

Thermocouple measuring transducer - MINI MCR-SL-TC-UI-NC - 2864299

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MCR temperature transducer for thermocouples, can be configured via DIP switches, with screw connection, standard configuration

Product Description

The configurable temperature transducer with 3-way isolation is suitable for the connection of thermocouples. The measured values are converted into a linear current or voltage signal. The device can either be configured via DIP switches or, with extended functionality, via the S port using the software (FDT/DTM). The measuring transducer supports fault monitoring.

Product Features

- Power supply possible via the foot element (T-connector)
- For J and K thermocouples according to IEC 60584
- Error indication via diagnostic LED and analog signal
- Temperature measuring range of -150°C to +1350°C
- Highly-compact temperature transducer for electrical isolation, conversion, amplification, and filtering of thermocouple signals to create standard signals
- Internal cold junction compensation
- Input and output signals can be configured via DIP switches
- 3-way isolation



Key commercial data

package_quantity	1
GTIN	4017918956554

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	93.1 mm
Depth	102.5 mm

Ambient conditions

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Technical data

Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

Input data

Sensor types that can be used (TC)	Thermocouples type J, K (IEC 584-1)
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Output data

Voltage output signal	0 V ... 10 V
Voltage output signal	10 V ... 0 V
Voltage output signal	0 V ... 5 V
Voltage output signal	1 V ... 5 V
Current output signal	0 mA ... 20 mA
Current output signal	4 mA ... 20 mA
Current output signal	20 mA ... 0 mA
Current output signal	20 mA ... 4 mA
Max. output voltage	12.5 V
Max. output current	23 mA
Short-circuit current	approx. 10 mA
Load/output load voltage output	≥ 10 kΩ
Load/output load current output	< 500 Ω (at 20 mA)

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (The T 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))
Max. current consumption	< 25 mA (at 24 V DC)
Power consumption	< 500 mW

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Stripping length	12 mm
Screw thread	M3

General

No. of channels	1
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Technical data

General

Maximum temperature coefficient	< 0.02 %/K
Cold point error, max.	< 3 K
Typical cold point errors	< 2 K
Protective circuit	Transient protection
Electrical isolation	Basic insulation according to EN 61010
Surge voltage category	II
Pollution degree	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 2004/108/EC
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	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.
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL 508 Recognized
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T5
GL	GL EMC 2 D

EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	10 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	10 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	10 %

classifications

eCl@ss

eCl@ss 4.0	27200206
eCl@ss 4.1	27200206
eCl@ss 5.0	27200206

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classifications

eCl@ss

eCl@ss 5.1	27200206
eCl@ss 6.0	27200206
eCl@ss 7.0	27200206
eCl@ss 8.0	27200206

ETIM

ETIM 2.0	EC001446
ETIM 3.0	EC001446
ETIM 4.0	EC001446
ETIM 5.0	EC001446


UNSPSC


UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

approvals

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

Approval details

UL Listed 	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

cUL Listed 	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

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approvals



UL Recognized

Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

cUL Recognized

Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

GL



accessories

Programming adapter

IFS-USB-PROG-ADAPTER - 2811271



Power module

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accessories

MINI MCR-SL-PTB-FM - 2902958



MINI MCR-SL-PTB-FM-SP - 2902959



Evaluation unit

MINI MCR-SL-FM-RC-NC - 2902961



MINI MCR-SL-FM-RC-SP-NC - 2902962



DIN rail connector

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



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accessories

Power supply

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



System adapter

MINI MCR-SL-V8-FLK 16-A - 2811268



Multiplexer

MINI MCR-SL-MUX-V8-FLK 16 - 2811815



Marking material

MINI MCR DKL - 2308111



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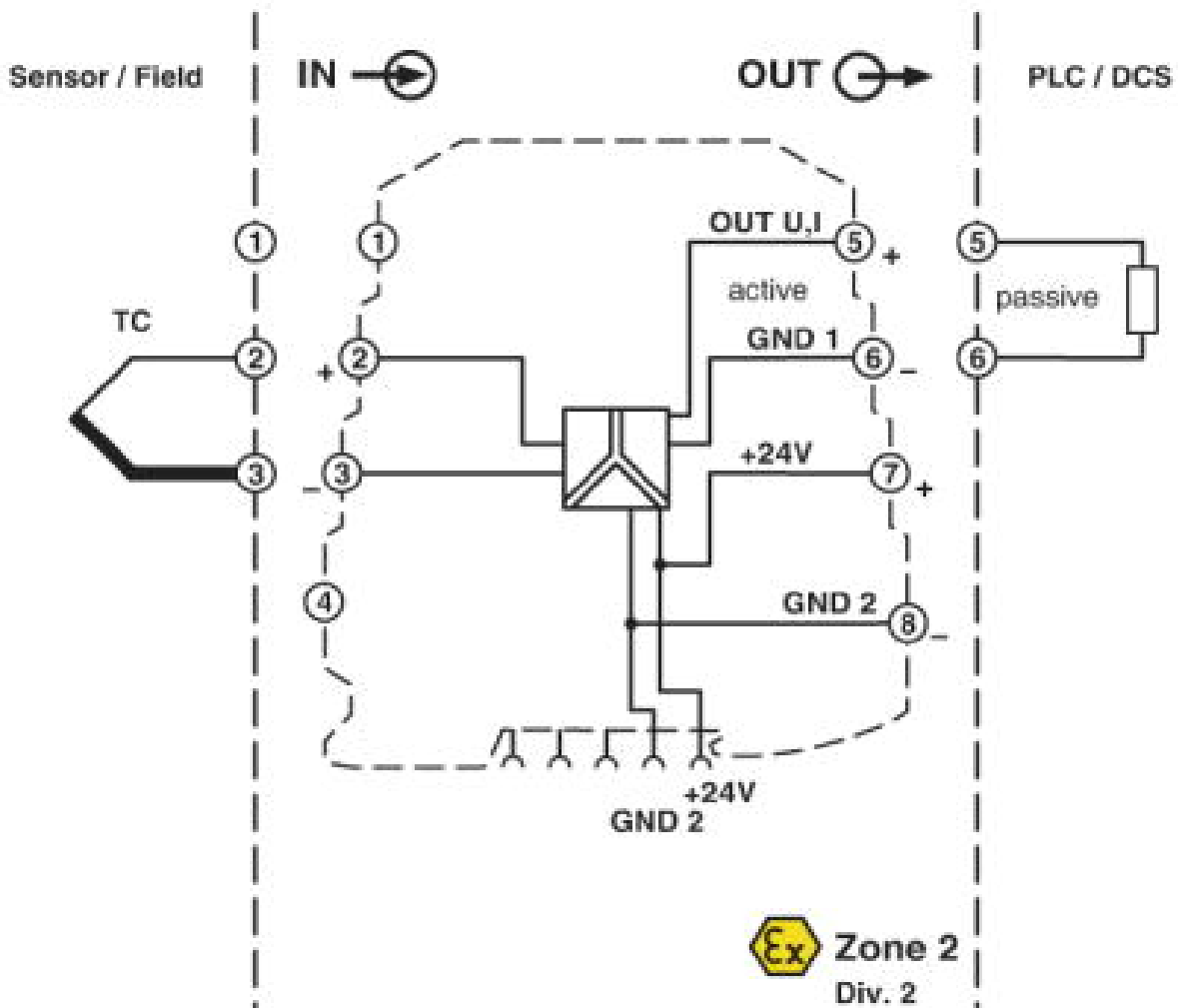
accessories

MINI MCR-DKL-LABEL - 2810272



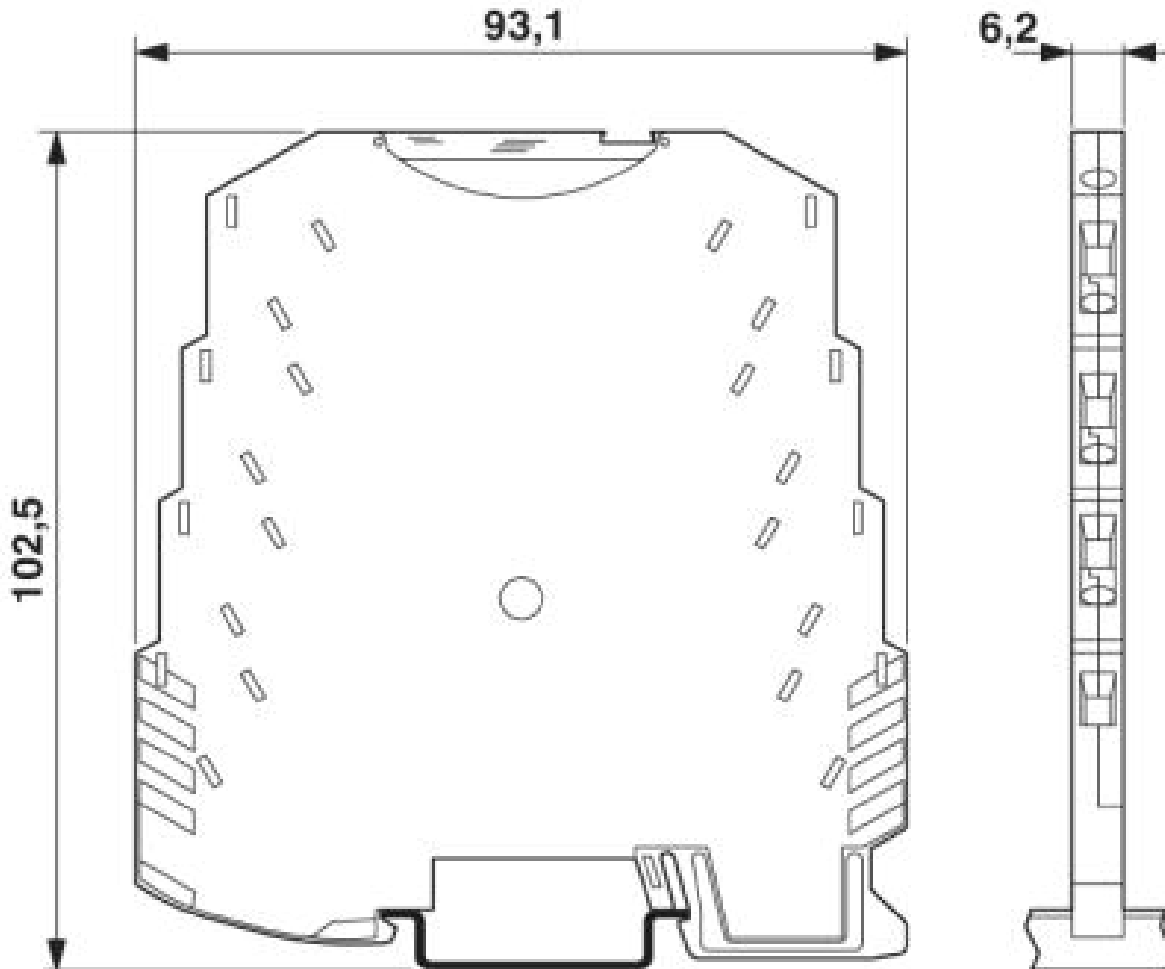
Drawings

Block diagram



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Dimensioned drawing



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