



ComatReleco Messaging System

CMS-10R



The innovative IoT solution at a glance

- IoT portal (cloud) as a central access point
 - Constantly evolving functionalities
 - Configuration and maintenance of connected devices from anywhere
 - Simple control and monitoring with mobile app (smartphone/tablet)
 - Embedded eSIM that works worldwide
 - Over-the-air (OTA) updates
 - Event-driven notifications with timestamp and event log
 - Notification via voice call, push, email, pager and SMS
 - Configurable real-time clock (RTC) with automatic summer time changeover
 - Configurable digital and analogue inputs and outputs
- The latest security standards are used

***CMS-10R: remotely configurable,
reliable monitoring and control
system with 4G, 3G and 2G
wireless technologies***



***'All-in' device with integrated eSIM,
it can be used worldwide.
No prepaid cards or mobile
subscriptions required.***



Digital and analog inputs:

Three device types are available, with different inputs



AC	0 ... 240 V
DC	0 ... 48 V
DC	0 ... 10 V
DC	4 ... 20 mA

6 Inputs

**App and E-Mail, additionally SMS:**

Push, e-mail, pager notification, voice call or SMS as standard communication options. They use the bidirectional communication channels according to their needs.

Plug and Play:

Wireless programming via the internet with PC, smart phone or tablet.

**Easy device swap:**

Upload the existing configuration file to the new CMS-10R.

**All in one:**

The CMS-10R has full out-of-the-box functionality. Mobile communication is included.



ComatReleco Messaging System CMS-10R

The CMS-10R is a remote monitoring and control system for industrial and building technology. It reports status changes to the digital or analogue inputs via the mobile phone network by push notification, email, pager notification, voice call or SMS. The outputs are controlled via the Smart App web browser. If necessary, the configured outputs can also be switched with SMS control messages and a call-in function (call to the device). The CMS-10R automatically selects the network generation with the highest field strength at the installation site.

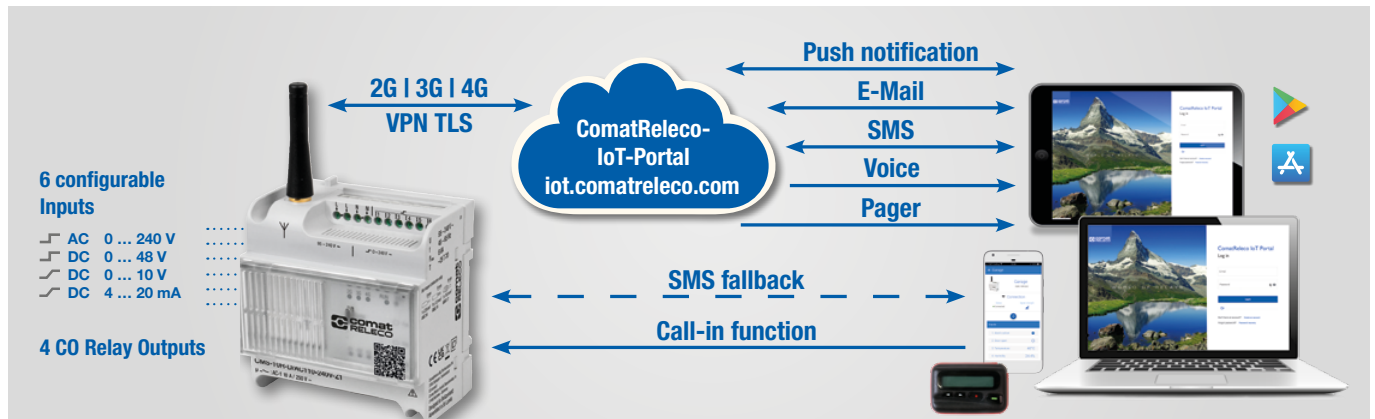
You manage your user profile according to your needs. Several service profiles are available for the optimum use of the device. The annual licence fee – free of charge in the first year of operation – and the costs incurred for any SMS traffic are billed via the embedded invoice platform.

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

- Log in to the ComatReleco IoT portal – iot.comatreleco.com
- Select the desired hardware
- Define who's receiving the bill
- Configure and connect the device

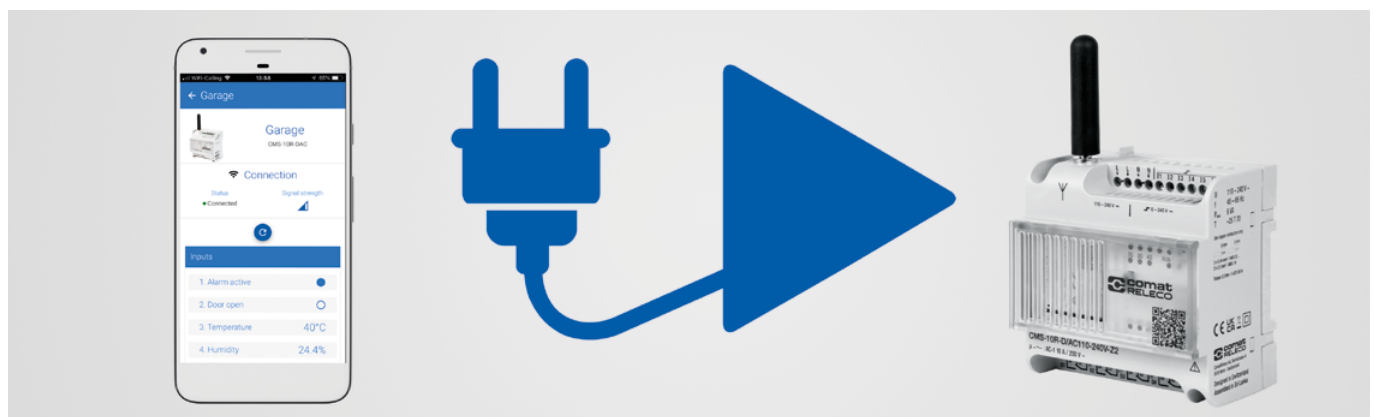
The ComatReleco Messaging System CMS-10R. Your advantages:

- + The integrated eSIM for 4G, 3G, 2G communication does not require an additional contract with a mobile provider
- + Worldwide 'All-in' communication and service packages provided, ComatReleco is the single point of contact
- + The device can be configured wherever you are and does not need a cable connection
- + Several service profiles with transparent operating costs can be selected.
- + Firmware updates are installed via the ComatReleco IoT portal
- + An unique device ID is connected with the customer project
- + Data transfer between the device and the cloud is fully encrypted – high operational safety is achieved through VPN and TLS technologies
- + The hardware connection is as of the previous CMS-10F product

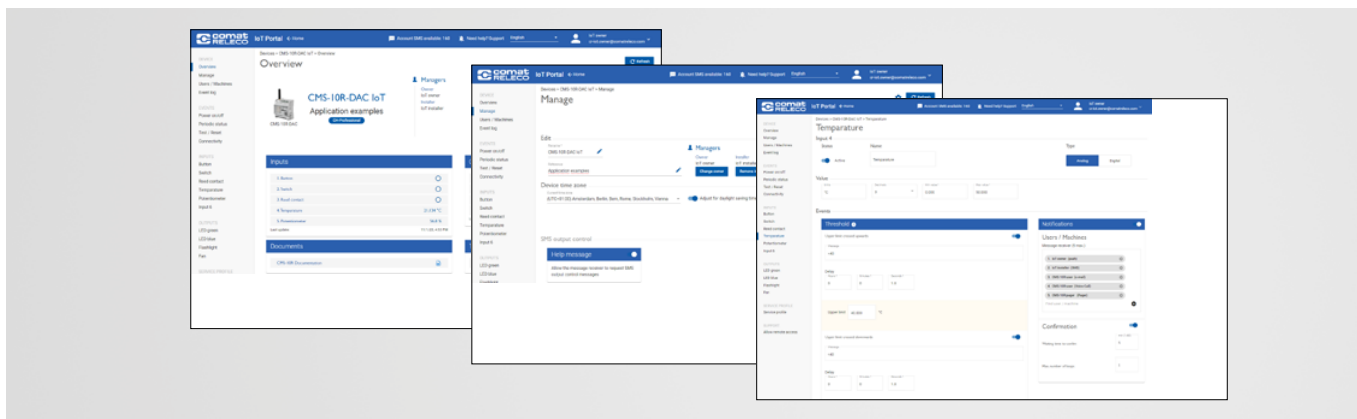


- Remote monitoring and control system for industrial and building technology
- 4G, 3G and 2G communication; the CMS-10R automatically selects the network generation with the highest field strength on site
- ComatReleco 'all-in' IoT messaging system with built-in eSIM
- Transparent costs thanks to selectable service profiles
Device configuration via web browser in the ComatReleco IoT portal at iot.comatreleco.com
- Each CMS-10R device is linked to the user using a unique serial number
- The CMS-10R device communicates via web browser, Android and iOS app, with push, email, pager notification, voice call or SMS
- The device reports all status changes of the digital or analogue inputs; outputs can be activated as required
- To increase system reliability, the CMS-10R can send SMS directly (SMS fallback) if the cloud is not available.
- If necessary, the configured outputs can be activated by call-in or SMS
- The configuration and message texts can be freely defined
- The device can be localised at the customer's request
- The device reports power failures on site

Commissioning



- The device is configured via web browser in the ComatReleco IoT portal at iot.comatreleco.com
- The ComatReleco IoT portal can be accessed with any standard web browser and is thus independent of the IT hardware
- Android and iOS apps are also available
- The device can be configured wherever you are and does not need a cable connection
- Firmware updates are displayed in the ComatReleco IoT portal and will be installed with the user's approval



- The connection between the device and the Swiss-based ComatReleco IoT portal is fully encrypted.
- The high operational safety is achieved through VPN and TLS encryption technologies.
- You are completely free to configure the input and output of the device. You decide which inputs and outputs are activated and how they are physically loaded.
- You define who and how the messages are sent from the device to the recipient; be it by push notification, e-mail, pager notification, voice call or SMS
- It is possible to open a free support session with ComatReleco at any time.

Service profile of your choice

- There are three different service profiles to choose from: Eco, Standard and Professional
- The «Standard» service profile is included in the first year of operation
- The operating year starts when the device is paired with the owner account
- The service profiles include all communication charges
- The fee is billed via the ComatReleco IoT portal
- Additional SMS packages can be purchased per owner account as an option. The SMS package is available to all devices paired with the owner account
- You have full control over operating costs

	Eco	Standard	Professional
Number of events	60 per month	600 per month	Unlimited
Message receivers per input/output	2	5	5
Number of message receivers in user list	4	10	50
SMS notifications	—	10 per month	30 per month
Number of confirmation loops	Max. 1×	Max. 3×	Max. 5×
Power ON/Power OFF notification	✓/✓	✓/✓	✓/✓
Call-in per month	—	Unlimited	Unlimited
Network status message	✓	✓	✓
Changes of device configuration	Unlimited	Unlimited	Unlimited
eSIM: valid for zone 1 or 2	Included	Included	Included
Optional additional SMS packages	✓	✓	✓



- The three device types CMS-10R-D, CMS-10R-DA and CMS-10R-DAC cover all ComatRelco devices using 2G mobile wireless communication technology in the field
- The dimensions, the wiring diagram and the rated voltages are identical to the previous device series
- The available configuration file can be reused

Glossary

Event

Depending on the customer's configuration, the device sends push, e-mail, pager notifications, voice calls or text messages. Depending on the service profile, a certain number of events are available per month. SMS messages are handled separately.

Message receiver

The message recipient receives the CMS-10R notifications and may be authorised to manage the configuration of the device. The message recipient is listed in the user list of the device and is selected for certain notifications via push, e-mail, pager, voice call and/or SMS.

Owner of device

The only person or company in charge of selecting the service profile and / or SMS package for all owned devices and finalize the payment.

Device configuration

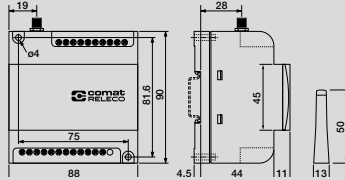
Any change of the device set up performed through the ComatRelco IoT portal.

Device pairing

Process to connect the device with the ComatRelco IoT portal account.

Accessories

CMS-ANT-SPEZ2/5M	Exterior antenna 5 m cable
CMS-ANT-MAG2/2.5M	Magnetic pod antenna 2.5 m cable
CMS-ANT-KAB/...M	Antenna cable SMA male / female 5 m 10 m 20 m
HDR-15-24	Power supply 15 W, 24 V DC
HDR-30-24	Power supply 30 W, 24 V DC
MV-LKM-274	PT100 / PT1000 amplifier 0 ... 10 V output
RF05, RF01-U2-D	Indoor temperature sensor 0 ... 50 °C 0 ... 10 V output
RTBSB-001-010	Thermostat 5 ... 30 °C Cooling or heating 1 CO
WF50-EXT-U4	Exterior temperature sensor -50 ... 50 °C 0 ... 10 V output
KS-110	Temperature / humidity sensor -40 ... 80 °C 0 ... 100 % rH 0 ... 10 V output Cable length 2 m
PS1	Water level sensor 0 ... 0.5 bar 0 ... 10 V output

Typ		CMS-10R-D/AC110-240V-Z1 CMS-10R-D/AC110-240V-Z2	CMS-10R-DA/DC12-48V-Z1 CMS-10R-DA/DC12-48V-Z2	CMS-10R-DAC/DC12-48V-Z1 CMS-10R-DAC/DC12-48V-Z2
Nominal voltage and frequencies		95 - 240 V ~, 45 - 65 Hz	10 - 48 V =	10 - 48 V =
Maximum / typical power consumption		6 VA / < 1 VA	6 W / < 1 W	6 W / < 1 W
Inputs		6 × digital trigger level 24 V AC	6 × each input selectable digital or analog <i>Digital:</i> trigger level 6 V DC <i>Analog:</i> 0 ... 10 V DC	4 × voltage inputs (I1 ... I4), each input selectable digital or analog <i>Digital:</i> trigger level 6 V DC <i>Analog:</i> 0 ... 10 V DC 2 × current inputs (I5, I6), both only analogue <i>Analog:</i> 4 ... 20 mA
Number of switching outputs / Maximum switching capability		4 × / 10 A 250 V, total current of all outputs 20 A		
Ambient conditions		-40 ... +85 °C ambient temperature -25 ... +70 °C operating temperature 10 ... 95 % relative humidity (no condensation) Protection degree: IP 20		
Minimum contact loading at the outputs		10 mA, 12 V		
Zone Z1	Frequency bands	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	worldwide		
Zone Z2	Frequency bands	E-GSM: B3, B8 E-UTRA: B1, B8 LTE-FDD: B1, B3, B7, B8, B20, B28A		
	Coverage	Europe, Africa, Middle East, South Korea, Thailand		
Dimensions				

Order references

Zone 1		Zone 2	
CMS-10R-D/AC110-240V-Z1	With standard antenna 50 mm	CMS-10R-D/AC110-240V-Z2	With standard antenna 50 mm
CMS-10R-DA/DC12-48V-Z1	With standard antenna 50 mm	CMS-10R-DA/DC12-48V-Z2	With standard antenna 50 mm
CMS-10R-DA/DC12-48V-Z1-KIT1	Including CMS-ANT-MAG2/2.5M & HDR-15-24	CMS-10R-DA/DC12-48V-Z2-KIT1	Including CMS-ANT-MAG2/2.5M & HDR-15-24
CMS-10R-DA/DC12-48V-Z1-KIT2	Including CMS-ANT-MAG2/2.5M & HDR-30-24	CMS-10R-DA/DC12-48V-Z2-KIT2	Including CMS-ANT-MAG2/2.5M & HDR-30-24
CMS-10R-DAC/DC12-48V-Z1	With standard antenna 50 mm	CMS-10R-DAC/DC12-48V-Z2	With standard antenna 50 mm
CMS-10R-DAC/DC12-48V-Z1-KIT1	Including CMS-ANT-MAG2/2.5M & HDR-15-24	CMS-10R-DAC/DC12-48V-Z2-KIT1	Including CMS-ANT-MAG2/2.5M & HDR-15-24
CMS-10R-DAC/DC12-48V-Z1-KIT2	Including CMS-ANT-MAG2/2.5M & HDR-30-24	CMS-10R-DAC/DC12-48V-Z2-KIT2	Including CMS-ANT-MAG2/2.5M & HDR-30-24

Zone 1	Worldwide = Zone 2 + Argentina, Armenia, Australia, Azerbaijan, Belarus, Bolivia, Brazil*, Cambodia, Canada, Chile, China*, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, French Antilles, French Guiana, Georgia, Guatemala, Guyana, Haiti, Honduras, Hong Kong, India, Indonesia, Israel, Jamaica, Japan, Kazakhstan, Kuwait, Kyrgyzstan, Macao, Malaysia, Mauritius, Mexico, Moldova, New Zealand, Nicaragua, Panama, Paraguay, Peru, Philippines, Puerto Rico, Réunion, Russia*, Singapore, Sri Lanka, Suriname, Swaziland, Taiwan, Tajikistan, Trinidad and Tobago, Turkey*, Uruguay, USA, Uzbekistan, Venezuela
Zone 2	Europe (Andorra, Albania, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faroe Islands, Finland, France, Germany, Gibraltar, Greece, Guernsey, Hungary, Iceland, Ireland, Isle of Man, Italy, Jersey, Kosovo, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom, Vatican City), Middle East (Bahrain, Qatar, Saudi Arabia, United Arab Emirates*), Africa (Cameroon, Congo, Egypt, Gabon, Ghana, Ivory Coast, Kenya, Morocco, Nigeria, Senegal, South Africa), South Korea, Thailand

*on request

