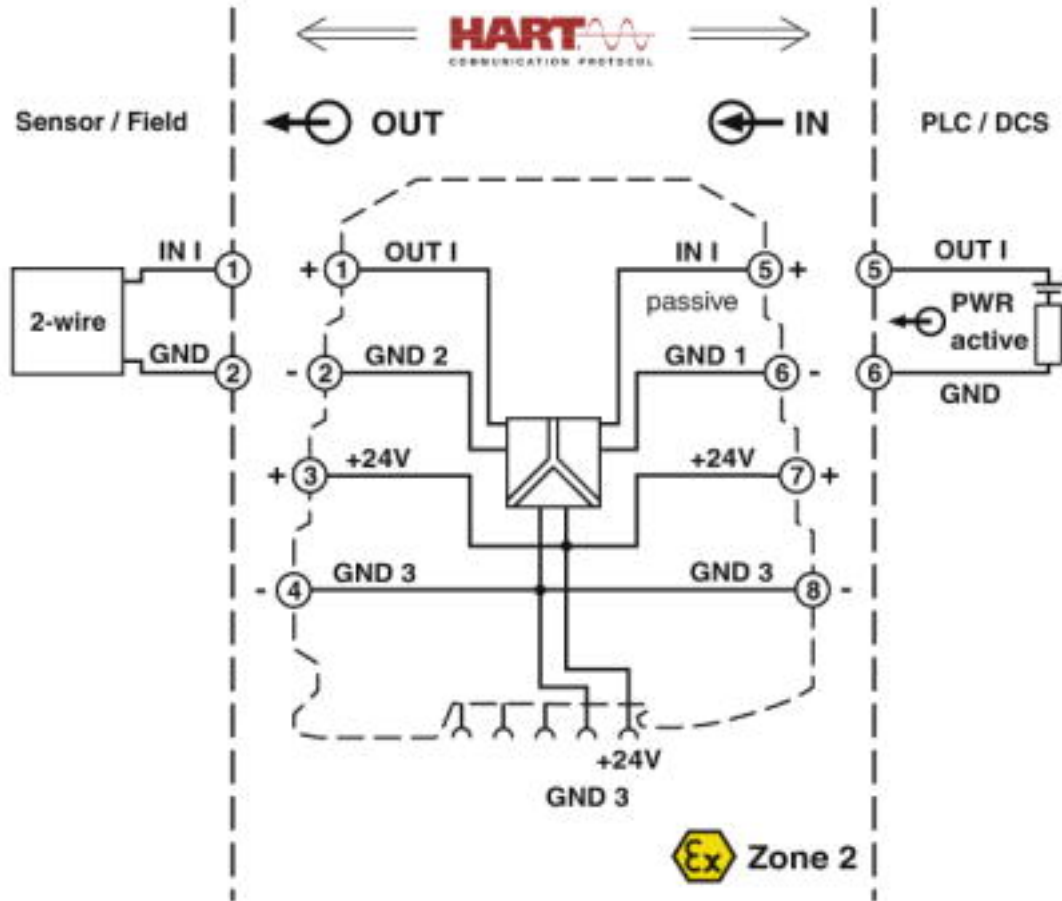
### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

## Drawings

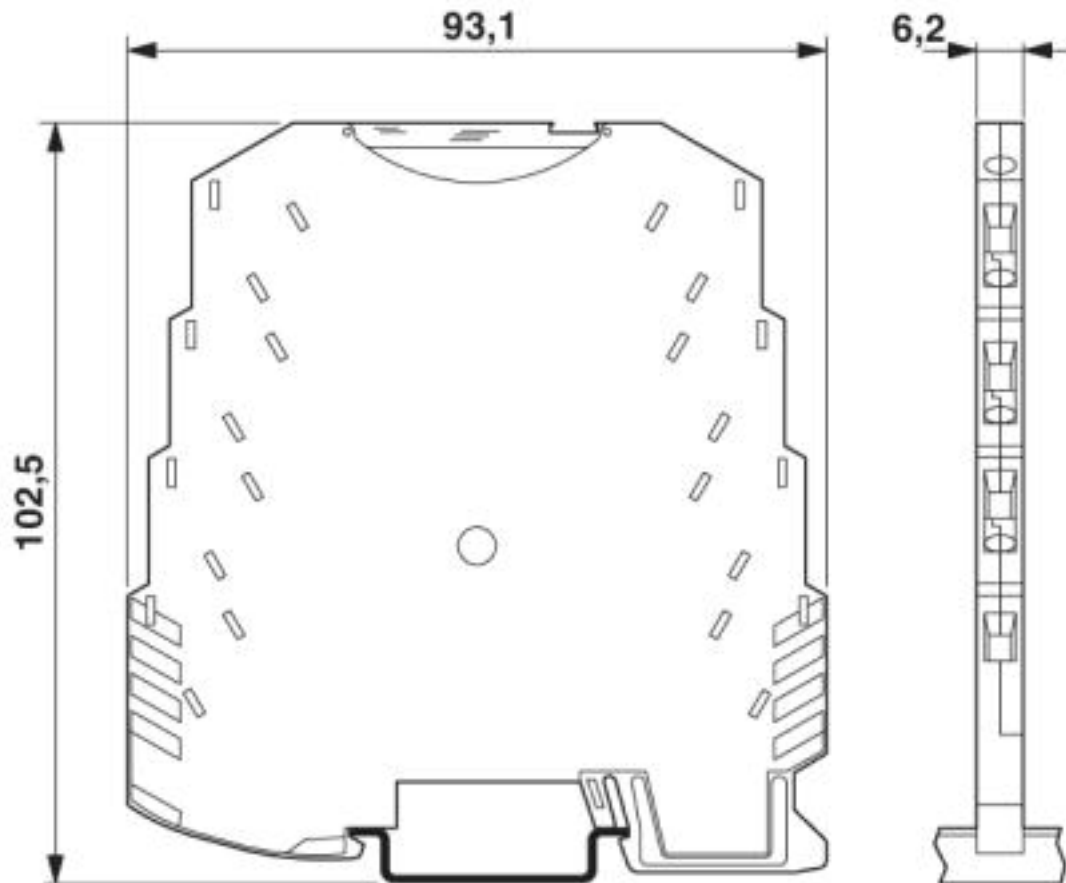
# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

Block diagram

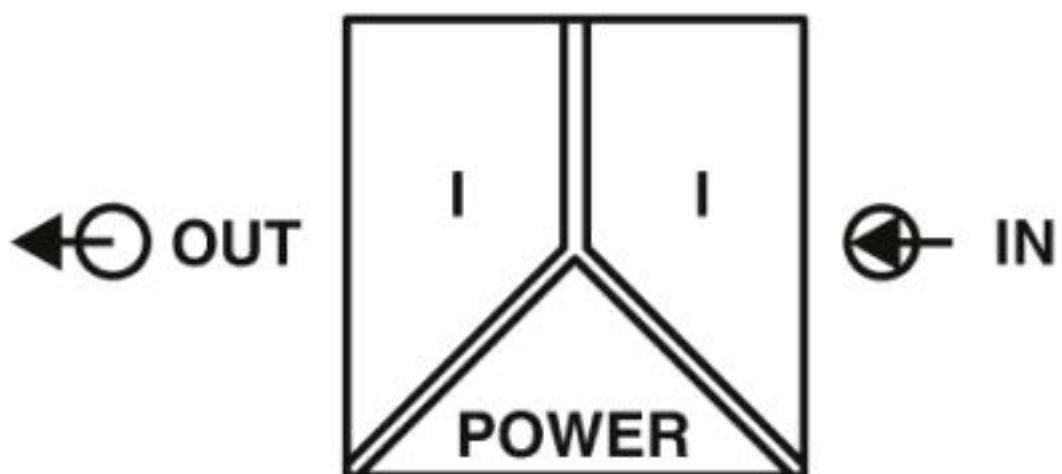


# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

Dimensional drawing



Pictogram



# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

## Classifications

### eCl@ss

eCl@ss 4.0	27210100
eCl@ss 4.1	27210100
eCl@ss 5.0	27210100
eCl@ss 5.1	27210100
eCl@ss 6.0	27210100
eCl@ss 7.0	27210120
eCl@ss 8.0	27210120
eCl@ss 9.0	27210120

### ETIM

ETIM 4.0	EC002653
ETIM 5.0	EC002653
ETIM 6.0	EC002653
ETIM 7.0	EC002653

### UNSPSC

UNSPSC 13.2	39121008
UNSPSC 18.0	39121008
UNSPSC 19.0	39121008
UNSPSC 20.0	39121008
UNSPSC 21.0	39121008

## Approvals

### Approvals

---

#### Approvals

UL Listed / cUL Listed / EAC / DNV GL / cULus Listed

---

#### Ex Approvals

UL Recognized / cUL Recognized / ATEX / cULus Recognized

---

### Approval details

UL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
-----------	--	---	---------------

# Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

## Approvals

cUL Listed		<a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a>	FILE E 238705
------------	--	---	---------------

EAC			RU C- DE.A*30.B.01082
-----	--	--	--------------------------

DNV GL		<a href="https://approvalfinder.dnvgl.com/">https://approvalfinder.dnvgl.com/</a>	TAA000020N
--------	--	---	------------

cULus Listed			
--------------	--	--	--

## Accessories

### Accessories

#### DIN rail connector

DIN rail bus connectors - 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.

#### 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 feed-in terminal for supplying several MINI Analog modules via a DIN rail connector, with spring-cage connection, maximum current consumption of up to 2 A. Replacement part: 2902067 MINI MCR-2-PTB-PT.



## Output signal conditioner - MINI MCR-SL-IDS-I-I - 2905577

### Accessories

---

#### 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

---

#### Programming cable

Cable adapter - GW HART USB MODEM - 1003824



USB HART modem cable for communication between a PC and HART devices, cable length: 1m.

---