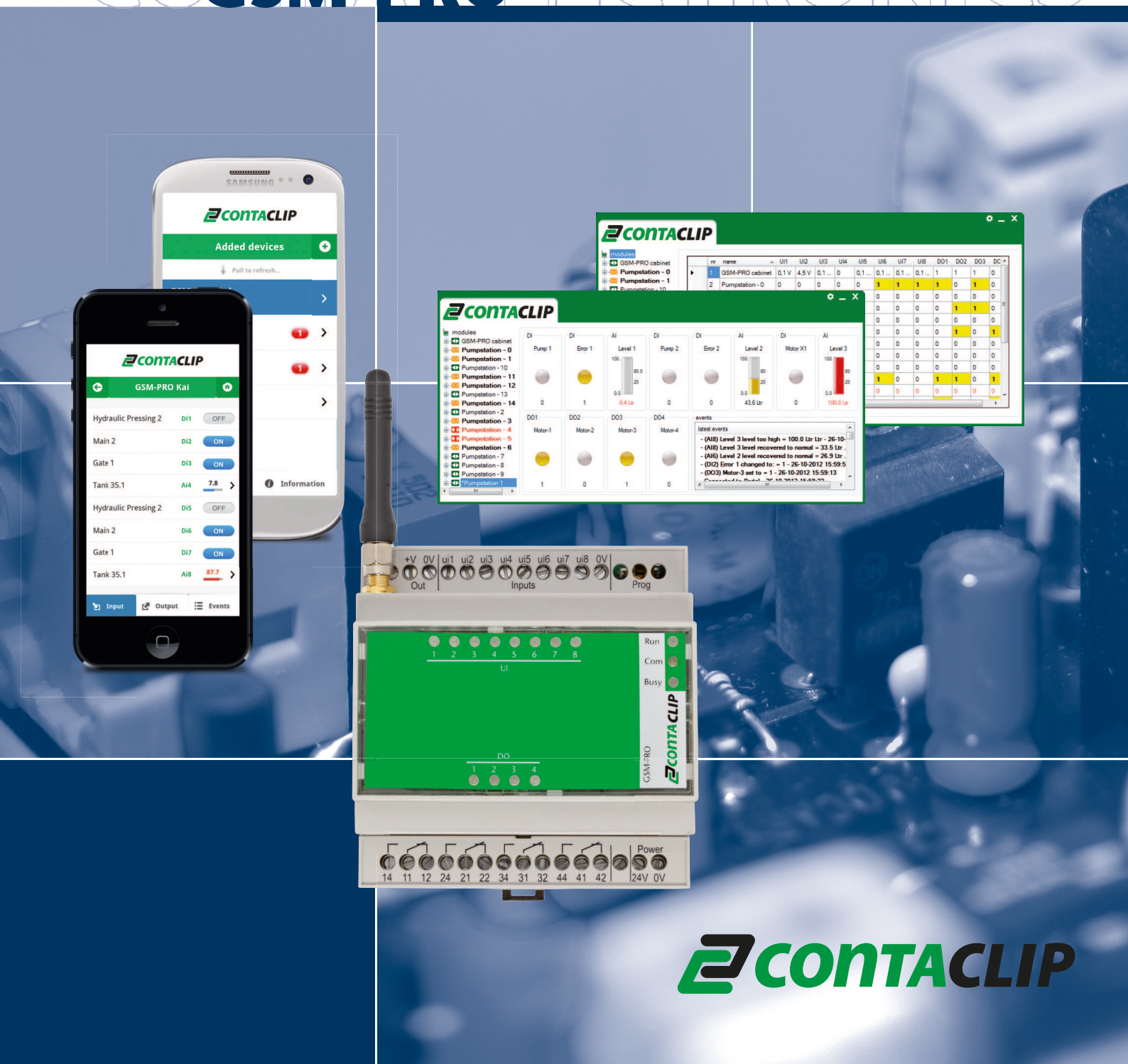
CONTA-ELECTRONICS

GSM-PRO

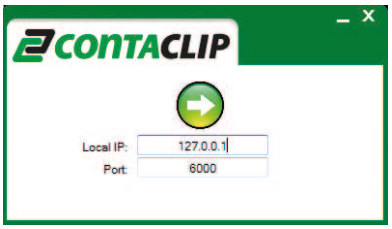


CONTACLIP

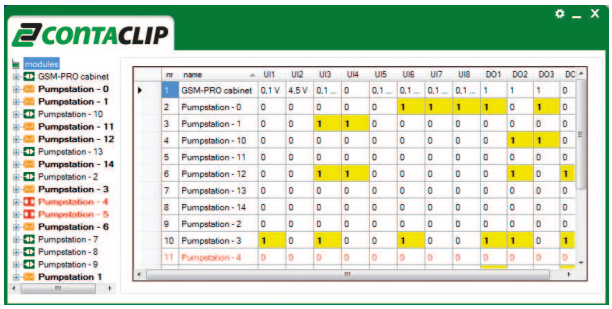
Portal Software

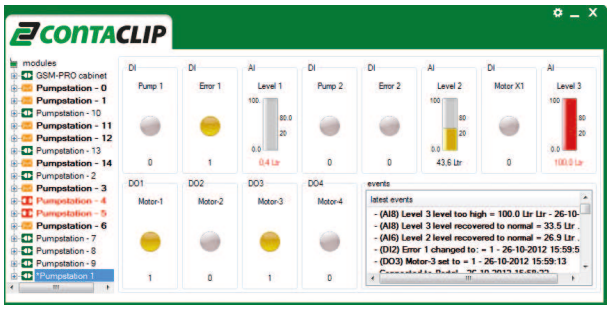
The **GSM-PRO**, like most SMS modules, are often used as stand-lone units in the field. These modules are put to use at various remote locations even though they normally have configurations which are very similar. It is often quite helpful to have one overall view of the status of all modules used in the field. The new **GSM-PRO** portal software from **CONTA-CLIP** offers you precisely this possibility. This software is very easy to install and configure. All modules in the field can now be easily monitored and run from a single local site or control panel.

The **GSM-PRO** portal can be installed on any Windows PC (XP, Vista, or W7). The field modules use port forwarding to communicate with the portal software so that they can be monitored and controlled. Specific IP addresses and ports must first be configured on the **GSM-PRO** modules in the field and in the portal software in order to enable this functionality. Pre-installed modules can also be integrated later into the portal by using OTA configuration.



Once the portal software is started on the PC, all modules are quickly reported.
They are then listed in alphabetical order on the portal.





The portal displays an overview of registered **GSM-PRO** modules, which already shows the status of all detected inputs and outputs. Any state changes to the inputs or outputs are marked yellow in the overview. So even when many modules are registered with the portal, changes to any one module are easily visible. In addition to this monitoring function, the outputs of all field modules can be controlled directly. By clicking the mouse on the corresponding button in the portal software, a broadcast signal is sent out and the selected outputs are activated.

When a module is selected, a window opens showing detailed information about that particular module. The specific names of the I/Os are displayed along with the standardized abbreviations of the **GSM-PRO** module. All module outputs can be controlled by simply clicking on the corresponding buttons. The „Events Log“ lists all actions and I/Os for the module. This log can also be easily exported.

The **GSM-PRO** portal provides a clear, versatile monitoring and control system for **GSM-PRO** modules. It can be easily implemented without any prior programming knowledge.

Options and possibilities

GSM-PRO – perfect for communication

CONTA-CLIP's GSM-PRO module offers a remote control and maintenance solution which allows you to monitor and control decentralized facilities.

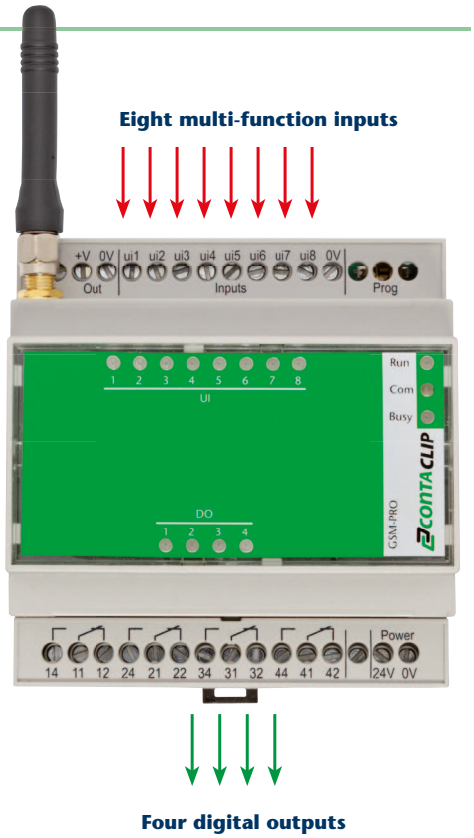
The **GSM-PRO** module informs you when the process reaches a user-defined status or limit value. Digital and analogue inputs values can also be transmitted via e-mail or SMS (text message). The digital relay outputs can be switched using an SMS sent from the decentralized control room or from the service technician.

Thus, the process can be monitored and controlled remotely.

Monitoring and controlling the **GSM-PRO** modules is even easier when you use our iPhone or Android App. If you are using multiple modules and you need a complete overview of all modules in the field at a glance, then **CONTA-CLIP's** portal software provides another helpful solution.

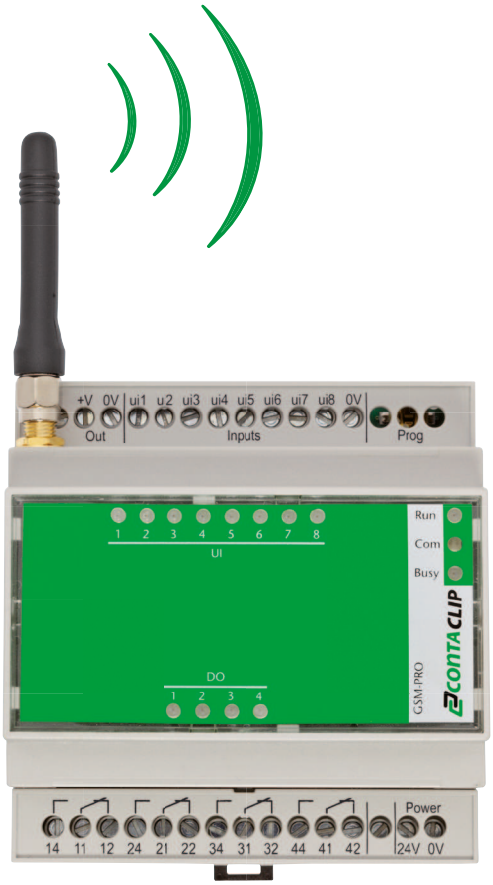
All of the module inputs, output and associated functions can be easily configured using the module software included in the delivery.

The wide-range input makes it possible to operate the **GSM-PRO** module with supply voltages from 10 to 30 VDC. So the I/O module can also be used in mobile applications, such as those for the transportation sector.



Inputs

You can stay up to date with just one SMS or e-mail message.



The **GSM-PRO** module features eight multi-function inputs. The input module may be selected as either digital (24 V DC) or analogue (0 to 10V), so that many different signal levels can be connected.

A designated person or group from the built-in address book will then be notified with an SMS or e-mail message if a specified status changes on the input side. The software allows you to easily specify the notification status, the person or group to be notified, and the content of the SMS. You can also query the current status of the process or machine simply by sending a query SMS message. The query message can specify specific inputs or all inputs.

Analogue inputs

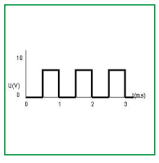
The required measurement units can be custom defined on the analogue inputs (i.e., kg, bar, etc.). You can then monitor an analogue process and have an message sent out depending on various circumstances:

- When an input exceeds a defined maximum limit,
- When an input is below a defined maximum limit,
- When an input returns to a normal state within the specified limits.

E-mail

E-mails are sent directly from the **GSM-PRO** module via an SMTP server to the recipient. The **CONTA-CLIP** server is set as the standard server.

The software also allows you to set up your own server.

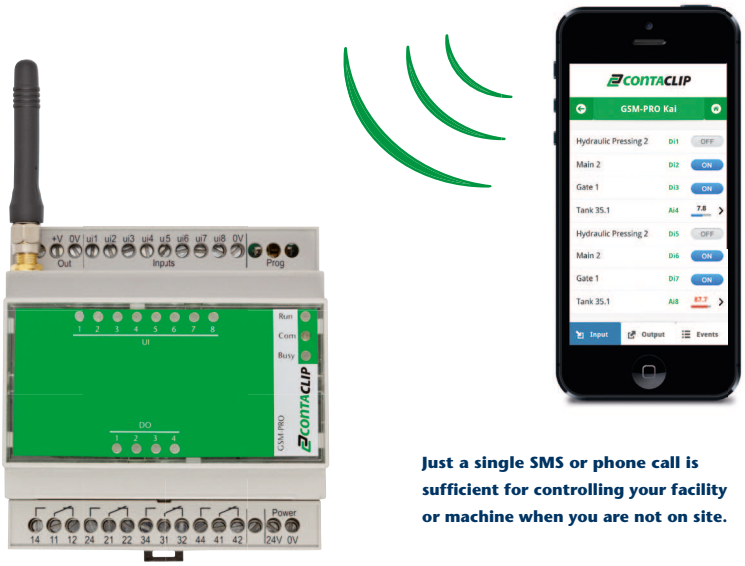


Outputs

The **GSM-PRO** module features four relay outputs (four COs) with 250V/5A. The versatility of the outputs enables machine and facility functions to be controlled even when you are not on-site.

The status of one or more outputs can be queried with a single SMS text message. When a process requires a control pulse, the outputs can also be controlled with an SMS. An output can also be activated simply by calling it up when using the call-in function. If an output only needs to be controlled for a specific duration (to issue a reset pulse, for example), then the output can be activated for a period between 1 and 36,000 seconds using an SMS or phone call to activate the one shot function.

It is also possible to link an output internally to a digital input. So as soon as the input switches to „one“, an SMS or e-mail is sent out and the corresponding output is switched.



Just a single SMS or phone call is sufficient for controlling your facility or machine when you are not on site.

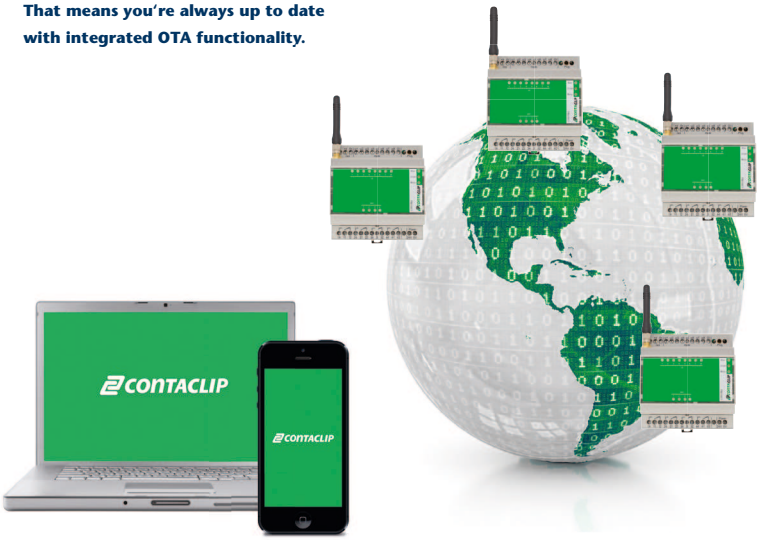
OTA (over-the-air) capabilities

In many systems or machines, some parameters or user entries may need to be changed after the installation is completed. In such cases you may also need to change parameters on the **GSM-PRO** module. The **GSM-PRO** module features OTA (over-the-air) functions for just such instances. This functionality allows you to change parameters without having to be on site:

OTA configuration
The initial configuration process must always take place via a direct USB connection between the **GSM-PRO** module and the PC. When the APN settings are specified during this initial configuration, it is still possible to access the module later via OTA and change the configuration. Whether you're adding a new phone number of a user, a new I/O setting, a change in the module name or any other change: the settings on all **GSM-PRO** modules can easily be changed from remote locations.

OTA firmware updates
The **GSM-PRO** module can also update its firmware using OTA, so modules with different versions can always be kept up to date. The newest software can be installed remotely. You can also add new functions and configure them without being on site.

That means you're always up to date with integrated OTA functionality.



The OTA firmware update may be carried out in two different ways:

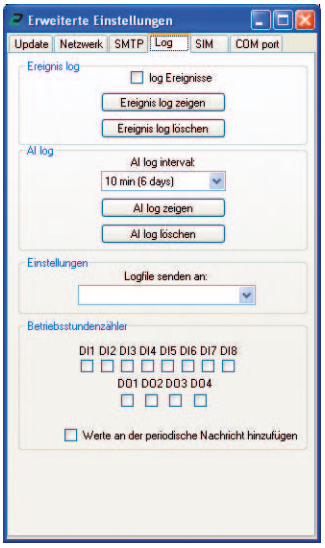
A Automatically: In this mode, the **GSM-PRO** module automatically checks every day at a specified time to see if a new firmware is available. If an update is available, it is automatically downloaded and installed. Once the update has been installed successfully, the **GSM-PRO** module sends an update message to the specified users.

B Manually: The OTA firmware update can be triggered with an SMS that is sent to the **GSM-PRO** module containing a specific code. This setting allows the user to have complete control of whether or when an update will be installed.

Log functionality

Is your process running optimally? What happened last week? How many hours has the machine been running this week?

The **GSM-PRO** module delivers answers to all these questions. The extensive log functionality of the **GSM-PRO** module allows you to log events that have taken place at a facility or a machine over a defined period of time.



Event log
This log function of the module keeps track of a variety of activities and events. The following events are logged:

- The threshold limit on an an analogue input (AI) has been reached
- Rising and falling edges of the digital inputs (DI)
- Incoming messages
- Outgoing messages
- Data transfers
- OTA updates

Logs for the analogue inputs
When analogue signals are being used in a process, the **GSM-PRO** features an AI Log function which allows you to log any process values from the analogue input which have a specified frequency. In this way you can compile a history of the process that can help you later to optimize the process. The logging frequency can be configured in steps from 5 to 60 minutes.

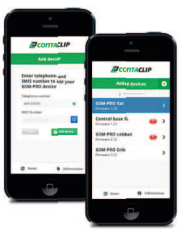
Both log files can be transferred to the PC using a USB cable. Or, using the OTA functions, you can have the log files automatically sent to your e-mail address.

Run-time counter
How many hours has the motor been running? Is the unit due for servicing or maintenance?

The run-time counter for the **GSM-PRO** module's I/Os simplify control. As soon as an input or output is activated, the time is registered and added to a pre-set time interval. The counter value of an input or output can be queried at any time with an SMS. Or the current counter readings can be added to the module's periodic status messages.

Smartphone app

CONTA-CLIP's new iPhone and Android smartphone apps for the **GSM-PRO** modules provide a simple and fast solution so that you can get an overview of each distributed system and application. These apps can show you the status of all inputs and outputs from one or more **GSM-PRO** modules. They also allow you some control over the process. Module outputs can be controlled easily and directly using this app. The app buttons provide an intuitive control interface (for controlling the heating, a motor, water pump, etc.).



The start is easy!
The address book for the **GSM-PRO** modules can be set up easily and quickly. Whether you are using one or multiple **GSM-PRO** modules, all modules names are clearly displayed within the app.

Updates are easy!
Once a **GSM-PRO** module is selected from the list, the current states of the inputs and outputs are displayed. Additional extended values can also be displayed associated with the analogue inputs.

Control is easy!
From the list of available outputs, each output can be individually selected and controlled (with or without a timer function) with just the press of a button.

Saving is easy!
The 30 most recent I/O events will be saved even when the app is not currently running on your smartphone. So the user always stays informed.

Available for free starting in 2013:

ANDROID APP ON Google play

Available on the iPhone App Store

- TS 35 or direct mounting
- Enclosed housing, with width of 88 mm
- Screw connection
- Status LEDs on the **GSM-PRO** module

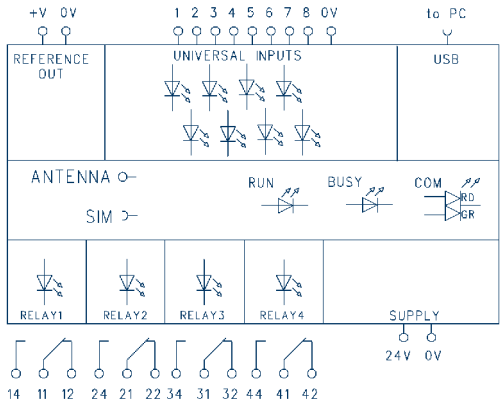
  LED 'Run' displays module activity
  Blinking = starting up
  On = module running
  Off = no power supply

  LED 'Com' displays activity on the GSM network
  Blinking = roaming GSM network
  On = connection with GSM network
  Off = no connection with GSM network

  LED 'Busy' displays activity on the modem
  On = modem is busy

  LED status displays for all inputs and outputs

GSM-PRO



Typ	GSM-PRO	Qty.p.pck.
Cat. no.	**16099.2**	1
Size (L x W x H) with TS 35 x 7.5 without Antenna	88 x 95 x 77 mm	
Weight	275 g	
Input specifications		
8 multi-function analog/digital inputs	0..10 V / 24 V DC (10..30 V DC)	
Resolution / accuracy (0..10 V)	20 mV / ±(20 mV+0,3%*)	
Input resistance (0..10 V)	46 kOhm	
Input current digital inputs (typ.)	@10V: 0,3mA / @24V: 0,8mA / @30V: 1,0mA	
UI minimal pulse length	800 ms (while not transmitting)	
Input threshold digital Inputs	Low < 2V / High > 4V	
Output specifications		
4 relay outputs	4 x CO Kontakt, 250 V ~	
Rated current / Inrush current (ohmic load)	5 A / 5 A	
Max. power rating	1200 VA at 240 V AC, 5 A	
Life span at ohmic load	Electrical: at max. load: > 1,5 x 10^5 cycles. Mechanical: 15 x 10^6 cycles	
Max. switching frequency	6 min^{-1} at rated current, 1200 min^{-1} at no load	
Contact material / test voltage	AgNi / 4 kV	
GSM Data		
Frequency	850/900/1800/1900 MHz	
Sensitivity	–108 dBm @ 850/900 MHz / -107dBm @ 1800/1900 MHz (typical)	
Transmit power	Class 4 (2 W@850/900 MHz), Class 1 (1 W@1800/1900 MHz)	
Antenna	50 Ohm impedance, SMA connector	
General Data		
Module power supply	10..30 V DC	
Module current (max)	275 mA DC @ 24V DC	
Reference from	4,7V ±10% / 20mA	
Backup power	Internal maintenance free supercap capacitor	
Operating / storage temperature	-20°C...+50°C / -20°C...+70°C	
Maximum relative humidity	80%, non-condensing	
DIN-VDE regulations	Low Voltage Directive (LVD) 2006/95/EC, according requirements of EN 50178	
Electromagnetic properties	EMC Directive 2004/108/EC, according requirements of EN 55011 and EN 61326-1	
Frequency spectrum	R&TTE 1999/5/EC according requirements ETSI EN 301-511 V9.0.2	
Connection type	Screw	
Connection cross-section	0,2 - 2,5 mm^2	
Stripping length	6 mm	
Material: Housing / Connecting terminals	Noryl / Polyamid 6.6	
Flammability class per UL94	V0	
Protection class	IP20	
Installation guidelines	Refer to manual	
Accessories		**Qty.p.pck.**
Module Antenna	GSM-Antenna	
Cat.no.	**16101.2**	1
GSM External antenna	GSM-SMA-2,5m	
Cat.no.	**16061.2**	1
USB Programming cable	GSM-USB-cable	
Cat.no.	**16103.2**	1
Portal-Software	GSM-PRO PORTAL **	
Cat.no.	**16155.2**	1

* Of measured reading, ** The portal software can be downloaded at www.conta-clip.de. The software is free for up to two GSM-PRO modules. If you are monitoring more modules, you can order a software key using this order number.

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