ComatReleco Messaging System

CMS-10R

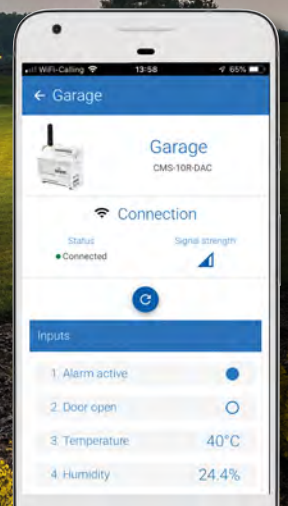**'All-in' CMS-10R ComatReleco Messaging System**

- Wireless remote monitoring and control system
- For use in 4G, 3G, 2G mobile networks
- Built-in eSIM technology for worldwide use
- No separate contract is necessary with a mobile provider
- Device communication via web browser – iot.comatreleco.com
- Push notification via Android or iOS apps, e-mail and SMS
- Configurable inputs and outputs
- Guaranteed alert in the event of blackout on site

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.

CMS-10R

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:
You will be alerted by push notification and remote control is carried out via app. Communication via SMS can also be activated.

Plug and Play:
Wireless programming via the internet with PC, smart phone or tablet.

PC

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 of the digital or analogue inputs via the mobile network through push notification, e-mail or SMS. The outputs are controlled by push notification via web browser or smart app. If required, the configured outputs can also be switched with a call-in function (call to the device). The CMS-10R automatically selects the network generation with the highest field strength on site.
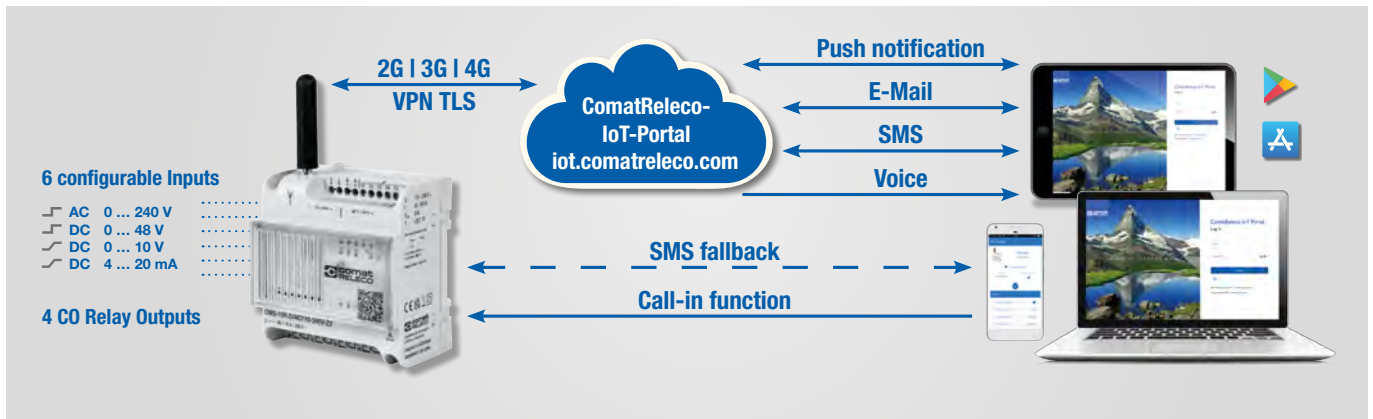
You manage your user profile according to your needs. Several service profiles are available for the optimum use of the device. The annual licence fee - free of charge in the first year of operation - and the costs incurred for any SMS traffic are billed via the embedded invoice platform.

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
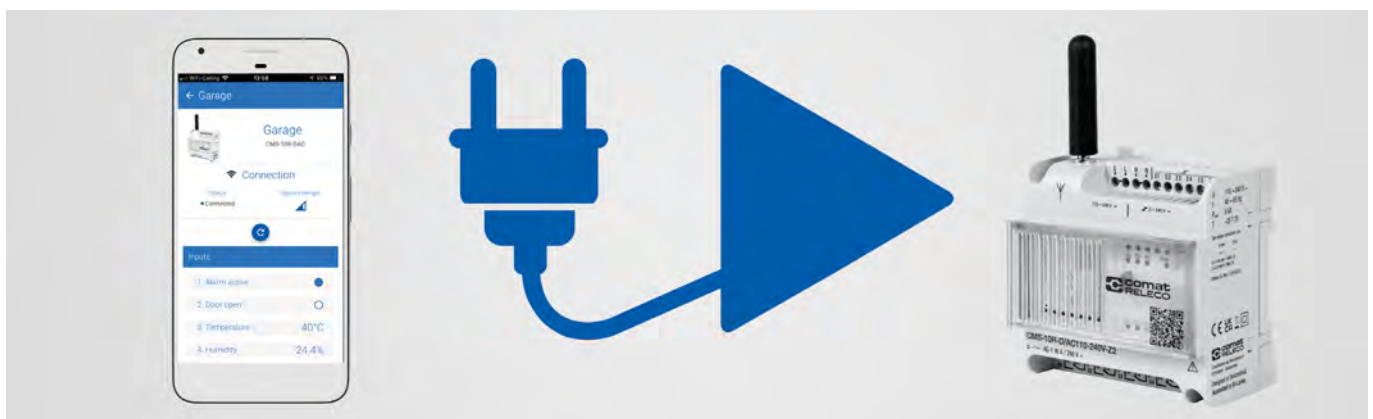• Define who's receiving the bill
• Configure and connect the device

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

ComatReleco AG I Bernstrasse 4 | CH-3076 Worb | Phone +41 31 838 55 77 | Fax +41 31 838 55 99
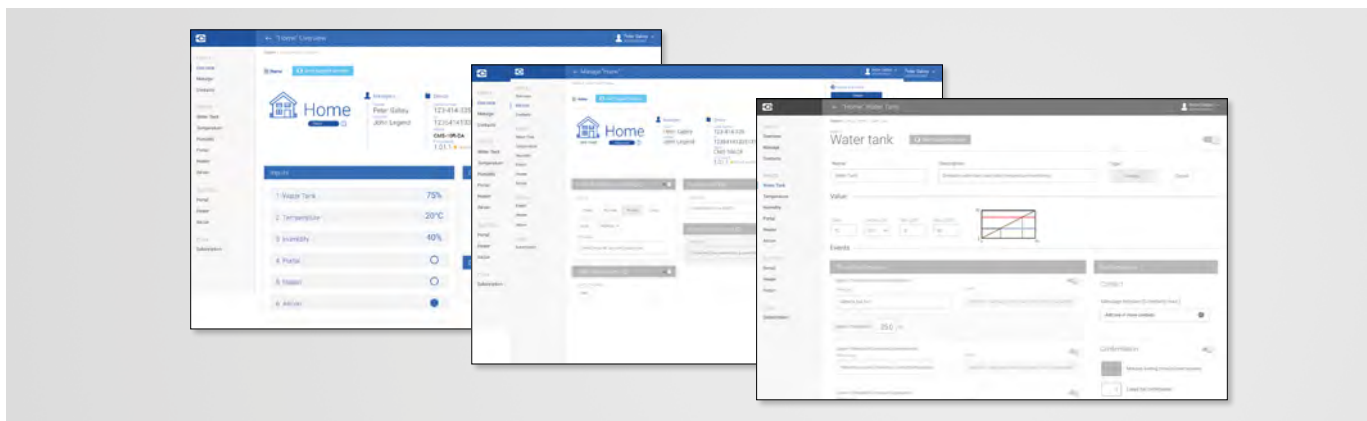comatreleco.com | info@comatreleco.com | WorldofRelays.com

3

- Remote monitoring and control system for industrial applications and building services
- 4G, 3G and 2G communication; the CMS-10R automatically selects the network generation with the highest field strength at the site of operation
- ComatReleco 'All-in' IoT Messaging System with built-in eSIM
- Transparent costs through choosable service profiles
- The device is configured via web browser in the ComatReleco IoT portal
- Every CMS-10R device is paired with the user by means of a unique serial number

- The CMS-10R device communicates via web browser, Android and iOS app, by e-mail and SMS
- The device reports any status changes to digital or analogue inputs; outputs can be activated when required
- To increase the system reliability, the CMS- 10R can send SMS directly (SMS fallback), if the cloud is not available.
- Call-in or SMS can be used to activate the configured outputs in case of need
- The configuration and message texts are freely defined
- If requested by the customer, the device can be located
- 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 sends the messages from the device to the recipient and how; this may be push notifications, email 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	1500 per month
Message receivers per input/output	2	5	5
Number of message receivers in user list	4	10	30
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	✓	✓	✓

ComatReleco AG I Bernstrasse 4 I CH-3076 Worb I Phone +41 31 838 55 77 I Fax +41 31 838 55 99
comatreleco.com I info@comatreleco.com I WorldofRelays.com

5

- The three device types CMS-10R-D, CMS-10R-DA and CMS-10R-DAC cover all ComatReleco 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
Any output generated by the CMR-10R device to the ComatReleco IoT portal, according to the device configuration specified by the customer. Only one event is counted when a particular input or output has generated a message sent via one or more push notifications or emails. SMS messages are handled separately.

Message receiver
The message receiver gets CMS-10R notifications and can be authorised to manage the configuration of the device. The message receiver is listed in the owner's user list and is selected for specific devices.

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 perfomed through the ComatReleco IoT portal.

Device pairing
Process to connect the device with the ComatReleco 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

CMS-10R

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 *Digital:* trigger level 6 V DC *Analog:* 0 … 10 V DC	4 × voltage inputs (I1…I4), each input selectable digital or analog *Digital:* trigger level 6 V DC *Analog:* 0 … 10 V DC 2 × current inputs (I5, I6), both only analogue *Analog:* 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		
Zone Z1 — Coverage	worldwide		
Zone Z2 — Frequency bands	E-GSM: B3, B8 E-UTRA: B1, B8 LTE-FDD: B1, B3, B7, B8, B20, B28A		
Zone Z2 — Coverage	Europe, Africa, Middle East, South Korea, Thailand		
Dimensions			

Order references

Zone 1

CMS-10R-D/AC110-240V-Z1	With standard antenna 50 mm
CMS-10R-DA/DC12-48V-Z1	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-Z1-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-Z1-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

Zone 2

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

ComatReleco AG I Bernstrasse 4 I CH-3076 Worb I Phone +41 31 838 55 77 I Fax +41 31 838 55 99
comatreleco.com I info@comatreleco.com I WorldofRelays.com

7

45013-033-51-011