

CMS-10R-DAC/DC12-48V-Z2 BOX1

4 D/A 0 ... 10 V | 2 Analog Inputs 4 ... 20 mA | 4 Relay Outputs | 10 ... 48 V DC



Power supply

Nominal operating voltage	10 ... 48 V DC
Maximum power consumption	6 W
Typical power consumption (without any output set)	< 1 W
Additional power consumption per output	0.45 W

Inputs

Number of analogue voltage / digital inputs	4
Number of analogue current inputs	2
Maximal voltage digital inputs	48 V DC
Logic level "1" digital inputs	> 6.0 V DC
Logic level "0" digital inputs	< 4.0 V DC
Nominal range analogue voltage inputs	0 ... 10 V, Compliant with IEC 60381-2
Voltage input impedance	196 kΩ
Nominal range analogue voltage inputs	4 ... 20 mA, Compliant with IEC 60381-1
Current input impedance	150 Ω
Resolution of analogue inputs	12 Bit
Measurement category	2
Sampling rate per channel	10 Hz

Outputs

Number of relay outputs	4
Type of terminal	CO
Contact material	AgNi
Rated voltage	250 V AC
Maximum switching voltage	400 V AC
Recommended minimum load	10 mA / 12 V
Rated current AC-1	10 A
Rated load AC-1	3 kVA
Rated load DC	see. fig. 2
Inrush current	80 A, 20 ms
Electrical endurance at rated load AC-1 (cycles)	> 30 000

Communication

eSIM	Embedded
Communication Standards	E-GSM (2G), E-UTRA (3G), LTE (4G)
Frequency bands Z1	E-GSM: B2, B3, B5, B8 E-UTRA: B1, B2, B4, B5, B6, B8, B19 LTE-FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20, B25, B26, B28 LTE-TDD: B38, B39, B40, B41
Coverage Z1	Worldwide
Frequency bands Z2	E-GSM: B3, B8 E-UTRA: B1, B8 LTE-FDD: B1, B3, B7, B8, B20, B28A
Coverage Z2	Europe, Middle East, Africa, South Korea, Thailand
Antenna connector type	SMA female
Antenna impedance	50 Ω
Antenna return loss	> 10 dB

Insulation

Insulation type	Reinforced
Insulation rating between all ports	2 kV / 1 min
Pollution degree	2
Overvoltage category	II
Rated impulse voltage	2.5 kV / 1min
Shock/vibration proof	IEC 61373

General data

Operation	Type 1 (IEC 60730-1)
Software class	Class A (IEC 60730-1)
Classification	Manual Control (IEC 60730-1)

Housing and environmental conditions

Storage temperature (no ice)	-40 ... 85 °C / -40 ... 185 °F
Operation temperature	-25 ... 70 °C / -13 ... 158 °F
Relative humidity, no condensation	10 ... 95 %
Ingress Protection	IP 40
Weight	260 g
Housing material	PA
Operation Altitude	Max. 2 000 m / 6 562 ft over sea level (without derating)
Mounting	DIN Rail (IEC 60715) and Panel mount
Operation Position	any
Dimensions	see fig. 3



fig. 1. Wiring diagram

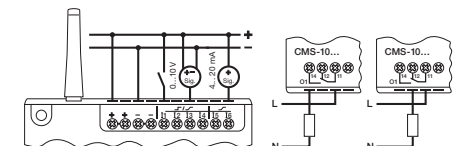


fig. 2. Max. breaking capacity RZ

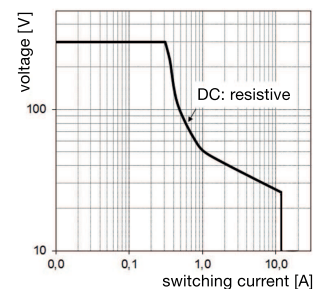
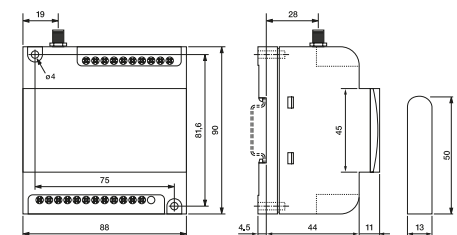


fig. 3. Dimensions (mm)



Technical approvals, conformities

Standards CISPR 32 / EN 55032; ETSI EN 301511; ETSI EN 301908-1/-2/-13; IEC/EN/BSI/AS/NZS/SANS 62368; IEC/EN/BSI/UL/CSA 60730; IEC 60381-1/-2; IEC 61000-6-2/-3

Approvals  

CMS-10R-DAC/DC12-48V-Z2 BOX1

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Wiring

Contact type control / main circuit	Screw connection
Conductor cross section control / main circuit	4 mm ² / AWG12 (Wire), 2.5 mm ² / AWG14 (Stranded), 1.00 mm ² / AWG17 (Ferrule). Use copper conductors only.
Stripping Length control / main circuit	8 mm / 0.31"
Nominal screw torque control / main circuit	0.5 Nm / 4.425 lbf in
Screwdrive control / main circuit	PZ2
Max. wire count control / main circuit	2
Dual sleeve control / main circuit	1

Included Accessories

Antennas for indoor use	CMS-ANT-STUB/INT-50MM
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Optional Accessories

Antennas for indoor use	CMS-ANT-BLADE/INT-150MM, CMS-ANT-MAG1/INT-2.5M
Antennas for outdoor use	CMS-ANT-MAG2/EXT-2.0M, CMS-ANT-BRACK/EXT-5M, CMS-ANT-PUCK/EXT-3M
Antenna connector	CMS-ANT-SMA
Antenna cables	CMS-ANT-KAB/2.5M, CMS-ANT-KAB/5M, CMS-ANT-KAB/10M, CMS-ANT-KAB/20M
Power supply	HDR-15-24, HDR-30-24
Indoor temperature sensor	RF01-U2-D
Temperature / humidity sensor	KS-110
Exterior temperature sensor	WF50 EXT-U4
PT100 / PT1000 digital transmitter	MV LKM 274
Level probe (liquid)	PS1



fig. 1. Wiring diagram

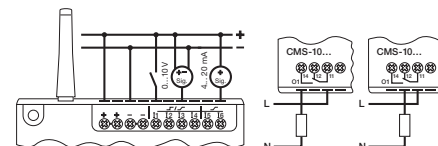


fig. 2. Max. breaking capacity RZ

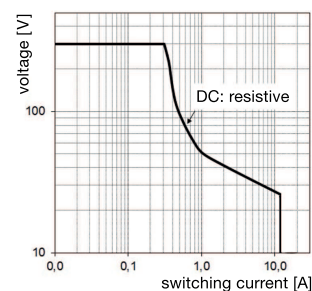
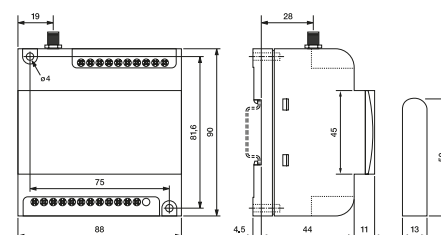


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