

Signal conditioner - MINI MCR-2-U-I0-PT - 2902023

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3-way signal conditioner with plug-in connection technology for the electrical isolation of analog signals. Input signal: 0 ... 10 V, output signal: 0 ... 20 mA, push-in connection technology

Article description

Standard signal 3-way signal conditioner with plug-in connection technology for the electrical isolation, conversion, amplification, and filtering of standard signals. The measuring transducer supports fault monitoring and NFC communication.



Key commercial data

package_quantity	1
GTIN	4046356652018

Technical data

Note

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

Width	6.2 mm
Height	110.5 mm
Depth	120.5 mm

Ambient conditions

Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

Input data

Number of inputs	1
Configurable/programmable	no
Voltage input signal	0 V ... 10 V
Input resistance of voltage input	approx. 1 MΩ
Input resistance current input	approx. 63 Ω (+ 0.7 V for test diode)

Output data

Number of outputs	1
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Output data

Configurable/programmable	no
Current output signal	0 mA ... 20 mA
Max. output current	22 mA
Load/output load current output	≤ 600 Ω (at 20 mA)
Ripple	< 20 mV _{PP} (at 600 Ω)

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	9.6 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))
Typical current consumption	25 mA (24 V DC)
Typical current consumption	54 mA (12 V DC)
Power consumption	≤ 800 mW (at 9.6 V DC)

Connection data

Connection method	Push-in connection
Single conductor/terminal point, solid, with ferrule, min.	0.14 mm ²
Single conductor/terminal point, solid, with ferrule, max.	2.5 mm ²
Single conductor/terminal point, solid, without ferrule, min.	0.14 mm ²
Single conductor/terminal point, solid, without ferrule, max.	2.5 mm ²
Conductor cross section flexible min.	0.14 mm ²
Conductor cross section flexible max.	2.5 mm ²
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	12
Stripping length	10 mm

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)	approx. 30 Hz
Step response (10-90%)	approx. 10 ms
Protective circuit	Transient protection
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Overtoltage category	II
Degree of pollution	2
Rated insulation voltage	300 V (effective)
Test voltage, input/output/supply	3 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

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Technical data

General

Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Color	gray
Housing material	PBT
Mounting position	any
Assembly instructions	The T connector can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715.
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
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6

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
Standards/regulations	EN 61000-4-4
Standards/regulations	EN 61000-4-5
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50
China RoHS	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Classifications

eCl@ss

eCl@ss 4.0	27210120
eCl@ss 4.1	27210120
eCl@ss 5.0	27210120
eCl@ss 5.1	27210120
eCl@ss 6.0	27210120

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Classifications

eCl@ss

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

UNSPSC

UNSPSC 6.01	30211502
UNSPSC 7.0901	39121004
UNSPSC 11	39121004
UNSPSC 12.01	39121004
UNSPSC 13.2	39121008

Approvals

ATEX / UL Listed / cUL Listed / cULus Listed / UL Listed / cUL Listed / GL / cULus Listed /

Approval details

- ATEX
- UL Listed
- cUL Listed
- cULus Listed
-
-
- GL
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Accessories

DIN rail connector

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Accessories

ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



Power module

MINI MCR-2-PTB - 2902066



MINI MCR-2-PTB-PT - 2902067



Evaluation unit

MINI MCR-2-FM-RC - 2904504



MINI MCR-2-FM-RC-PT - 2904508



Power supply

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Accessories

MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



MINI-PS-100-240AC/24DC/1.5/EX - 2866653



System adapter

MINI MCR-2-V8-FLK 16 - 2901993



Communication module

MINI MCR-2-V8-MOD-RTU - 2905634



MINI MCR-2-V8-MOD-TCP - 2905635



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Accessories

MINI MCR-2-V8-PB-DP - 2905636



Device marking

UCT-EM (30X5) - 0801505



UCT-EM (30X5) YE - 0830340



UC-EMLP (15X5) - 0819301



UC-EMLP (15X5) YE - 0822615



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Accessories

UC-EMLP (15X5) SR - 0828095



US-EMLP (15X5) - 0828790



US-EMLP (15X5) YE - 0828873



US-EMLP (15X5) SR - 0828874



Labeled device marker

UCT-EM (30X5) CUS - 0801589



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Accessories

UCT-EM (30X5) YE CUS - 0830348



UC-EMLP (15X5) CUS - 0824550



UC-EMLP (15X5) YE CUS - 0824551



UC-EMLP (15X5) SR CUS - 0828099



US-EMLP (15X5) CUS - 0830076



US-EMLP (15X5) YE CUS - 0830077



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Accessories

US-EMLP (15X5) SR CUS - 0830078



Terminal marking

SK 5,0 WH:REEL - 0805221



Accessories

ME 6,2 TBUS-2 1,5/5-ST-3,81 GY - 2695439



UC-EMLP (15X5)L - 0820138



UC-EMLP (15X5)L CUS - 0824552

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Accessories

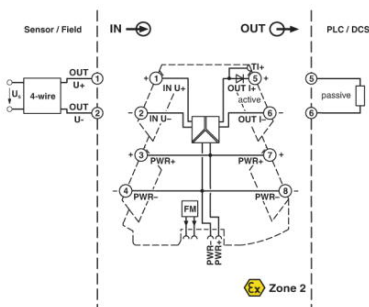
UC-EMLP (15X5)L YE - 0825325

UC-EMLP (15X5)L YE CUS - 0826680

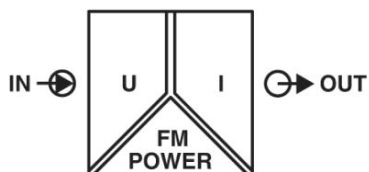
UC-EMLP (15X5)L SR - 0828103

Drawings

Block diagram



Pictogram



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Pictogram



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