

Limit value switches - MINI MCR-SL-UI-REL - 2864480

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MCR limit value switch, with adjustable hysteresis and delay time, with screw connection

Product Description

The 6.2 mm wide configurable 3-way threshold value switch MINI MCR-SL-UI-REL... is used to control and monitor analog standard signals. On the input side, the analog standards signals 0...20 mA or 0...10 V per DIP switch can be set. On the output side, a relay with PDT contact is available. The switching thresholds are set via potentiometer.

The DIP switches located on the side of the housing have the following functions:

- Configuration of the switching hysteresis,
- Configuration of the operating and closed circuit current behavior,
- Setting of relay pickup times
- Setting of dropout delay

The relay status is indicated by a yellow LED on the front of the housing.

Power (19.2 V DC to 30 V DC) can be supplied through connection terminal blocks on the modules or in conjunction with the DIN rail connector.

Your advantages

- ✓ Power supply possible via the foot element (TBUS)
- ✓ Highly-compact threshold value switch for switching analog limit values
- ✓ Status and error indication via two diagnostic LEDs
- ✓ Operating current/closed circuit current switch-over
- ✓ PDT relay at output
- ✓ Limit value can be freely adjusted via potentiometer on the front
- ✓ Input signal, hysteresis, and delay time can be configured via DIP switches
- ✓ 3-way isolation



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	70.900 g
Custom tariff number	85437040
Country of origin	Germany

Technical data

Note

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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	101.2 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Maximum altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)
Degree of protection	IP20
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.

Input data

Number of inputs	1
Voltage input signal	0 V ... 10 V
Current input signal	0 mA ... 20 mA
max. input voltage	30 V
Max. input current	100 mA
Input resistance of voltage input	> 100 kΩ
Input resistance current input	50 Ω

Output data

Number of outputs	1
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Switching output

Output name	Relay output
Contact type	1 PDT
Contact material	AgSnO ₂ , hard gold-plated
Maximum switching voltage	250 V AC
	240 V AC (UL)
Limiting continuous current	2 A
Setting range of the response delay	0 s ... 10 s (0 s; 1 s; 2 s; 3 s; 4 s; 6 s; 8 s; 10 s)
Internal hysteresis	0.1 %; 1 %; 2.5 %; 5 %

Power supply

Nominal supply voltage	24 V DC ±15 %
Supply voltage range	19.2 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))
Max. current consumption	< 14 mA (at 24 V DC)

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Technical data

Power supply

Power consumption	< 330 mW (at 24 V DC)
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Connection data

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross section solid	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

General

No. of channels	1
Maximum temperature coefficient	< 0.02 %/K
Switching point accuracy	< 0.05 %
Electrical isolation	Basic insulation according to EN 61010
Overvoltage category	II
Degree of pollution	2
Rated insulation voltage	50 V AC/DC
Test voltage input/power supply	1.5 kV AC (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	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.
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
Typical deviation from the measuring range final value	5 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	5 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	5 %

Standards and Regulations

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Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Connection in acc. with standard	CUL
Standards/regulations	EN 61000-4-2
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
	EN 61000-4-5
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Basic insulation according to EN 61010
Conformance	CE-compliant
ATEX	# II 3 G Ex nA nC IIC T4 Gc X
UL, USA	Class I, Zone 2, AEx nA nC IIC T5
UL, USA/Canada	UL 508 Recognized
UL, Canada	Class I, Zone 2, Ex nA nC IIC T5 Gc
GL	GL EMC 2 D

Conformance/approvals

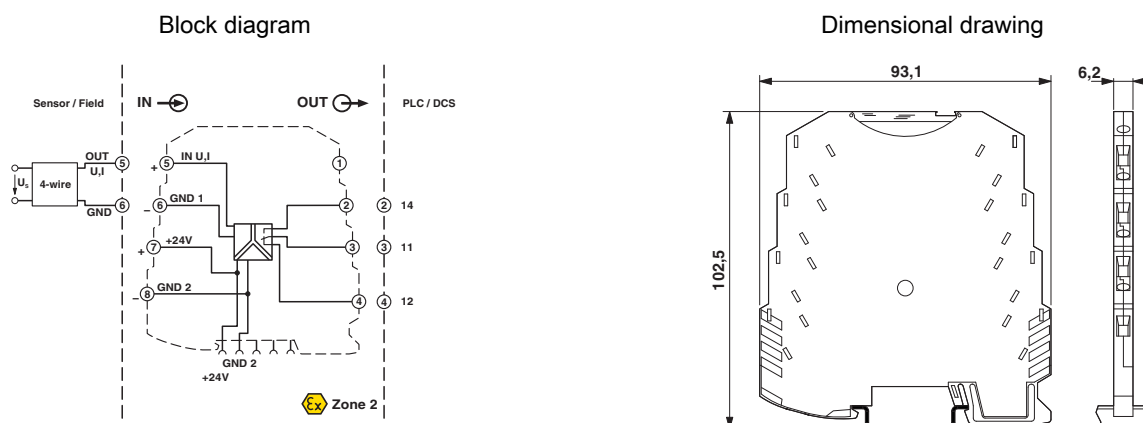
Designation	CE
Identification	CE-compliant
Designation	UL, USA
Identification	Class I, Zone 2, AEx nA nC IIC T5
Designation	UL, USA/Canada
Identification	UL 508 Recognized
Designation	UL, Canada
Identification	Class I, Zone 2, Ex nA nC IIC T5 Gc
Designation	Shipbuilding approval
Certificate	DNV GL TAA00002R0
Temperature	B
Humidity	B
Vibration	B
EMC	A
Enclosure	Required protection according to the Rules shall be provided upon installation on board

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

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Drawings



Classifications

eCl@ss

eCl@ss 10.0.1	27210122
eCl@ss 11.0	27210122
eCl@ss 4.0	27210100
eCl@ss 4.1	27210100
eCl@ss 5.0	27210100
eCl@ss 5.1	27210100
eCl@ss 6.0	27210100
eCl@ss 7.0	27210122
eCl@ss 8.0	27210122
eCl@ss 9.0	27210122

ETIM

ETIM 4.0	EC002654
ETIM 5.0	EC002654
ETIM 6.0	EC002654
ETIM 7.0	EC002654

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008
UNSPSC 18.0	39121008
UNSPSC 19.0	39121008
UNSPSC 20.0	39121008
UNSPSC 21.0	39121008

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Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / DNV GL / cULus Recognized

Ex Approvals

ATEX / UL Listed / cUL Listed / EAC Ex / cULus Listed

Approval details

UL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

cUL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm>

FILE E 238705

DNV GL



<https://approvalfinder.dnvgl.com/>

TAA00002R0

cULus Recognized



Accessories

Accessories

DIN rail connector

DIN rail bus connectors - ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

Marking material

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Accessories

Transparent cover - MINI MCR DKL - 2308111



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

Marking label - MINI MCR-DKL-LABEL - 2810272



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

Power module

Power terminal block - MINI MCR-SL-PTB - 2864134



MCR power terminal block for supplying several MINI Analog modules via the DIN rail connector, with screw connection, maximum current consumption of up to 2 A

Power supply

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



Primary-switched MINI POWER supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A