

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



2902822

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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	CK1244
Catalog page	Page 114 (C-7-2015)
GTIN	4046356682428
Weight per piece (including packing)	87.1 g
Weight per piece (excluding packing)	82.88 g
Customs tariff number	85437090
Country of origin	DE

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



2902822

<https://www.phoenixcontact.com/us/products/2902822>

Technical data

Notes

Utilization restriction

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

Product type	Constant voltage source
Product family	MINI Analog
Configuration	DIP switches

Insulation characteristics

Overvoltage category	II
Pollution degree	2

System properties

Functionality

Configuration	DIP switches
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Electrical properties

Setting range comparison	± 300 mV
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 Input/output

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

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)

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



2902822

<https://www.phoenixcontact.com/us/products/2902822>

	< 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
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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 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	26 ... 12

Dimensions

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	101.2 mm

Material specifications

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
Housing material	PBT

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2902822

<https://www.phoenixcontact.com/us/products/2902822>

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
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UKCA

Certificate	UKCA-compliant
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UL, USA/Canada

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

Shipbuilding approval

Certificate	DNV GL TAA00002R0
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DNV GL data

Temperature	B
Humidity	B
Vibration	B
EMC	B
Enclosure	Required protection according to the Rules shall be provided upon installation on board

EMC data

Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

Electrostatic discharge

Standards/regulations	EN 61000-4-2
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Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
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Electromagnetic HF field

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2902822

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Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	3 %

Electromagnetic HF field

Comments	Criterion A
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Fast transients (burst)

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

Fast transients (burst)

Comments	Criterion B
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Surge current load (surge)

Standards/regulations	EN 61000-4-5
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Surge current load (surge)

Comments	Criterion B
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Conducted interference

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

Conducted interference

Comments	Criterion A
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Mounting

Mounting type	DIN rail mounting
Assembly instructions	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

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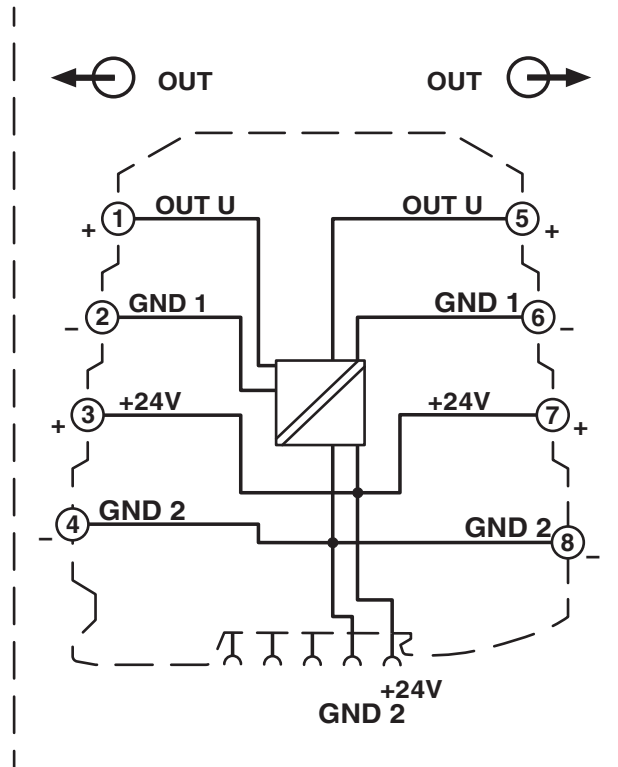


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Drawings

Block diagram



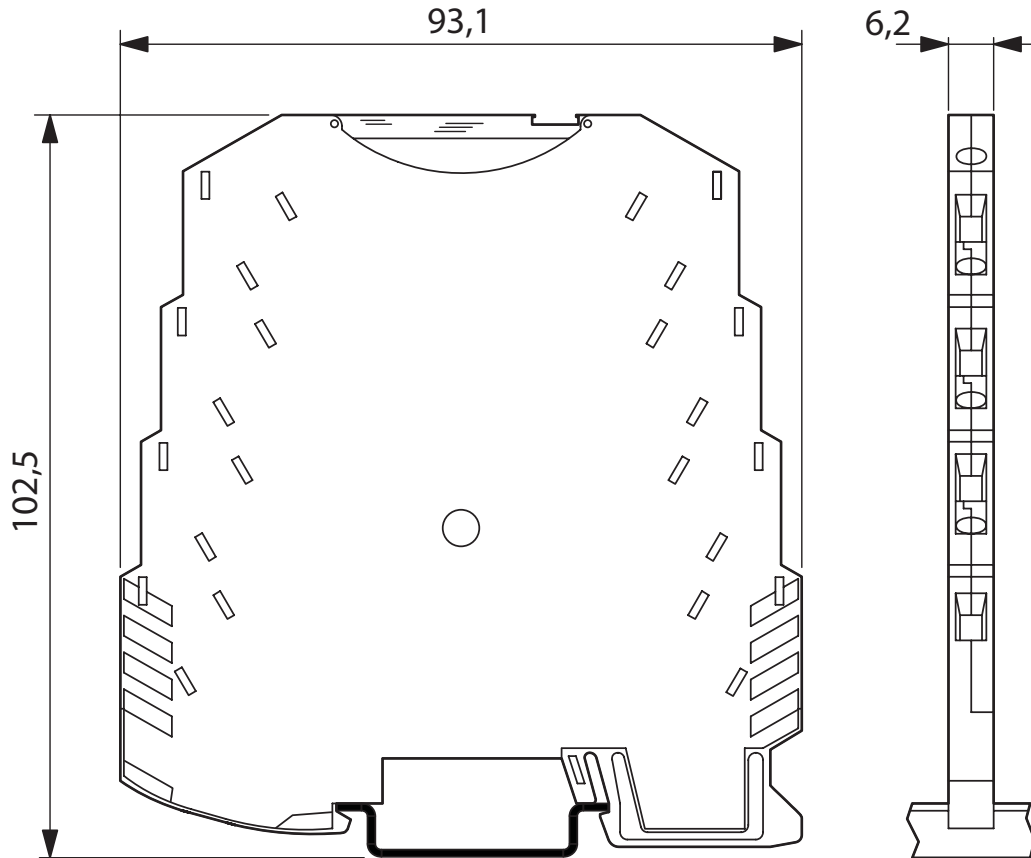
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Dimensional drawing



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Approvals

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



DNV GL

Approval ID: TAA00002R0



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 199827



UL Listed

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Classifications

ECLASS

ECLASS-11.0	27040701
ECLASS-12.0	27040701
ECLASS-13.0	27210192

ETIM

ETIM 9.0	EC002498
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UNSPSC

UNSPSC 21.0	39121000
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Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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2902822

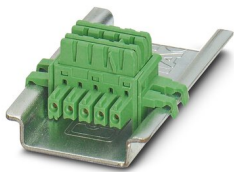
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Accessories

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

2869728

<https://www.phoenixcontact.com/us/products/2869728>



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

TC-D37SUB-AIO16-M-PS-UNI - Module carrier

2902934

<https://www.phoenixcontact.com/us/products/2902934>



Universal termination carrier for connecting 16 MINI Analog signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection), with HART multiplexer connection

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TC-D37SUB-ADIO16-M-P-UNI - Module carrier

2902933

<https://www.phoenixcontact.com/us/products/2902933>



Universal termination carrier for connecting 16 MINI Analog signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection)

MINI MCR DKL - Transparent cover

2308111

<https://www.phoenixcontact.com/us/products/2308111>



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

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2902822

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MINI MCR-DKL-LABEL - Marking label

2810272

<https://www.phoenixcontact.com/us/products/2810272>

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



MINI MCR-SL-PTB - Power terminal block

2864134

<https://www.phoenixcontact.com/us/products/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



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2902822

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QUINT4-SYS-PS/1AC/24DC/2.5/SC - Power supply unit

2904614

<https://www.phoenixcontact.com/us/products/2904614>



Primary-switched power supply, QUINT POWER, screw connection, DIN rail mounting, supply of devices possible via the TBUS DIN rail connector, protective coating, input: single-phase, output: 24 V DC/2.5 A

SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/us/products/1205053>



Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip

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