

**CMS-10R-DAC**

4 DI / AI 0 ... 10 V | 2 AI 4 ... 20 mA | 4 DO CO relay | 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 high level digital inputs	> 6.0 V DC
Logic low level digital inputs	< 4.0 V DC
Nominal range analogue voltage inputs	0 ... 10 V, Compliant with IEC 60381-2
Voltage input impedance	196 k $\Omega$
Nominal range analogue current inputs	4 ... 20 mA, Compliant with IEC 60381-1
Current input impedance	150 $\Omega$
Resolution of analogue inputs	12 Bit
Measurement category	2
Sampling rate per channel	10 Hz

**Outputs**

Number of relay outputs	4
Contact type	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 $\Omega$
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 / 1 min
Shock/vibration proof	

**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**

Ambient temperature storage (no ice)	-40 ... 85 °C / -40 ... 185 °F
Ambient temperature operation	-25 ... 70 °C / -13 ... 158 °F
Relative humidity, no condensation	10 – 95 %
Ingress Protection	IP20
Operation Altitude	max. 2'000 m over sea level (without derating)
Mounting	DIN-Rail (IEC 60715) and Panel mount
Operation Position	any
Housing material	PA
Dimensions	see fig. 3
Weight	260 g



fig. 1. Wiring diagram

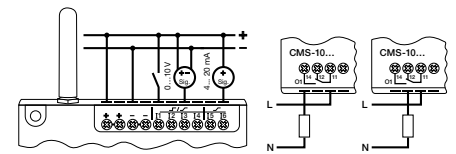


fig. 2. Max. breaking capacity RZ

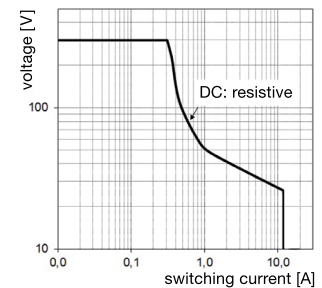
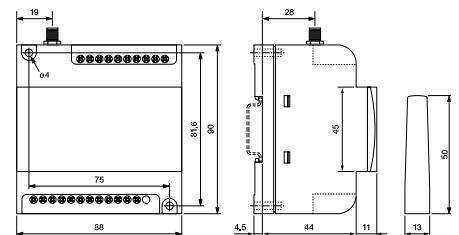


fig. 3. Dimensions (mm)

**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
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Approvals



**CMS-10R-DAC**

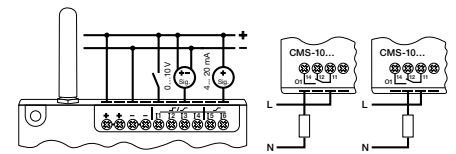
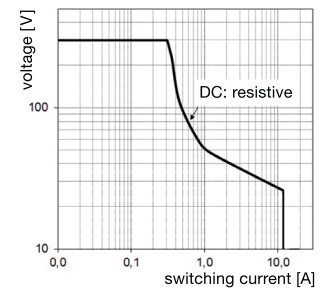
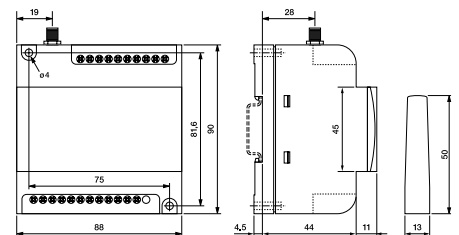
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**Wiring**

Type of terminal	Screw connection
Conductor cross section	2.5 mm <sup>2</sup> , AWG14 (Stranded) / 4 mm <sup>2</sup> , AWG12 (Wire) Use copper conductors only
Stripping Length	6 ... 7.5 mm / 0.24 ... 0.3"
Nominal screw torque	0.5 Nm / 4.425 lbf in
Screwdrive	PZ2
Max. wire count	2
Dual sleeve	1

**Accessories**

Antenna cables	CMS-ANT-KAB/5M CMS-ANT-KAB/10M CMS-ANT-KAB/20M CMS-ANT-KAB/2.5M
Power supply	HDR-15-24 HDR-30-24
Temperature / humidity sensor	KS-110
PT100 / PT1000 amplifier	MV LKM 274
Water level sensor	PS1
Indoor temperature sensor	RF01-U2-D
Thermostat	RTBSB-001-010
Exterior temperature sensor	WF50 EXT-U4
Antennas for indoor use	CMS-ANT-STUB/INT-50MM 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

**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/AS/NZS 61558-1/-2; IEC/EN/BSI/AS/NZS/SANS 62368; IEC/EN/BSI/UL/CSA 60730; IEC 60381-1/-2; IEC 61000-6-2/-3; IEC 62368-1
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Approvals

