

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 documentation. Our general terms of use for downloads are valid.



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, with spring-cage connection.
Replacement part: 2905577 MINI MCR-SL-IDS-I-I.

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	2905578
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C403
Product key	CK1212
Catalog page	Page 100 (C-7-2015)
GTIN	4046356966283
Weight per piece (including packing)	80.5 g
Weight per piece (excluding packing)	80.5 g
Customs tariff number	85437090
Country of origin	DE

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



2905578

<https://www.phoenixcontact.com/us/products/2905578>

Technical data

Product properties

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

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

Rated insulation voltage	50 V AC/DC
Electrical isolation	Basic insulation in accordance with EN 61010
Limit frequency (3 dB)	> 175 Hz
Test voltage, input/output/supply	1.5 kV AC (50 Hz, 60 s)
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)

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

Number of inputs	1
Current input signal	4 mA ... 20 mA 0 mA ... 20 mA
Max. current input signal	20 mA
Input voltage limitation	< 2 V (20 mA)
Input resistance current input	50 Ω

Output data

Signal: Current

Number of outputs	1
Current output signal	4 mA ... 20 mA

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



2905578

<https://www.phoenixcontact.com/us/products/2905578>

	0 mA ... 20 mA
Load/output load current output	$\leq 800 \Omega$ (at 20 mA)
Ripple	$< 20 \text{ mV}_{\text{rms}}$

Connection data

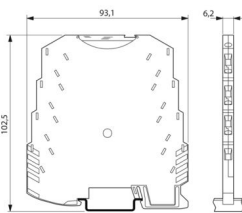
Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 12

Interfaces

Data communication (bypass)

HART function	Yes
Limit frequency (3 dB)	2.5 Hz

Dimensions

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	102.5 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

Approvals

CE

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



2905578

<https://www.phoenixcontact.com/us/products/2905578>

Certificate	CE-compliant
-------------	--------------

ATEX

Identification	II 3 G Ex nA IIC T4 Gc X
----------------	--------------------------

UL, USA/Canada

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

GL

Identification	applied for
----------------	-------------

EMC data

Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

Electrostatic discharge

Standards/regulations	EN 61000-4-2
-----------------------	--------------

Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
----------	---

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
-----------------------	--------------

Surge current load (surge)

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

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



2905578

<https://www.phoenixcontact.com/us/products/2905578>

Electrical isolation	Basic insulation in accordance with EN 61010
----------------------	--

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

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

2905578

<https://www.phoenixcontact.com/us/products/2905578>



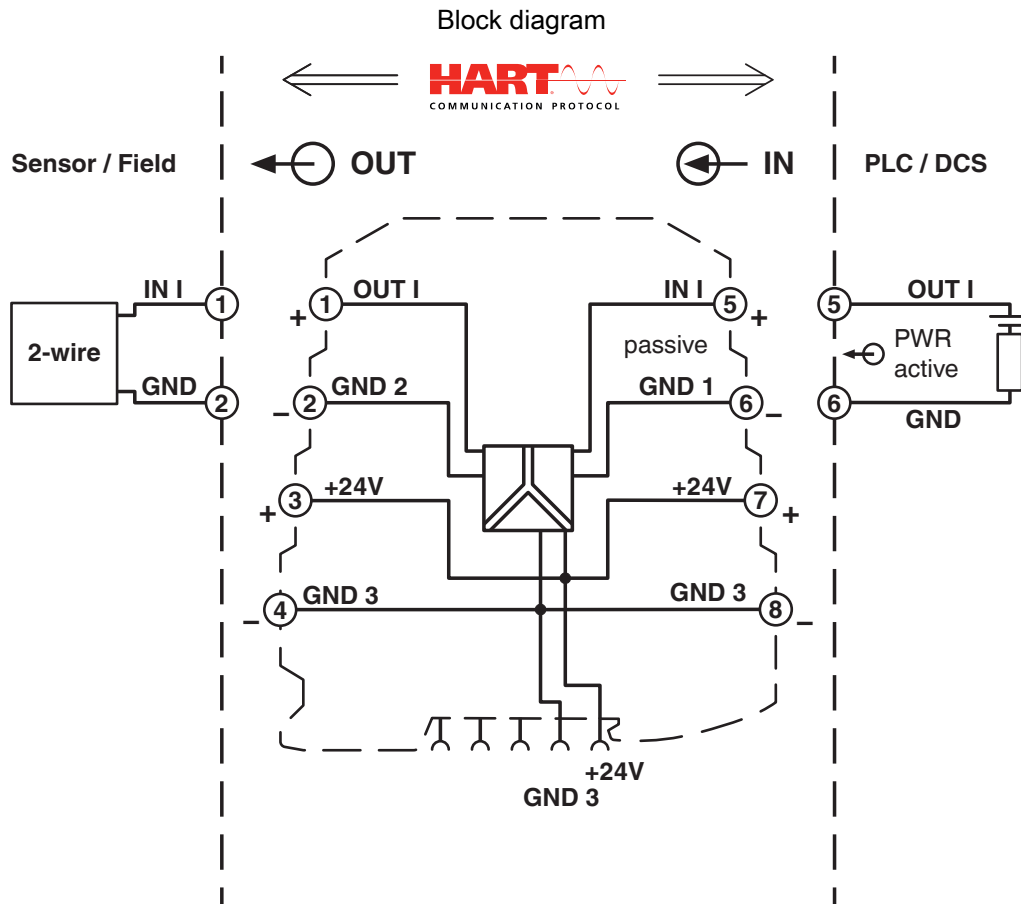
Drawings



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

2905578

<https://www.phoenixcontact.com/us/products/2905578>



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



2905578

<https://www.phoenixcontact.com/us/products/2905578>

Classifications

ECLASS

ECLASS-11.0	27210120
-------------	----------

Environmental product compliance

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.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

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



2905578

<https://www.phoenixcontact.com/us/products/2905578>

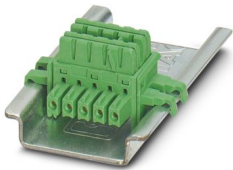
Accessories

ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - DIN rail bus connectors

2869728

<https://www.phoenixcontact.com/us/products/2869728>

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



MINI MCR-SL-PTB - Power terminal block

2864134

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



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

2905578

<https://www.phoenixcontact.com/us/products/2905578>



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

2866983

<https://www.phoenixcontact.com/us/products/2866983>



Please use the following item in new systems: 2904614

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

GW HART USB MODEM - Cable adapter

1003824

<https://www.phoenixcontact.com/us/products/1003824>



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

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



2905578

<https://www.phoenixcontact.com/us/products/2905578>

SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/us/products/1205053>



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com