

**CMS-10R-DA****6 digital / analogue inputs | 4 CO relay outputs | 12 ... 48 V DC | IoT****Power supply**

|                              |                 |
|------------------------------|-----------------|
| Nominal voltage              | 12 ... 48 V DC  |
| Operating voltage range      | 8.4 ... 60 V DC |
| Maximum power consumption DC | 13 W            |
| Typical power consumption DC | 5 W             |

**Inputs**

|                                     |                |
|-------------------------------------|----------------|
| Number of analogue / digital inputs | 6              |
| Nominal voltage digital inputs      | 12 ... 48 V DC |
| Logic high level digital inputs     | > 9.5 V DC     |
| Nominal range analogue inputs       | 0 ... 10 V     |
| Resolution of analogue inputs       | 12 Bit         |
| Sampling rate                       | 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    |
| Rated current                           | 10 A        |
| Minimum contact load relay outputs      | 10 mA, 12 V |
| Inrush current                          | 80 A, 20 ms |
| Rated load AC-1                         | 3 kVA       |
| Electrical endurance at rated load AC-1 | > 30 000    |

**Communication**

|                         |                                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| eSIM                    | Included                                                                                                                                                                      |
| 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  <br>LTE-FDD: B1, B2, B3, B4, B5, B7, B8, B12, B13, B18, B19, B20,<br>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,<br>B20, B28A                                                                                                        |
| Coverage Z2             | Europe, Middle East, Africa, South Korea, Thailand                                                                                                                            |
| Antenna connector       | 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           |

**General data**

|                                      |                                                           |
|--------------------------------------|-----------------------------------------------------------|
| Ambient temperature storage (no ice) | -40 ... 85 °C                                             |
| Ambient temperature operation        | -25 ... 70 °C                                             |
| Relative humidity, no condensation   | 10 – 95 %                                                 |
| Conductor cross section              | 2.5 mm <sup>2</sup> (Stranded) / 4 mm <sup>2</sup> (Wire) |
| Nominal screw torque                 | 0.5 Nm                                                    |
| Weight                               | 260 g                                                     |
| Protection degree                    | IP20                                                      |
| Housing material                     | PA / PC                                                   |

**Product reference**

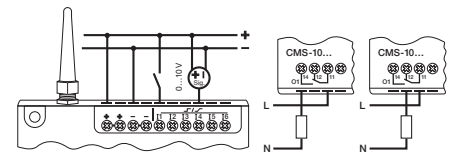
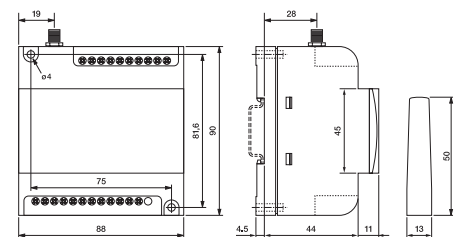
| Description                                          | Type                      | 12-48 |
|------------------------------------------------------|---------------------------|-------|
| CMS-10R-DA Zone Z2                                   | CMS-10R-DA/DC...V-Z2      | ✓     |
| KIT Zone Z2 (included: CMS-ANT-MAG2/2.5M, HDR-15-24) | CMS-10R-DA/DC...V-Z2-KIT1 | ✓     |
| CMS-10R-DA Zone Z1                                   | CMS-10R-DA/DC...V-Z1      | ✓     |
| KIT Zone Z1 (included: CMS-ANT-MAG2/2.5M, HDR-15-24) | CMS-10R-DA/DC...V-Z1-KIT1 | ✓     |

“...” list control circuit voltage to complete product references. | For customized kits please contact support.

**Accessories**

Additional accessories

See chapter 5.2

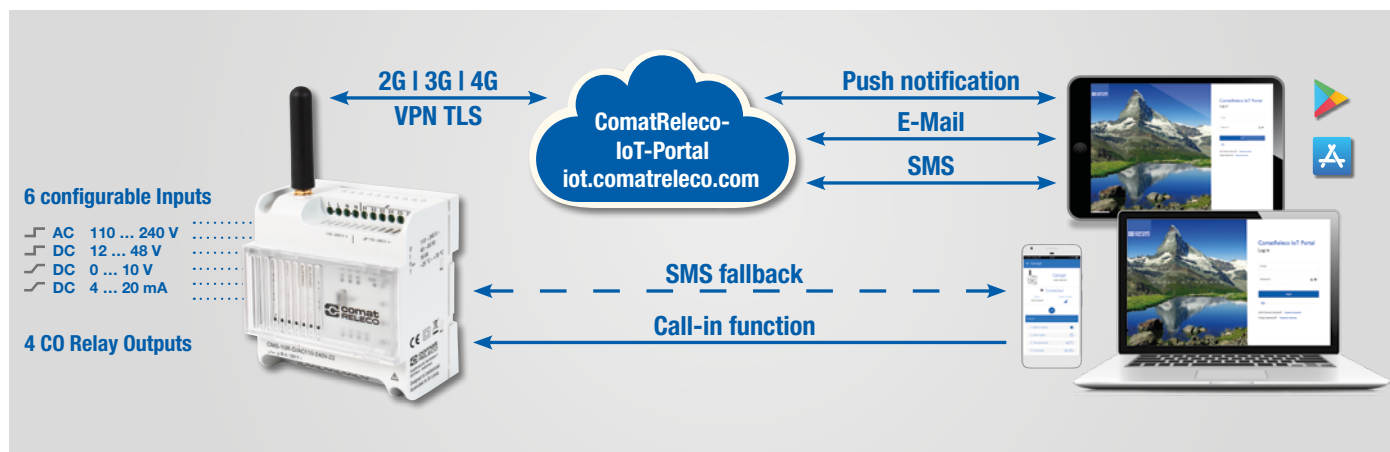
**fig. 1. Wiring diagram****fig. 2. Dimension (mm)****Standards and approvals**

|           |                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|
| Standards | IEC 60730-1; CISPR 32 /<br>EN 55032; EN 60730-1;<br>EN 61000-6-2; EN 61000-6-3;<br>ETSI EN 301 511;<br>ETSI EN 301 908-1/-2/-13 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|

**Approvals**

|                   |         |
|-------------------|---------|
| Datasheet version | WoR 2.1 |
|-------------------|---------|





### 2G, 3G, 4G communication with hard SIM

The CMS-10R is a remote monitoring and control unit for industrial and building technologies. It reports status changes of the digital or analog inputs through the mobile network via push notification, e-mail or SMS. The outputs are controlled via push notification from a web browser or Smart App. If required, the configured outputs can also be switched to the device via a telephone call (call-in function). The CMS-10R automatically selects the network generation with the highest field strength on site.

### Due to the cloud solution no telephone subscription fees are charged

You manage your user profile according to your needs. Various profiles are available for optimal use of the device. The annual license fee - free of charge in the first year of operation - as well as the costs incurred for any SMS traffic are billed via the embedded Invoice platform. The payments can be easily completed through invoicing or digital channels.

### Easy to configure

Wherever you are: You can switch and operate as you like. 4 steps and you are there:

- Log in to the ComatReleco IoT Portal - iot.comatreleco.com
- Selection of the desired hardware
- Define the bill-to party
- Configure and connect the device

### Your added values

- ComatReleco Messaging System incl. M2M SIM card + iOS or Android App
- No additional SIM required, plug'n play system
- Push notification via web browser / iOS / Android App, E-mail or SMS
- Remote device configuration via web browser
- Unique devices - ID for secure integration into the Swiss based cloud solution
- High operational reliability through VPN and TLS technologies
- Minimal operating costs thanks to web communication

### Basic identification principle (type ComatReleco Messaging System)

| 1       |   | 2   |   | 3        |   | 4  |   | 5   |
|---------|---|-----|---|----------|---|----|---|-----|
| CMS-10R | - | DAC | / | DC12-48V | - | Z2 | - | KIT |

#### 1. Product family

#### 2. Inputs

- D** = 6 Digital
- DA** = 6 Analog 0 ... 10 V / Digital
- DAC** = 4 Analog 0 ... 10 V / Digital  
2 Analog 4 ... 20 mA

#### 3. Nominal voltage:

AC 110 ... 240V  
DC 12 ... 48V

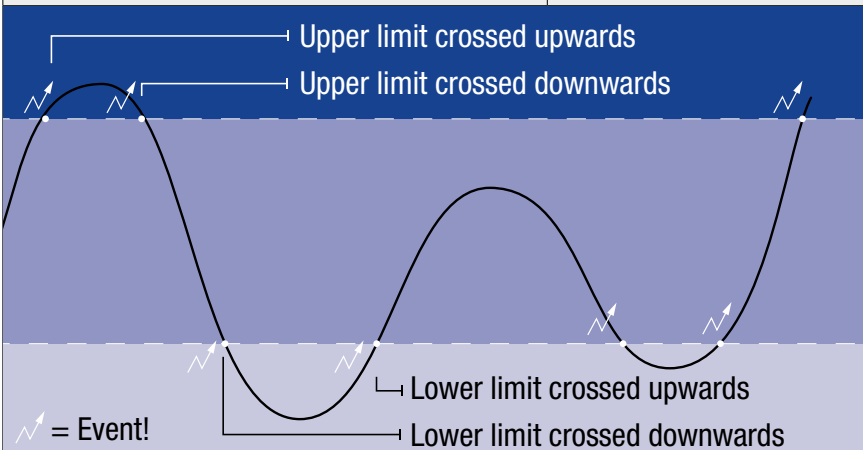
#### 4. Operating voltage:

- Z1** = Version for zone 1 (worldwide)
- Z2** = Version for zone 2 (Europe, Middle East Africa, Korea, Thailand)

#### 5. Packaging:

- = CMS-10R device with standard antenna 50 mm
- KIT1** = CMS-10R-... including CMS-ANT-MAG2/2.5M & HDR-15-24
- KIT2** = CMS-10R-... including CMS-ANT-MAG2/2.5M & HDR-30-24

## CMS-10R remote monitoring and control features

|         | Description                                                                         | Detail                         | CMS-10R-D | CMS-10R-DA | CMS-10R-DAC |
|---------|-------------------------------------------------------------------------------------|--------------------------------|-----------|------------|-------------|
| General | Notification at startup                                                             |                                | ●         | ●          | ●           |
|         | Notification at connected                                                           |                                | ●         | ●          | ●           |
|         | Notification at shutdown                                                            |                                | ●         | ●          | ●           |
|         | Notification at disconnected                                                        |                                | ●         | ●          | ●           |
|         | Notification at period event count reached                                          |                                | ●         | ●          | ●           |
|         | Periodic notification                                                               | hourly, daily, weekly, monthly | ●         | ●          | ●           |
|         | Up to five receivers per notification selectable *                                  |                                | ●         | ●          | ●           |
|         | Notification escalation *                                                           |                                | ●         | ●          | ●           |
| Inputs  | Digital inputs                                                                      |                                | ●         | ●          | ●           |
|         | Analogue 0 ... 10 V / digital inputs                                                |                                |           | ●          | ●           |
|         | Analogue inputs 4 ... 20 mA                                                         |                                |           |            | ●           |
|         | Notification digital input "on"                                                     |                                | ●         | ●          | ●           |
|         | Notification digital input "off"                                                    |                                | ●         | ●          | ●           |
|         | Analogue value: configurable scaling                                                |                                | ●         | ●          | ●           |
|         |  |                                |           | ●          | ●           |
|         | Notification of analogue value in event of value change                             | Change > x                     |           | ●          | ●           |
|         | Periodic notification of analogue values                                            | hourly, daily, weekly, monthly |           | ●          | ●           |
|         | Relay outputs                                                                       |                                | ●         | ●          | ●           |
| Outputs | SMS control messages                                                                |                                | ●         | ●          | ●           |
|         | Call-in function                                                                    |                                | ●         | ●          | ●           |
|         | Output set time                                                                     | 0.1 s ... 99.9 h               | ●         | ●          | ●           |

\* Depending upon chosen subscription plan

## Frequency bands

| Standard  | Zone | Frequency bands                                                                                                                                                                                                                                                                                                   |
|-----------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2G E-GSM  | Z1   | E-GSM: B2 (1900 MHz), B3 (1800 MHz), B5 (850 MHz), B8 (900 MHz)                                                                                                                                                                                                                                                   |
|           | Z2   | E-GSM: B3 (1800 MHz), B8 (900 MHz)                                                                                                                                                                                                                                                                                |
| 3G E-UTRA | Z1   | E-UTRA: B1 (2100 MHz), B2 (1900 MHz), B4 (1700 MHz), B5 (850 MHz), B6 (800 MHz), B8 (900 MHz), B19 (800 MHz)                                                                                                                                                                                                      |
|           | Z2   | E-UTRA: B1 (2100 MHz), B8 (900 MHz)                                                                                                                                                                                                                                                                               |
| 4G LTE    | Z1   | LTE-FDD: B1 (2100 MHz), B2 (1900 MHz), B3 (1800 MHz), B4 (1700 MHz), B5 (850 MHz), B7 (2600 MHz), B8 (900 MHz), B12 (700MHz), B13 (700 MHz), B18 (850 MHz), B19 (850 MHz), B20 (800 MHz), B25 (1900 MHz), B26 (850 MHz), B28 (700 MHz)<br>LTE-TDD: B38 (2600 MHz), B39 (1900 MHz), B40 (2300 MHz), B41 (2500 MHz) |
|           | Z2   | LTE-FDD: B1 (2100 MHz), B3 (1800 MHz), B7 (2600 MHz), B8 (900 MHz), B20 (800 MHz), B28A (700 MHz)                                                                                                                                                                                                                 |