

MINI MCR-BL-I-2I - Signal duplicator

2810829

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4-way signal duplicator for electrical isolation and duplication of analog signals with screw connection, input signal: 4 mA ... 20 mA, output signal: 2 x 4 mA ... 20 mA

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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	Signal duplicator
Product family	ESSENTIAL edition
No. of channels	2
Type	Input signal conditioner
Configuration	INTERBUS

Insulation characteristics

Overvoltage category	II
Pollution degree	2

System properties

Functionality

Configuration	INTERBUS
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Electrical properties

Electrical isolation	4-way isolation
Limit frequency (3 dB)	approx. 35 Hz
Protective circuit	Transient protection
Step response (10-90%)	500 ms
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	< 0.004 %/K
Maximum transmission error	≤ 0.2 % (of final value)
Transmission error, typical	< 0.1 %

Electrical isolation Input/output/power supply

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

Nominal supply voltage	24 V DC ±10 %
Supply voltage range	19.2 V DC ... 30 V DC
Max. current consumption	< 30 mA
Power consumption	< 600 mW

Input data

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Signal: Current

Number of inputs	1
Configurable/programmable	no
Current input signal	4 mA ... 20 mA
Max. current input signal	50 mA
Input resistance current input	approx. 50 Ω

Output data

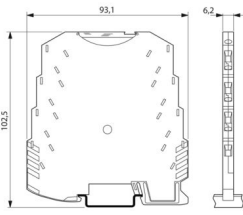
Signal: Current

Number of outputs	2
Non-load voltage	9 V
Current output signal	2x 4 mA ... 20 mA
Max. current output signal	20.5 mA
Load/output load current output	$\leq 250 \Omega$ (at 20 mA)
Ripple	$< 20 \text{ mV}_{PP}$ (at 250 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	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

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Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-10 °C ... 60 °C
Ambient temperature (storage/transport)	-20 °C ... 65 °C

Approvals

CE

Certificate	CE-compliant
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UKCA

Certificate	UKCA-compliant
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EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2:2005

Noise emission

Standards/regulations	EN 61000-6-4
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Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
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Standards and regulations

Electrical isolation	4-way isolation
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Mounting

Mounting type	DIN rail mounting
Mounting position	any

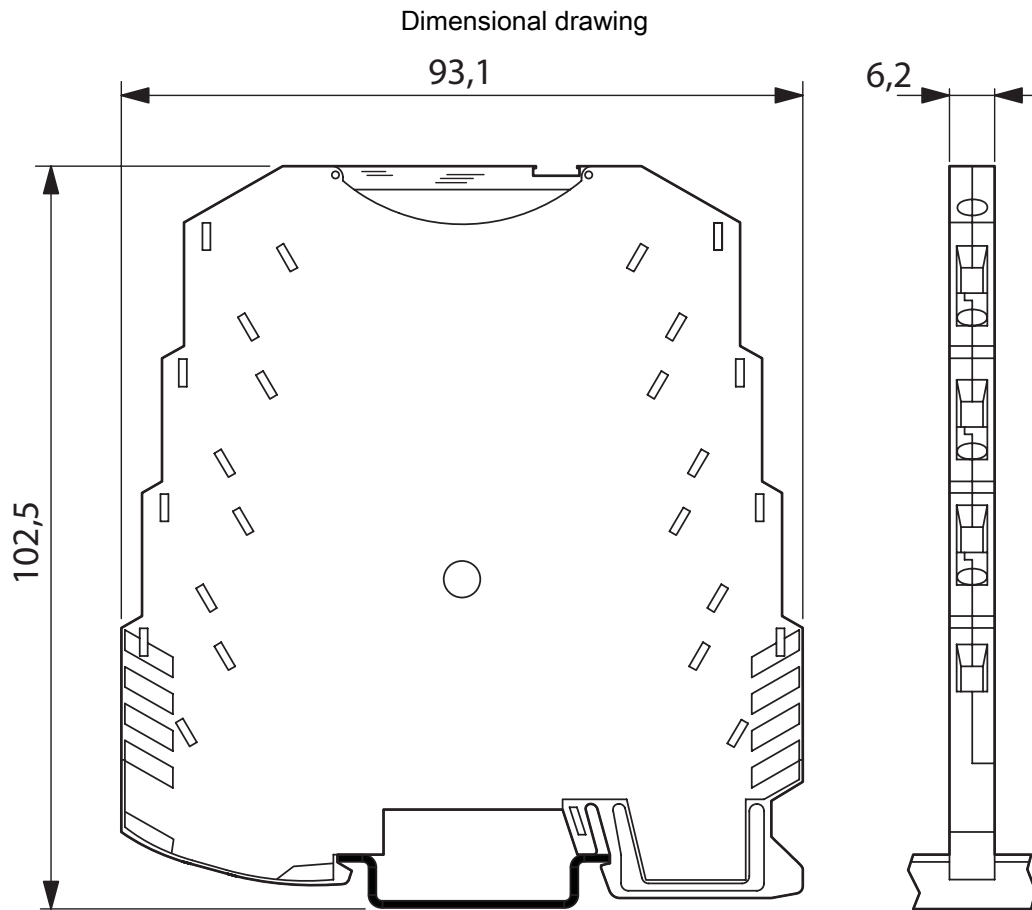
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Drawings

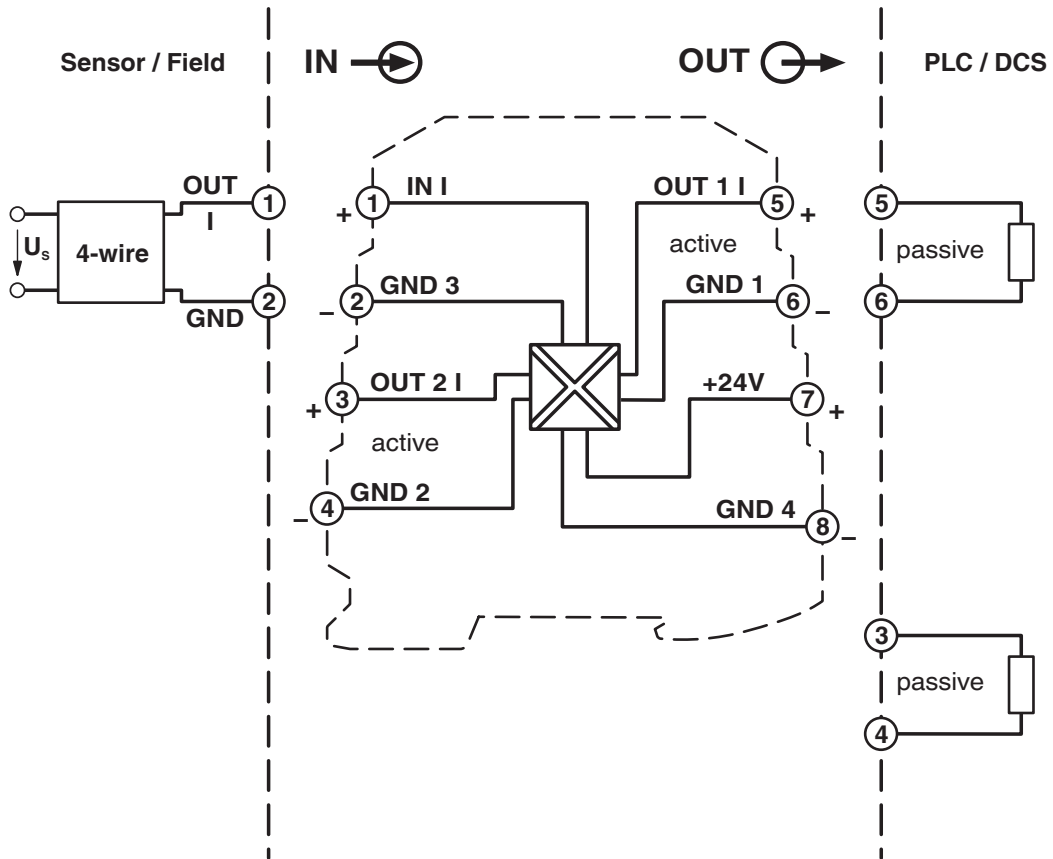


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Block diagram



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Classifications

ECLASS

ECLASS-13.0

27210120

ETIM

ETIM 9.0

EC002653

UNSPSC

UNSPSC 21.0

39121000

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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	35441543-ebea-4a01-b277-948965549871