

MINI MCR-SL-2CP-I-I - Loop-powered isolators



2864655

<https://www.phoenixcontact.com/in/products/2864655>

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MCR passive isolator, 2-channel, for the electrical isolation of current signals without auxiliary power, with screw connection

Your advantages

- Voltage drop at isolating amplifier of just 1.7 V
- Does not require additional auxiliary voltage
- Two channels on a design width of just 6.2 mm
- Highly compact 2-conductor passive isolators for the electrical isolation and filtering of standard analog signals
- Supplied by an input loop

Commercial Data

Item number	2864655
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	CK1
Product Key	CK1213
Catalog Page	Page 101 (C-7-2015)
GTIN	4017918974893
Weight per Piece (including packing)	87.8 g
Weight per Piece (excluding packing)	61 g
Customs tariff number	85437090
Country of origin	DE

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Technical Data

Product properties

Product type	Passive isolators
Product family	MINI Analog
No. of channels	2

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

No. of channels	2
Electrical isolation	2-way isolation
Electrical isolation between input and output	yes
Limit frequency (3 dB)	75 Hz
Maximum power dissipation for nominal condition	64 mW
Signal transmission behavior	In = Out
Step response (10-90%)	5 ms (at 600 Ω load)
Maximum temperature coefficient	≤ 0.002 %/K (of measured value / 100 Ω load)
Temperature coefficient, typical	< 0.002 %/K (of measured value / 100 Ω load)
Maximum transmission error	≤ 0.1 % (of final value)
Additional error, load-dependent	< 0.03 % (of measured value / 100 Ω load)

Electrical isolation Input/output

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

Supply

Supply voltage range	loop-powered, no external supply necessary
Power consumption	34 mW (per channel)

Input data

Signal: Current

Number of inputs	2
Configurable/programmable	no
Max. voltage input signal	18 V
Current input signal	0 mA ... 20 mA 4 mA ... 20 mA
Max. current input signal	40 mA
Response current	approx. 190 μA
Input voltage limitation	< 2 V (20 mA)
Voltage dissipation	1.9 V (I = 20 mA)

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Output data

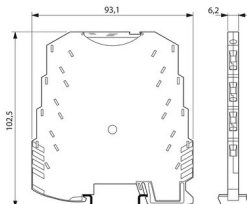
Signal: Current

Number of outputs	2
Configurable/programmable	no
Current output signal	0 mA ... 20 mA 4 mA ... 20 mA
Load/output load current output	< 600 Ω (at I = 20 mA output signal)
Ripple	< 10 mV _{rms} (at 600 Ω)

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

Dimensions

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	101.2 mm

Material specifications

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
Housing material	PBT

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

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Approvals

CE

Certificate	CE-compliant
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UKCA

Certificate	UKCA-compliant
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UL, USA/Canada

Identification	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D

Shipbuilding approval

Certificate	DNV GL TAA00000BW
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DNV GL data

Temperature	B
Humidity	B
Vibration	B
EMC	B
Enclosure	A

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
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Electrostatic discharge

Comments	Criterion B
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Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Evaluation criterion	A

Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Evaluation criterion	B

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
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Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Evaluation criterion	A

Standards and regulations

Electrical isolation	2-way isolation
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Mounting

Mounting type	DIN rail mounting
Assembly instructions	The DIN rail connector can be used for bridging the supply voltage. It can be snapped onto a 35 mm EN 60715 DIN rail.
Mounting position	any

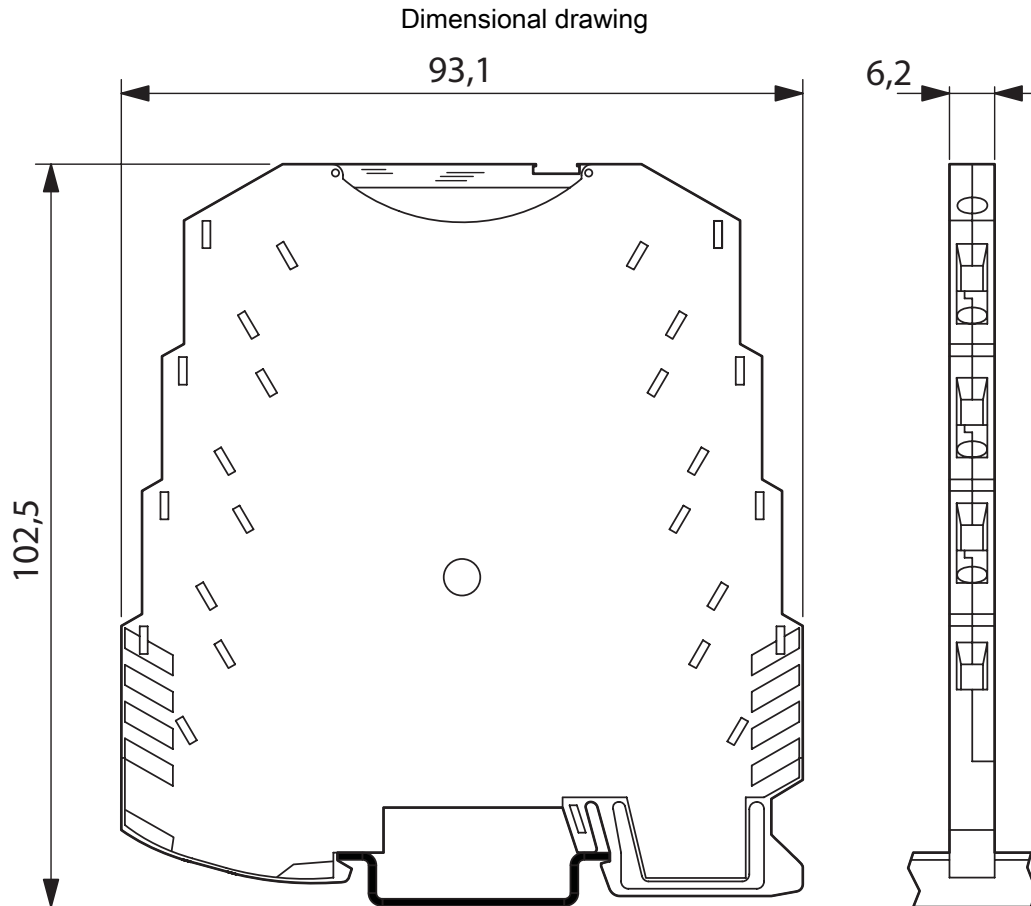
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Drawings

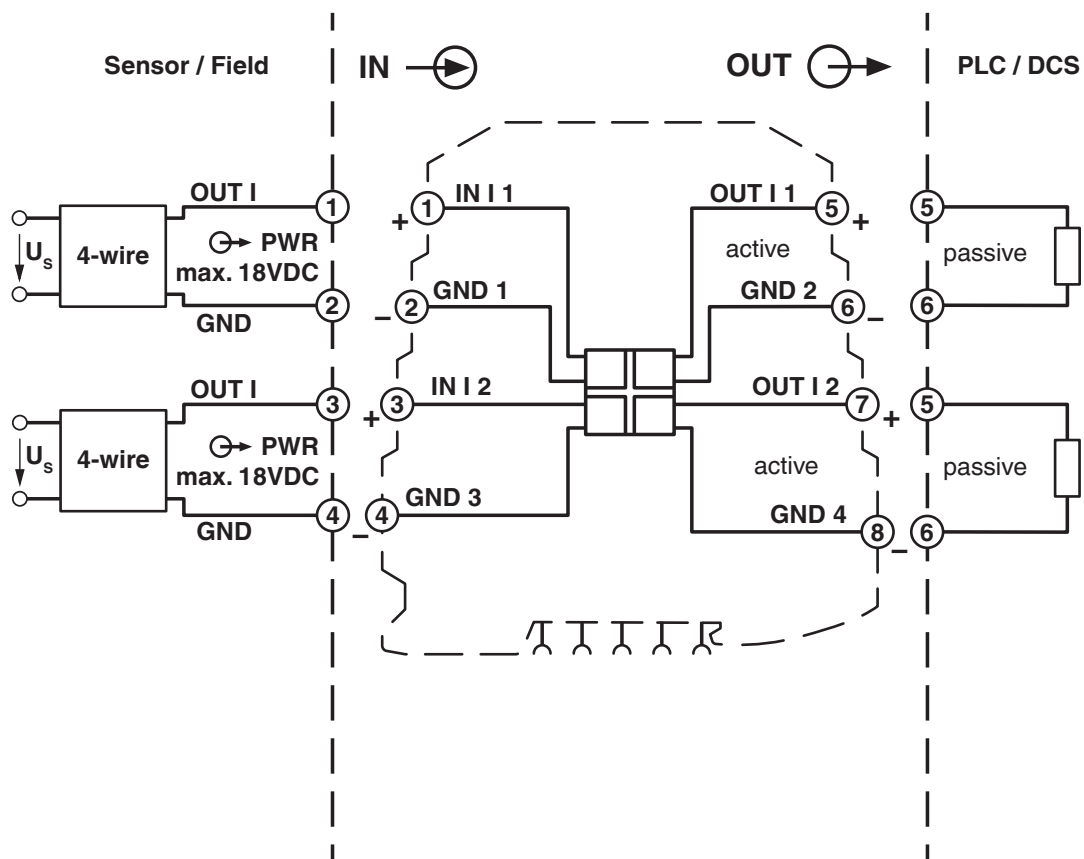


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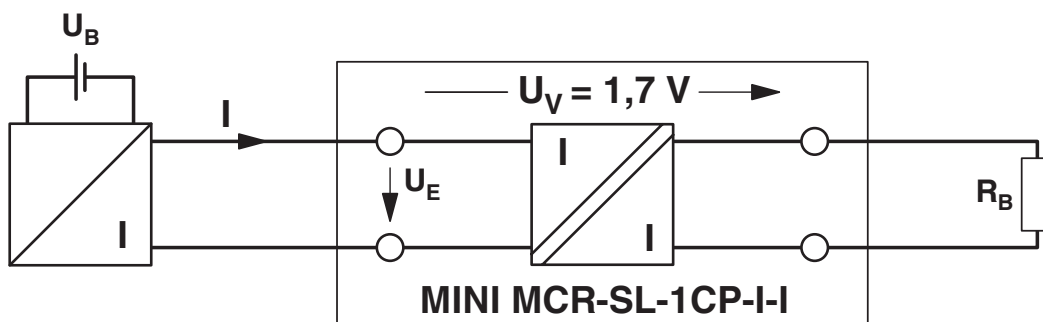
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Block diagram



Application drawing



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Approvals



cUL Recognized
Approval ID: FILE E 123528



UL Recognized
Approval ID: FILE E 123528



DNV GL
Approval ID: TAA00000BW



cUL Recognized
Approval ID: FILE E 199827



UL Recognized
Approval ID: FILE E 199827

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Classifications

ECLASS

ECLASS-11.0	27210120
ECLASS-12.0	27210120
ECLASS-13.0	27210120

ETIM

ETIM 8.0	EC002653
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UNSPSC

UNSPSC 21.0	39121000
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Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"
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Accessories

TC-D37SUB-AIO16-M-PS-UNI - Module carrier

2902934

<https://www.phoenixcontact.com/in/products/2902934>



Universal termination carrier for connecting 16 MINI Analog signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection), with HART multiplexer connection

TC-D37SUB-ADIO16-M-P-UNI - Module carrier

2902933

<https://www.phoenixcontact.com/in/products/2902933>



Universal termination carrier for connecting 16 MINI Analog signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection)

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MINI MCR DKL - Transparent cover

2308111

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Fold up transparent cover for MINI MCR modules with additional labeling option using insert strips and flat Zack marker strip 6.2 mm

MINI MCR-DKL-LABEL - Marking label

2810272

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Label for extended marking of MINI MCR modules in connection with the MINI MCR-DKL

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