MINI MCR-SL-CVS-24-5-10-NC - Constant voltage source

2902822

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CRA-READY



Constant voltage source, input voltage 9.6 - 30 V DC, output voltage 10 V, 7.5 V, 5 V, 2.5 V DC, electrically isolated, can be configured via DIP switches, screw connection technology, standard configuration

Product description

The 6.2 mm wide configurable MINI MCR-SL-CVS-24-10-5 constant voltage source is used to generate high precision constant voltages.
The input voltage can fall between 9.6 V DC and 30 V DC.
The DIP switches accessible from the side of the housing enable configuration of the 10 V DC, 5 V DC, 7.5 V DC, and 2.5 V DC output voltages.
The input voltage can be applied either via connection terminal blocks on the modules or in conjunction with the DIN rail connector.

Commercial data

Item number	2902822
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C403
Product key	DK1139
GTIN	4046356682428
Weight per piece (including packing)	60.5 g
Weight per piece (excluding packing)	51.5 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Notes

Note on application

Note on application	As things stand now, we are preparing the product so that, as of December 11, 2027, it will comply with the requirements of the EU Cyber Resilience Act (CRA) based on the information currently available regarding the CRA.

Utilization restriction

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

Product properties

Product type	Constant voltage source
Product family	MINI Analog
No. of channels	1
Configuration	DIP switches

System properties

Functionality

Configuration	DIP switches

Electrical properties

Setting range comparison	± 300 mV
Electrical isolation	2-way isolation
Electrical isolation between input and output	yes
Maximum power dissipation for nominal condition	300 mW
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	< 0.002 %/K
Maximum transmission error	≤ 0.1 % (of final value)
	≤ 0.5 % (Without adjustment)

Electrical isolation

Overvoltage category	II
Pollution degree	2

Electrical isolation Input/output IEC/EN 61010

Standards/regulations	IEC/EN 61010
Rated insulation voltage	50 V AC/DC
Test voltage	1.5 kV AC (50 Hz, 60 s)
Insulation	Basic insulation

Supply

Nominal supply voltage	24 V DC

Supply voltage range	9.6 V DC ... 30 V DC (The DIN rail connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, item no. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail in accordance with EN 60715)
Max. current consumption	< 25 mA (10 V output with 30 mA load at 24 V DC IN)
	< 65 mA (10 V output with 30 mA load at 9.6 V DC IN)
	< 50 mA (10 V voltage output with 30 mA load at 12 V DC IN)
	< 20 mA (10 V voltage output with 30 mA load at 30 V DC IN)
Power consumption	< 600 mW (at 24 V IN)
	< 624 mW (at 9.6 V IN)
	< 564 mW (At 12 V IN)
	< 540 mW (at 30 V IN)

Input data

Signal: Voltage

Voltage input signal	9.6 V DC ... 30 V DC

Output data

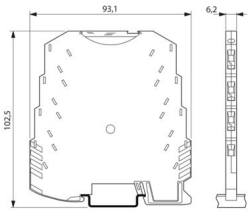
Signal: Voltage

Configurable/programmable	Yes, preconfigured
Max. voltage output signal	10 V DC
	7.5 V DC
	5 V DC
	2.5 V DC
Short-circuit current	approx. 32 mA
Output current	≤ 30 mA
Ripple	< 20 mV_{PP}

Connection data

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	26 ... 12

Dimensions

Dimensional drawing	
Width	6.2 mm

Height	93.1 mm
Depth	101.2 mm

Material specifications

Color	green (RAL 6021)
Housing material	PBT
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

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Approvals

CE

Certificate	CE-compliant

UL, USA/Canada

Identification	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T6
	Class I, Zone 2, Group IIC

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

Noise emission

Standards/regulations	EN 61000-6-4

Electrostatic discharge

Standards/regulations	EN 61000-4-2

Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.

Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3

Typical deviation from the upper range value	3 %

Electromagnetic HF field

Comments	Criterion A

Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the upper range value	3 %

Fast transients (burst)

Comments	Criterion B

Surge current load (surge)

Standards/regulations	EN 61000-4-5

Surge current load (surge)

Comments	Criterion B

Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the upper range value	0.5 %

Conducted interference

Comments	Criterion A

Standards and regulations

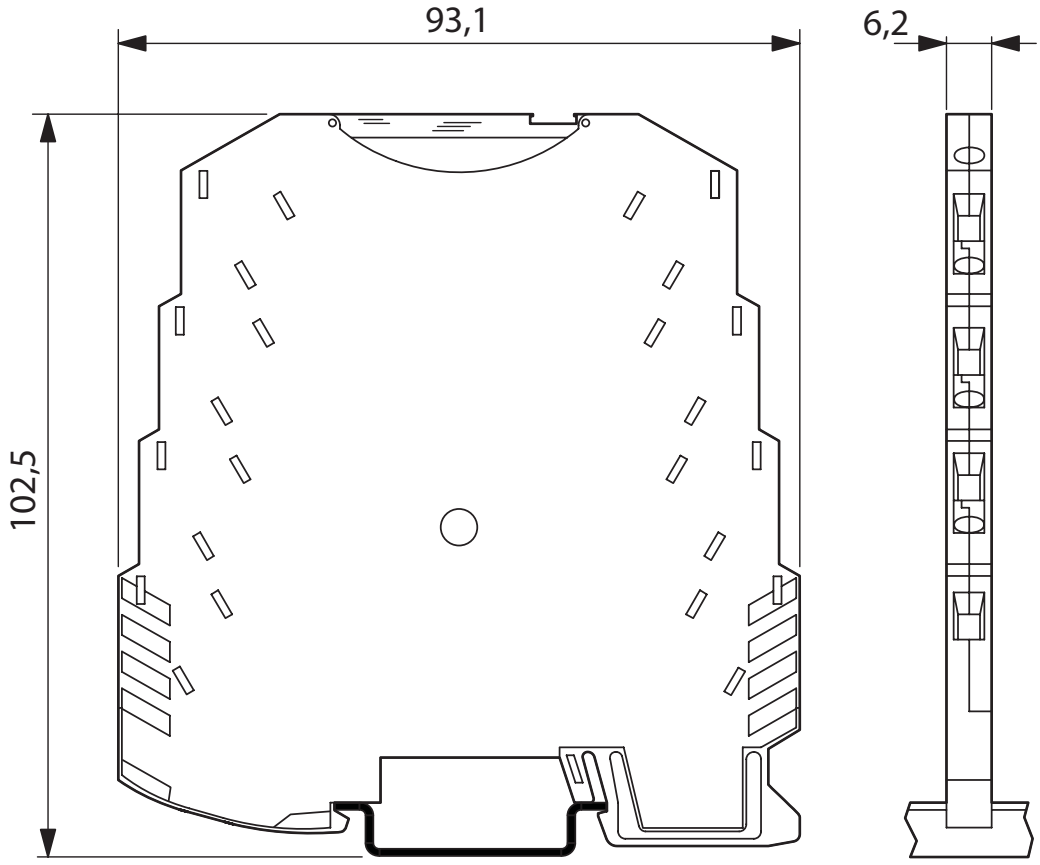
Electrical isolation	2-way isolation

Mounting

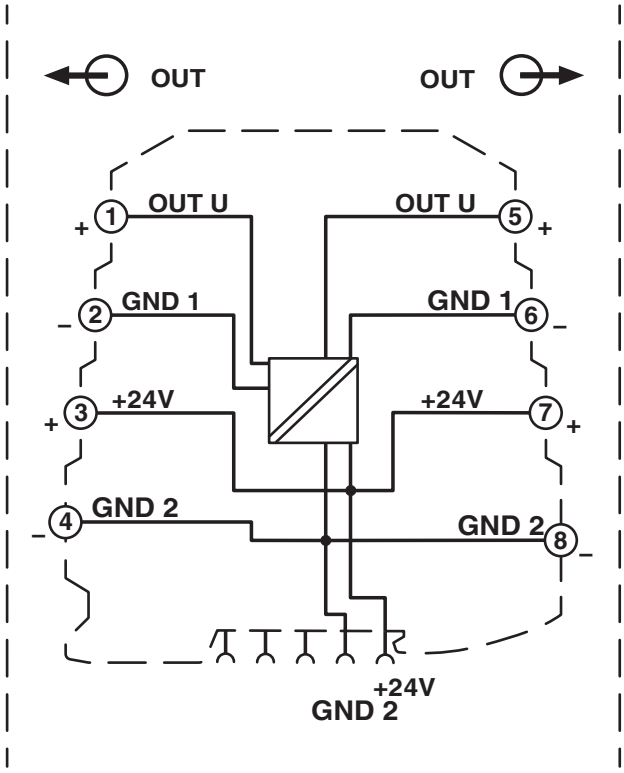
Mounting type	DIN rail mounting
Assembly note	The DIN rail connector can be used for bridging the supply voltage. It can be snapped onto a 35 mm EN 60715 DIN rail.
Mounting position	any

Drawings

Dimensional drawing



Block diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2902822

UL Listed
Approval ID: E238705

cUL Listed
Approval ID: E238705

cUL Listed
Approval ID: E199827

UL Listed
Approval ID: FILE E 199827

cULus Listed
Approval ID: E199827

Classifications

ECLASS

ECLASS-13.0	27210192
ECLASS-15.0	27210192

ETIM

ETIM 10.0	EC002498

UNSPSC

UNSPSC 21.0	39121000

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	Lead(CAS: 7439-92-1)
SCIP	d592cdca-41a8-4f80-85c7-fff7473dbfaa

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https://www.phoenixcontact.com

Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com