Constant voltage source - MINI MCR-2-CVCS - 2902064

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The figure shows the MINI MCR-2-CVCS-PT version

Constant voltage/current source with plug-in connection technology, input voltage: 9.6 V DC ... 30 V DC. Output voltage: 1.25 V ... 10 V DC or output current: 2.5 mA ... 20 mA can be set. Configurable via DIP switch. Screw connection technology.

Product Description

Constant voltage/current source with plug-in connection technology for generating high-precision constant voltages and constant currents. The input voltage can be in a range between 9.6 and 30 V DC and optionally applied via the connection terminal blocks of the modules or grouped via the DIN rail connector. The following voltage and current values can be set on the output side: 1.25 V, 2.5 V, 3.75 V, 5 V, 6.25 V, 7.5 V, 8.75 V, 10 V DC, 2.5 mA, 5 mA, 7.5 mA, 10 mA, 12.5 mA, 15 mA, 17.5 mA, 20 mA. You can configure the device via DIP switches. The device supports fault monitoring and NFC communication.

Key Commercial Data

Packing unit	1 STK
GTIN	4 046356 652124
GTIN	4046356652124
Weight per Piece (excluding packing)	100.000 g
Custom tariff number	85437090
Country of origin	Germany

Technical data

Note

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

Dimensions

Width	6.2 mm

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Dimensions

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

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

Output data

Configurable/programmable	Yes
Max. output voltage	10 V DC
	8.75 V DC
	7.5 V DC
	6.25 V DC
	5 V DC
	3.75 V DC
	2.5 V DC
	1.25 V DC
Max. output current	20 mA
	17.5 mA
	15 mA
	12.5 mA
	10 mA
	7.5 mA
	5 mA
	2.5 mA
Output voltage with wire break	13.5 V
Output current	≤ 30 mA
Short-circuit current	> 32 mA
Load/output load current output	≤ 600 Ω (20 mA)
Ripple	< 20 mV_{PP} (at 600 Ω)

Power supply

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	< 42 mA (24 V DC)

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Technical data

Power supply

	< 85 mA (12 V DC)
Power consumption	< 1.1 W (9.6 V DC)

Connection data

Connection method	Screw connection
Single conductor/terminal point, solid, with ferrule, min.	0.2 mm²
Single conductor/terminal point, solid, with ferrule, max.	1.5 mm²
Single conductor/terminal point, solid, without ferrule, min.	0.2 mm²
Single conductor/terminal point, solid, without ferrule, max.	2.5 mm²
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	1.5 mm²
Min. AWG conductor cross section, flexible	24
Max. AWG conductor cross section, flexible	12
Stripping length	10 mm
Screw thread	M3

General

Maximum transmission error	≤ 0.1 % (of final value)
Maximum temperature coefficient	< 0.01 %/K
Electrical isolation	Reinforced insulation in accordance with IEC 61010-1
Overvoltage category	II
Degree of pollution	2
Rated insulation voltage	300 V (effective)
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.

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

Environmental Product Compliance

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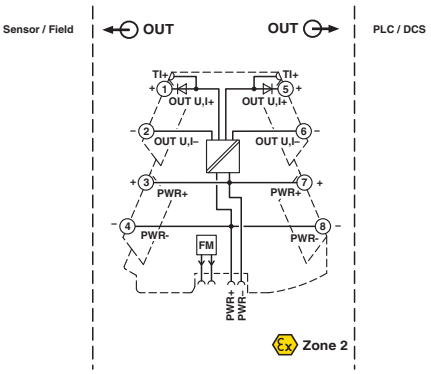
Technical data

Environmental Product Compliance

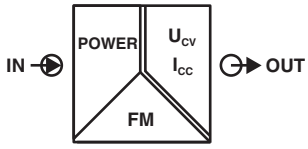
China RoHS	Environmentally Friendly Use Period = 50
	For details about hazardous substances go to tab “Downloads”, Category “Manufacturer's declaration”

Drawings

Block diagram



Pictogram



Classifications

eCl@ss

eCl@ss 5.0	27049002
eCl@ss 5.1	27049002
eCl@ss 6.0	27049002
eCl@ss 7.0	27049002
eCl@ss 8.0	27049002
eCl@ss 9.0	27040701

ETIM

ETIM 4.0	EC002540
ETIM 5.0	EC002540
ETIM 6.0	EC002540

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008

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Classifications

UNSPSC

UNSPSC 12.01	39121008
UNSPSC 13.2	39121004

Approvals

Approvals

Approvals

UL Listed / cUL Listed / cULus Listed

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Approval details

UL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cUL Listed		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
cULus Listed			

Accessories

Accessories

Device marking

Marker for end clamp - UCT-EM (30X5) - 0801505

Marker for end clamp, Sheet, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, Mounting type: snapped into marker carrier, Lettering field: 30 x 5 mm

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Accessories

Marker for end clamp - UCT-EM (30X5) YE - 0830340

Marker for end clamp, Sheet, yellow, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, BLUEMARK CLED, BLUEMARK LED, TOPMARK LASER, Mounting type: snapped into marker carrier, Lettering field: 30 x 5 mm

Plastic label - UC-EMLP (15X5) - 0819301

Plastic label, Sheet, white, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Plastic label - UC-EMLP (15X5) YE - 0822615

Plastic label, Sheet, yellow, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Plastic label - UC-EMLP (15X5) SR - 0828095

Plastic label, Sheet, silver, unlabeled, can be labeled with: BLUEMARK CLED, BLUEMARK LED, CMS-P1-PLOTTER, PLOTMARK, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Plastic label - US-EMLP (15X5) - 0828790

Plastic label, Card, white, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, Mounting type: Adhesive, Lettering field: 15 x 5 mm

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Accessories

Plastic label - US-EMLP (15X5) YE - 0828873

Plastic label, Card, yellow, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, Mounting type: Adhesive, Lettering field: 15 x 5 mm

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Plastic label - US-EMLP (15X5) SR - 0828874

Plastic label, Card, silver, unlabeled, can be labeled with: THERMOMARK PRIME, THERMOMARK CARD, Mounting type: Adhesive, Lettering field: 15 x 5 mm

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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.

Evaluation unit

Monitoring module - MINI MCR-2-FM-RC - 2904504

Fault monitoring module with plug-in connection technology for evaluating and reporting group errors from the FM system and for monitoring the supply voltages. Error reporting via N/O contact. Screw connection technology, standard configuration

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

Fault monitoring module with plug-in connection technology for evaluating and reporting group errors from the FM system and for monitoring the supply voltages. Error reporting via N/O contact. Push-in connection technology, standard configuration

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Accessories

Labeled device marker

Marker for end clamp - UCT-EM (30X5) CUS - 0801589

Marker for end clamp, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: snapped into marker carrier, Lettering field: 30 x 5 mm

Marker for end clamp - UCT-EM (30X5) YE CUS - 0830348

Marker for end clamp, can be ordered: by sheet, yellow, labeled according to customer specifications, Mounting type: snapped into marker carrier, Lettering field: 30 x 5 mm

Plastic label - UC-EMLP (15X5) CUS - 0824550

Plastic label, can be ordered: by sheet, white, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Plastic label - UC-EMLP (15X5) YE CUS - 0824551

Plastic label, can be ordered: by sheet, yellow, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Plastic label - UC-EMLP (15X5) SR CUS - 0828099

Plastic label, can be ordered: by sheet, silver, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 15 x 5 mm

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Accessories

Plastic label - US-EMLP (15X5) CUS - 0830076

Plastic label, can be ordered: By card, white, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Plastic label - US-EMLP (15X5) YE CUS - 0830077

Plastic label, can be ordered: By card, yellow, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Plastic label - US-EMLP (15X5) SR CUS - 0830078

Plastic label, can be ordered: By card, silver, labeled according to customer specifications, Mounting type: Adhesive, Lettering field: 15 x 5 mm

Power module

Power terminal block - MINI MCR-2-PTB - 2902066

Power terminal with plug-in connection technology for delivering the supply voltage to the DIN rail connector. Monitoring of the supply voltages in combination with the fault monitoring module. Screw connection technology

Power terminal block - MINI MCR-2-PTB-PT - 2902067

Power terminal with plug-in connection technology for delivering the supply voltage to the DIN rail connector. Monitoring of the supply voltages in combination with the fault monitoring module. Push-in connection technology

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Accessories

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

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

Primary-switched power supply MINI POWER for DIN rail mounting, input: 1-phase, output: 24 V DC/1,5 A, for the potentially explosive area

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Setpoint potentiometer

Setpoint adjuster - EMG 30-SP- 4K7LIN - 2940252

Setpoint value potentiometer, to set setpoints individually, resistance value 4,7 kΩ

Setpoint adjuster - EMG 30-SP-10K LIN - 2942124

Setpoint value potentiometer, to set setpoints individually, resistance value 10 kΩ

Terminal marking

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Accessories

Marker strip - SK 5,0 WH:REEL - 0805221

Marker strip, Roll, white, unlabeled, can be labeled with: THERMOMARK ROLL, THERMOMARK ROLL X1, THERMOMARK ROLLMASTER 300/600, THERMOMARK X1.2, THERMOMARK S1.1, Mounting type: Adhesive, Lettering field: continuous x 5 mm

DIN rail bus connectors - ME 6,2 TBUS-2 1,5/5-ST-3,81 GY - 2695439

DIN rail connector (TBUS), 5-pos., for bridging the supply voltage, can be snapped onto NS 35/... DIN rails according to EN 60715