Limit value switches - MINI MCR-2-T-2RO-PT - 2906877

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Universally configurable temperature limit value switch with two transistor outputs for the connection of 2, 3, and 4-conductor resistance thermometers and thermocouples. Configurable via DIP switch or software, push-in connection technology

Article description

Universally configurable temperature limit value switch with two transistor outputs for the connection of 2, 3, and 4-conductor resistance thermometers and thermocouples. You can configure the device using one of the free software solutions available or your smartphone. Default settings can also be made directly on the device by simply using the DIP switches (see configuration table). The temperature limit value switch supports fault monitoring and NFC communication.

Key commercial data

package_quantity	1
GTIN	4055626131566

Technical data

Note

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

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
Degree of protection	IP20

Input data

Number of inputs	1
Available input sources	Resistance thermometers
Sensor types (RTD) that can be used	Pt, Ni, Cu sensors
Connection technology	2, 3, 4-wire
Sensor input current	approx. 200 µA

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Input data

Max. permissible overall conductor resistance	≤ 25 Ω (Per line, RTD in 3- or 4-wire technology)
Max. permissible overall conductor resistance	≤ 50 Ω (Per line, RTD in 2-wire technology)
Linear resistance measuring range	0 Ω ... 4000 Ω
Linear mV signal range	-500 mV ... 500 mV
Available input sources	Thermocouples
Sensor types that can be used (TC)	B, E, J, K, N, R, S, T, L, U, A-1, A-2, A-3, M, L

Switching output

Output name	Switching output
Number of outputs	2
Contact type	2 N/O contacts
Maximum switching voltage	30 V DC
Max. switching current	100 mA (30 V (≤ 50 °C))
Max. switching current	70 mA (30 V (51 °C ... 70 °C))

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	20 mA (12 V DC)
Typical current consumption	10 mA (24 V DC)
Power consumption	350 mW

Connection data

Connection method	Push-in connection
Single conductor/terminal point, solid, with ferrule, min.	0.14 mm²
Single conductor/terminal point, solid, with ferrule, max.	2.5 mm²
Single conductor/terminal point, solid, without ferrule, min.	0.14 mm²
Single conductor/terminal point, solid, without ferrule, max.	2.5 mm²
Conductor cross section flexible min.	0.14 mm²
Conductor cross section flexible max.	2.5 mm²
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	12
Stripping length	10 mm

General

No. of channels	1
Maximum temperature coefficient	0.01 %/K
Switching point accuracy	< 0.1 %
Status display	Yellow LED (switching output)
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Overvoltage category	II
Degree of pollution	2

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General

Rated insulation voltage	300 V
Test voltage, input/output/supply	3 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
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.
Conformance	CE-compliant
ATEX	II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 508 Listed
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D T6
UL, USA/Canada	Class I, Zone 2, Group IIC T6
GL	GL applied for
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

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Conformance	CE-compliant
ATEX	II 3 G Ex nA IIC T4 Gc X
UL, USA/Canada	UL 508 Listed
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D T6
UL, USA/Canada	Class I, Zone 2, Group IIC T6
GL	GL applied for

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 5.1	27210122
eCl@ss 6.0	27210122
eCl@ss 7.0	27210122
eCl@ss 8.0	27210122

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Classifications

eCl@ss

eCl@ss 9.0	27210122

ETIM

ETIM 4.0	EC002654
ETIM 5.0	EC002654
ETIM 6.0	EC002654

UNSPSC

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

Approvals

ATEX /

Approval details

ATEX

Accessories

DIN rail connector

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

Power module

MINI MCR-2-PTB - 2902066

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Accessories

MINI MCR-2-PTB-PT - 2902067

Evaluation unit

MINI MCR-2-FM-RC - 2904504

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

Power supply

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

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

Programming adapter

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Accessories

IFS-BT-PROG-ADAPTER - 2905872

IFS-USB-PROG-ADAPTER - 2811271

NFC-USB-PROG-ADAPTER - 2900013

Device marking

UCT-EM (30X5) - 0801505

UCT-EM (30X5) YE - 0830340

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Accessories

UC-EMLP (15X5) - 0819301

UC-EMLP (15X5) YE - 0822615

UC-EMLP (15X5) SR - 0828095

US-EMLP (15X5) - 0828790

US-EMLP (15X5) YE - 0828873

US-EMLP (15X5) SR - 0828874

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Accessories

Labeled device marker

UCT-EM (30X5) CUS - 0801589

UCT-EM (30X5) YE CUS - 0830348

UC-EMLP (15X5) CUS - 0824550

UC-EMLP (15X5) YE CUS - 0824551

UC-EMLP (15X5) SR CUS - 0828099

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Accessories

US-EMLP (15X5) CUS - 0830076

US-EMLP (15X5) YE CUS - 0830077

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

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Accessories

UC-EMLP (15X5)L - 0820138

UC-EMLP (15X5)L CUS - 0824552

UC-EMLP (15X5)L YE - 0825325

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

UC-EMLP (15X5)L SR - 0828103

Drawings

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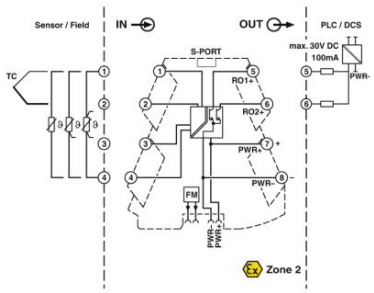
Block diagram



Pictogram