

Signal conditioner - MINI MCR-SL-UI-I-LP-NC - 2902829

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2-way loop-powered isolating amplifier (supplied on the output side), can be configured via DIP switches, with screw connection technology and standard configuration.

Product Description

The 6.2 mm wide MINI MCR-SL-UI-I-LP... configurable 2-way isolating amplifier is used to electrically isolate, condition, and filter analog signals. The output loops that supply the loop-powered isolating amplifier enable the isolating amplifier to operate on an active analog input module. The modules are supplied via the current loop of the controller. On the input side, standard analog signals and non-standard analog signals can be connected, starting from 2 mA or 50 mV up to 40 mA or 30 V. These are converted to a 4...20 mA signal. The DIP switches accessible on the housing side enable the configuration of input signal ranges.



Key commercial data

package_quantity	1
GTIN	4046356682350

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

Ambient temperature (operation)	-25 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

Input data

Voltage input signal	0 mV ... 1000 mV
Voltage input signal	0 mV ... 750 mV
Voltage input signal	0 mV ... 500 mV
Voltage input signal	0 mV ... 300 mV
Voltage input signal	0 mV ... 250 mV

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Input data

Voltage input signal	0 mV ... 200 mV
Voltage input signal	0 mV ... 150 mV
Voltage input signal	0 mV ... 125 mV
Voltage input signal	0 mV ... 120 mV
Voltage input signal	0 mV ... 100 mV
Voltage input signal	0 mV ... 75 mV
Voltage input signal	0 mV ... 60 mV
Voltage input signal	0 mV ... 50 mV
Voltage input signal	0 V ... 10 V
Voltage input signal	0 V ... 7.5 V
Voltage input signal	0 V ... 5 V
Voltage input signal	0 V ... 3 V
Voltage input signal	0 V ... 2.5 V
Voltage input signal	0 V ... 2 V
Voltage input signal	0 V ... 1.5 V
Voltage input signal	0 V ... 1.25 V
Voltage input signal	0 V ... 1.2 V
Voltage input signal	0 V ... 30 V
Voltage input signal	0 V ... 25 V
Voltage input signal	0 V ... 20 V
Voltage input signal	0 V ... 12.5 V
Voltage input signal	0 V ... 12 V
Voltage input signal	0 V ... 15 V
Voltage input signal	-1000 mV ... 1000 mV
Voltage input signal	-750 mV ... 750 mV
Voltage input signal	-500 mV ... 500 mV
Voltage input signal	-300 mV ... 300 mV
Voltage input signal	-250 mV ... 250 mV
Voltage input signal	-200 mV ... 200 mV
Voltage input signal	-125 mV ... 125 mV
Voltage input signal	-120 mV ... 120 mV
Voltage input signal	-150 mV ... 150 mV
Voltage input signal	-100 mV ... 100 mV
Voltage input signal	-75 mV ... 75 mV
Voltage input signal	-60 mV ... 60 mV
Voltage input signal	-50 mV ... 50 mV
Voltage input signal	-10 V ... 10 V
Voltage input signal	-7.5 V ... 7.5 V
Voltage input signal	-5 V ... 5 V
Voltage input signal	-3 V ... 3 V
Voltage input signal	-2.5 V ... 2.5 V

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Input data

Voltage input signal	-2 V ... 2 V
Voltage input signal	-1.25 V ... 1.25 V
Voltage input signal	-1.2 V ... 1.2 V
Voltage input signal	-1.5 V ... 1.5 V
Voltage input signal	-30 V ... 30 V
Voltage input signal	-25 V ... 25 V
Voltage input signal	-20 V ... 20 V
Voltage input signal	-12.5 V ... 12.5 V
Voltage input signal	-12 V ... 12 V
Voltage input signal	-15 V ... 15 V
Voltage input signal	2 V ... 10 V (additional areas can be configured, see table)
Voltage input signal	1 V ... 5 V
Current input signal	0 mA ... 40 mA
Current input signal	0 mA ... 30 mA
Current input signal	0 mA ... 20 mA
Current input signal	0 mA ... 12 mA
Current input signal	0 mA ... 10 mA
Current input signal	0 mA ... 8 mA
Current input signal	0 mA ... 7.5 mA
Current input signal	0 mA ... 5 mA
Current input signal	0 mA ... 6 mA
Current input signal	0 mA ... 4 mA
Current input signal	0 mA ... 3 mA
Current input signal	0 mA ... 2.5 mA
Current input signal	0 mA ... 2 mA
Current input signal	4 mA ... 20 mA
Current input signal	2 mA ... 10 mA
Current input signal	1 mA ... 5 mA
Max. input voltage	< 40 V
Max. input current	< 50 mA (Dielectric strength up to 30 V)
Input resistance of voltage input	approx. 100 kΩ (At ≤ 1 V, otherwise approximately 1 MΩ)
Input resistance current input	≤ 50 Ω

Output data

Configurable/programmable	Yes, preconfigured
Current output signal	4 mA ... 20 mA
Max. output current	35 mA (output limit)
Load/output load current output	((U _B - 8 V) / 22 mA)

Power supply

Supply voltage range	8 V DC ... 30 V DC
Power consumption	28 mW (without signal)

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

General

Maximum transmission error	< 0.1 % (of final value)
Maximum transmission error	< 0.2 % (Without adjustment)
Maximum temperature coefficient	0.01 %/K
Temperature coefficient, typical	0.005 %/K
Limit frequency (3 dB)	approx. 30 Hz
Alignment zero	± 2 %
Alignment span	± 2 %
Step response (10-90%)	approx. 16 ms
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	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
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 T5
UL, USA / Canada	Class I, Zone 2, Group IIC

EMC data

Name	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	0.5 %
Name	Fast transients (burst)
Standards/regulations	EN 61000-4-4

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EMC data

Typical deviation from the measuring range final value	2 %
Name	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	0.5 %

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
eCl@ss 7.0	27210120
eCl@ss 8.0	27210120

ETIM

ETIM 3.0	EC001485
ETIM 4.0	EC001485
ETIM 5.0	EC001485

UNSPSC

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

approvals

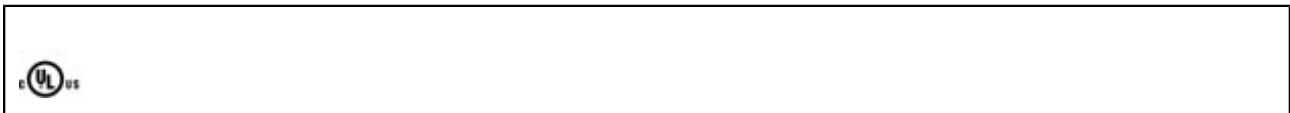
UL Listed / cUL Listed / cULus Listed / UL Listed / cUL Listed / cULus Listed /

Approval details



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approvals



accessories

System adapter

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



Marking material

MINI MCR DKL - 2308111



MINI MCR-DKL-LABEL - 2810272



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Drawings

Block diagram

