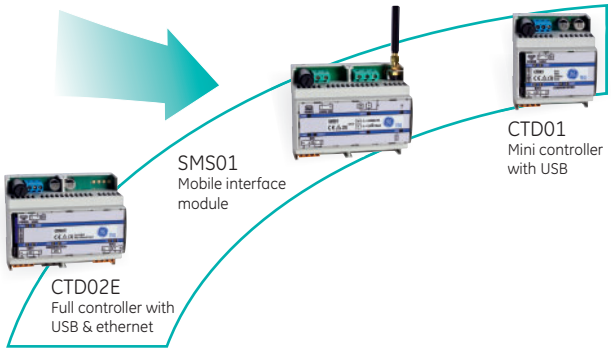
Automation components

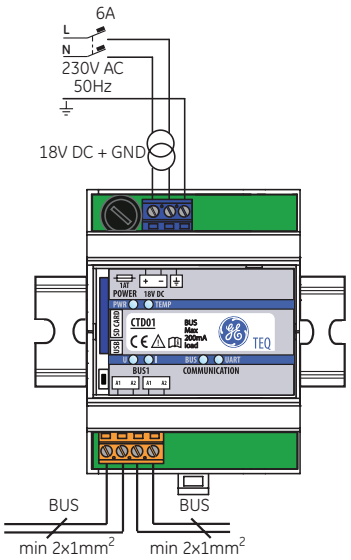
Controllers

The controller is the central brain of the HabiTEQ automation system and delivers the necessary power and data to all the connected modules. The controller is available in 6 different versions to suit your installation size.

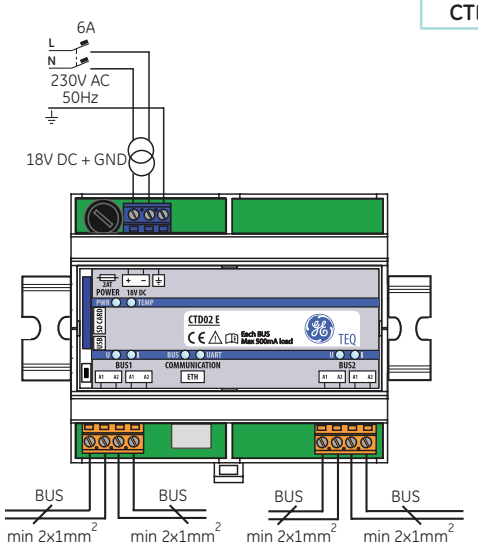
The power supply is delivered via a stabilized 18Vdc/2A lead (included). In case of a loss of the supply voltage a built-in back-up memory will save all data for at least 4 years.



CTD01

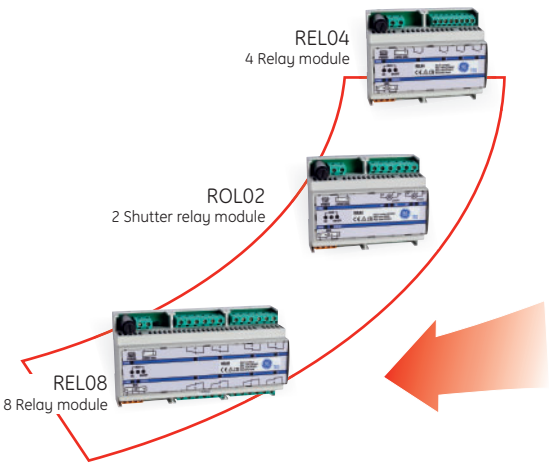


CTD02E



Controller	CTD01	CTD01E	CTD01E+	CTD02	CTD02E
Power supply	18Vdc / 2A (supplied with controller)				
Output BUS (per BUS)	13.8Vdc / 200mA	13.8Vdc / 200mA	13.8Vdc / 400mA	13.8Vdc / 500mA	13.8Vdc / 500mA
Power consumption	4W CTD01 /CTD01E / CTD01E+			6W CTD02 / CTD02E	
Approx. number of modules	12 to 15		30	35 per BUS	35 per BUS
Number of BUS connections	1			2	
Logical functions	Digital logical functions - (AND/OR/ IF.. THEN.. ELSE) ; Analogue logical functions (x, / , + , -, <, >, =)				
Protection - fuse	1 AF				
Fitting	DIN-rail				
Dimensions	4 modules (72mm)			6 modules (107mm)	
Built-in communication	USB	USB & ethernet		USB	USB & ethernet
Sequences or scenes/clock	92 /100				
Back-up memory time	4 years (on board 2GB -SD Card)				

General specifications for DIN-rail automation modules	
Operating temperature	+10 to +50°C without condensation
Storage temperature	-10 to +60°C without condensation
Maximum humidity	93%, without condensation
Protection degree	IP20, EN 60529
Fitting	DIN-rail to DIN EN 50022



Relay modules

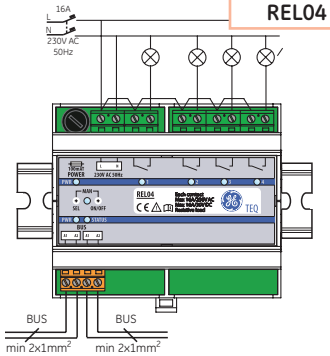
A choice of 3 different relay modules is offered to suit your switching application.

The relay module has 4 or 8 normally open, independently controlled contacts that can switch up to 16A each. The relay module does not have any specific function. It can handle all switching functions: monostable (bell), bistable (on/off), timer, interval, thermostat output, etc.

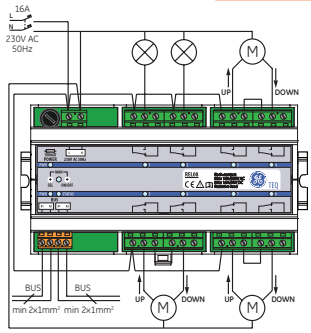
For shutter/blind/curtain control, the shutter module ROL02 must be used. For heavy inductive loads (multiple fluorescent lights) with a high capacity or bipolar applications, contactors need to be added. The relay module contact will then activate the coil of the contactor.

Each of the relay outputs have a unique serial number (e.g REL08) enabling programming anywhere and anytime. All programming remains internally stored in a nonvolatile memory. Following a loss of supply the outputs return to their previous position. A bipolar automatic fuse with a maximum of 16A must be placed on the feeder.

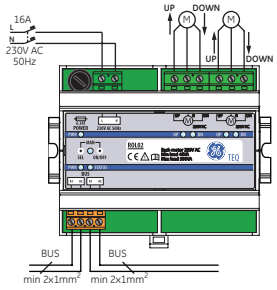
REL04



REL08



ROL02



Relay modules	REL04	REL08	ROL02 (Shutter/Blinds)
Power supply	AC 230V +/- 10%, 50..60Hz - maximum		
Max. protection needed	16A/2P		
BUS load	10mA at nominal 13.8V		
Maximum consumption	9W (all relays ON)	15W (all relays ON)	9W (all relays ON)
Internal fuse	500mA		
Insulation voltage	3kVac (tested)		
Fitting	DIN-rail		
Type	OUT1 – OUT4: 4 potential-free NO single contacts	OUT1 – OUT8: 8 CO contacts	UP1/2 – DN1/2: 4 potential-free NO single contacts
			UP1 – DN1 and UP2 – DN2: internally locked contacts
Rated current	16A (resistive at 230Vac and 30Vdc)		-
Rated load	Resistive load (cos phi = 1) / 16A at 230Vac / 16A at 30Vdc Inductive load (cos phi = 0.4; L/R=7ms) / 8A at 230Vac / 8A at 30Vdc		Minimum load: 40W on 230Vac
Maximum switching power	Resistive load (cos phi = 1) / 3680VA at 230Vac / 480W at 30Vdc Inductive load (cos phi=0.4; L/R = 7ms) / 1840VA at 230Vac / 240W at 30Vdc		Maximum load: 560W on 230Vac
Set/Reset time	15ms max. / 5ms max.		
Endurance	20mil. mechanical operations		
LED indication	Green LED: power supply		
	Red LED: Start-up 2s. and during programming		
	Orange LED: 1-X : Output 1 to x active Orange LED: manual mode		Orange LED:UP, DN: Up1 / Down 1 /Up2 / Down 2 active Orange LED: manual mode
Dimensions	6 modules	9 modules (157mm)	6 modules

Dimmer modules

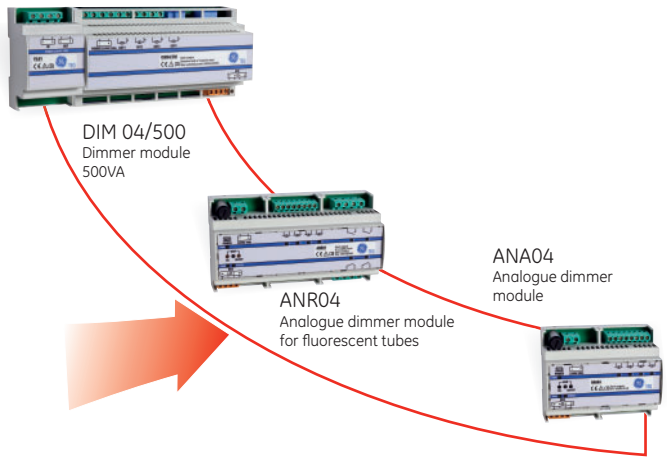
3 different dimmer modules are offered to suit a variety of dimming applications. The modules are controlled and programmable through the bus operating digitally with 8-bit precision. An optical separation between the inputs and outputs guarantees safe operation.

Multiple possibilities for dimmer control

1. One-button dimmer "▽" enables the reduction the number of control buttons.
2. Two-button dimmer: "△" and "▽" button enhancing the operating comfort.

When a button is kept depressed, the transit time from zero to maximum is 5.1s. A short pulse (< 0.3s) will take the dimmer to zero or to the maximum value in 2.5s.

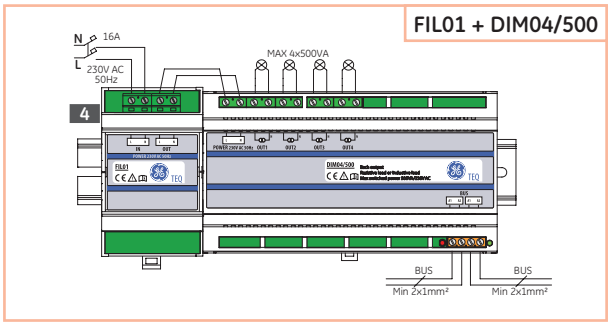
The maximum value can be adjusted from 20 to 100%. The lighting can also be dimmed automatically after a set time of 1s to 255min. Ideal for bedrooms... If the dimmers are controlled by a sequence the rise time and fall time can be adjusted independently between 0.3s and 20min. Each module has a unique serial number enabling programming anywhere and anytime. After a loss of power the outputs return to their latest position.



Dimmer module DIM04/500

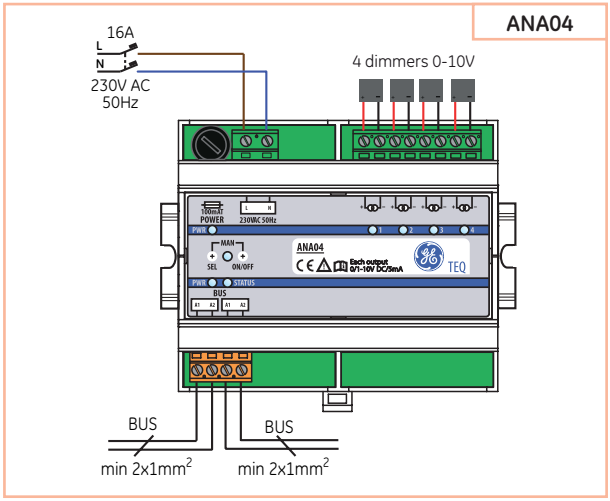
Module for a DIN-rail, suitable for dimming 4 loads of 500VA. The phase offset of each load is measured separately thus allowing the use of resistive (light bulbs) and inductive loads (conventional transformers). Electronic transformers can be used if they operate according to the phase leading principle. On the 500VA dimmer modules, each dimmer output is fused internally with a 4AF fuse. A 2P MCB 16A max. must be placed on the mains power.

Note an additional filter module will be supplied with 500VA dimmers.



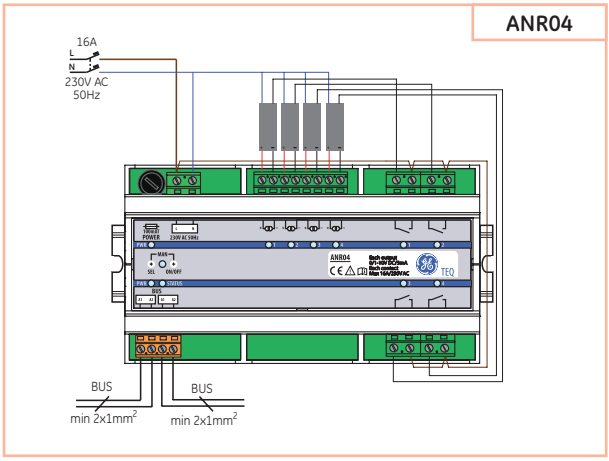
Analogue dimmer ANA04

Suitable for controlling four analog dimmers operating with input voltages of 0-10V. This module can be used for dimming very large capacities. It must be noted that the control voltages must not be connected to the mains. The negative terminals are internally linked. The control and programming are done through the 2-wire BUS, one or two button dimmer control. A 2P MCB 16A max. must be placed on the mains power.



Analogue dimmer ANR04

Each analog output controls a relay contact, which releases when the output is on 0. This contact can disrupt the mains voltage so that the fluorescent lamps go out completely. It must be noted that the control voltages must not be connected to the mains. The negative terminals are internally linked. The control and programming is done through the 2-wire BUS, including the option of using one or two push-buttons for the dimmer control. A 2P MCB 16A max. must be placed on the mains power.



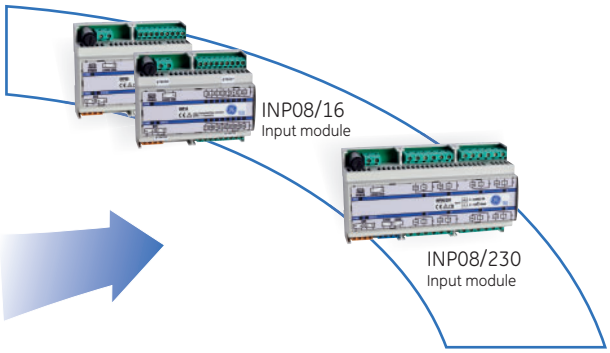
Dimmers	DIM04/500 + Line filter	ANA04	ANR04
	Forward phase dimmer modules	Analogue dimmer modules	
Power supply	230Vac, 50Hz maximum		
Max. protection needed	16A/2P		
BUS load	10mA at 13.8V		
Standard consumption	2.3VA		6VA
Internal fuse	4AF / output	100mAT single phase	
Fitting	DIN-rail		
Insulation voltage	3kV		
Type	OUT1 – OUT4: Dimmable outputs 500VA / channel	OUT1 – OUT4: Analogue outputs 0-10V /channel	
	-		SW1 – SW4: 4 potential-free NO single contacts
Maximum load	Incandescent load 500VA at 230Vac Halogen lamps 500VA at 230Vac	Max. 10mA for analogue output	Max. 10mA for analogue output
Minimum load	30% of maximum output	-	
LED indication	Green LED: power supply		
	Red LED: Start-UP 2s. and during programming	Orange LED - Manual override Orange light 1-4: Output 1 to 4 active	
Rated current	-		16A
Endurance	-		20mil. operations
Rated load	-		Resistive load (cos phi = 1) 16A at 230Vac 16A at 30Vdc
			Inductive load (cos phi = 0.4; L/R=7ms) 8A at 230Vac 8A at 30Vdc
Maximum switching power	-		Resistive load (cos phi=1) 3680VA at 230Vac 480W at 30Vdc
			Inductive load (cos phi=0.4; L/R=7ms) 1840VA at 230Vac 240W at 30Vdc
Dimensions	9 modules + 3 modules for filter	6 modules	9 modules

Input modules

3 different input modules are available in the HabiTEQ to connect external contacts such as solar/wind detector, movement detector, door switches, push-buttons and analogue sensors. 8/16 optical isolated inputs are provided, which must be potential-free.

The input contacts can be selected and set using the PC software:

- Push-button = button that is open when inactive (e.g. doorbell)
- Normal open = contact that is open when inactive
- Normal closed = contact that is closed when inactive
- Switch = single-pole conventional switch. The maximum length of each input is 200m. The cable type is irrelevant as long as the 2 wires are each 1mm². (Contact load 1mA) Each of the 8 inputs has two serial numbers. The common (first connector on the right top and bottom) is connected internally. One may connect these together with other INP16 modules.



Always use potential-free contacts! Never connect or disconnect modules while the bus is energized!

INP08/230

There are 8 optically insulated inputs.
Each input needs a voltage to be active.
This can be:

- 12Vac/dc if connected between B and C (consumption approximately 10mA)
- 230Vac if connected between A and C (consumption approximately 1W)
- Orange LED lights positioned near inputs 1-8 indicate if input is active.

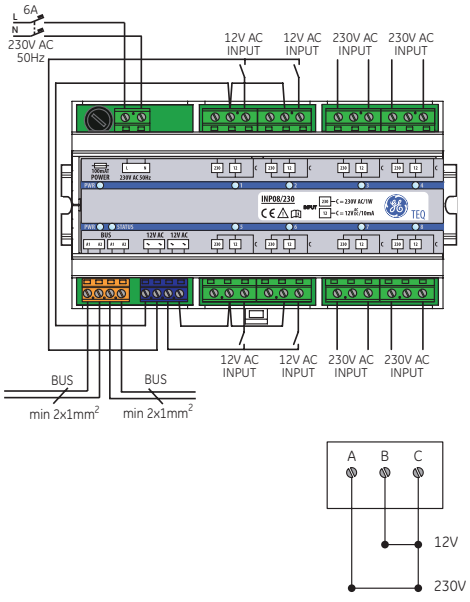
If there are inputs with potential-free contacts they can be connected to the module via 12Vac. The required voltage is provided on the top and bottom sides of the module.

INP08/INP16

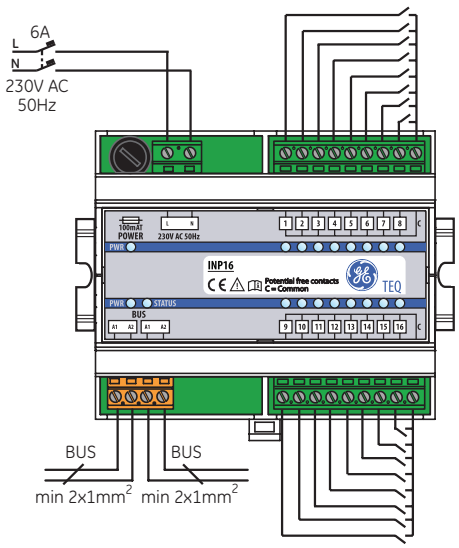
There are 8 or 16 optically insulated inputs.
Each input needs a voltage to be active.
This can be 12Vac/dc if connected between B and C (consumption approximately 10mA)

If there are inputs with potential-free contacts they can be connected to the module via 12Vac. The required voltage is provided on the top and bottom sides of the module.

INP08/230

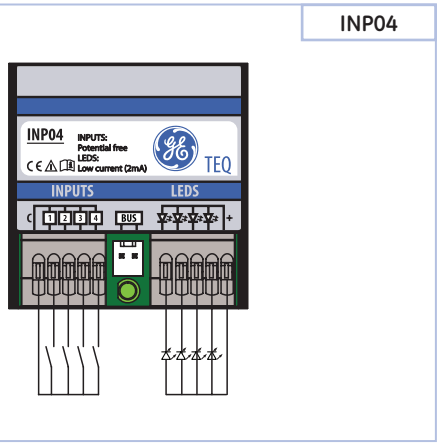


INP16



INP02/04

This module can be used to interface with any conventional switch to the BUS. The size of the module permits installation within the switch flush mounted box.



INP04

Product description

Module for connecting external contacts such as regular switches and push-buttons, solar/wind detector, motion detector, smoke detectors, ...

On the INP02/04, 2/4 potential free contacts and 2/4 low-current LEDs (2mA without serial resistor) can be connected. The maximum length of the conductor between the INP02/04 and the potential free input is 20 meters.

The cable type or its section is irrelevant.

An INP02/04 can control 2/4 outputs, 2/4 scenes or 2/4 x 16 scenes (via the sequence function).

The two/four low-current LEDs that can be connected to INP02/04 show the status of the mode that has been selected (push-button, normal open, normal close, switch).

The INP02/04 is connected on the bus, and gets its power from the BUS.

Digital Input modules	INP02[1]	INP04	INP08	INP16	INP08/230
Power supply	BUS powered		230Vac/50..60Hz		
BUS load	10mA at 13.8V				20mA at 13.8V
Standard consumption	-		2.65VA		9.2VA
Insulation voltage	-		3kV		
Fitting	Typically inside conventional switch box in the wall or surface mount with double side stick tape.		DIN-rail		
Number of inputs	2 potential-free	4 potential-free	8 potential-free	16 potential-free	8 potential-free (optically separated 12Vac/dc or 230Vac selectable by connection)
Input function (configurable through system software manager)	Push-button = button that is open when inactive (e.g. doorbell). Normal open = contact that is open when inactive. Normal closed = contact that is closed when inactive. Switch = single-pole conventional switch.				
LED indication	Green LED: power supply External LEDS can be connected to indicate status of each Input if needed.		Green LED: power supply		
			Red LED : Start-up 2s. and during programming		
			Orange LEDS 1 - 8: when the contact is connected (closed)	Orange LEDS 1 - 16: when the contact is connected (closed)	Orange LEDS 1 - 8: when the contact is active
Dimensions	HxWxD = 12x40x41mm		6 modules		9 modules

(1) on request

Communication interfaces

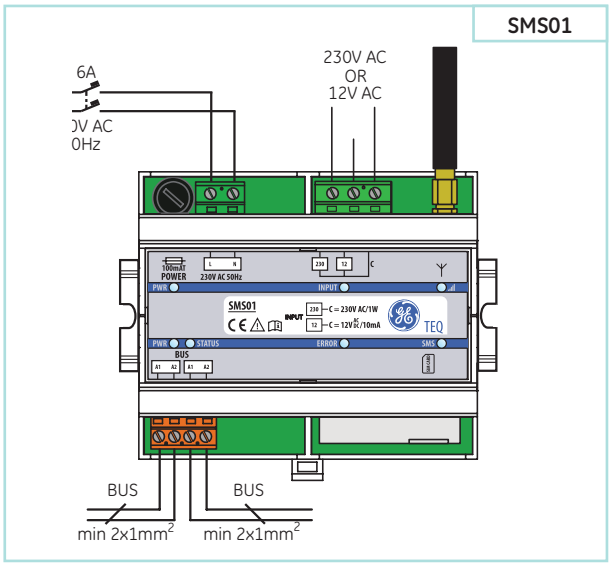
Communication can be established through the PC via an ethernet connection or through a serial USB interface. Further control of HabiTEQ system can also be achieved through a mobile phone using basic pre-configured SMS messages.

Ethernet/WEB interface

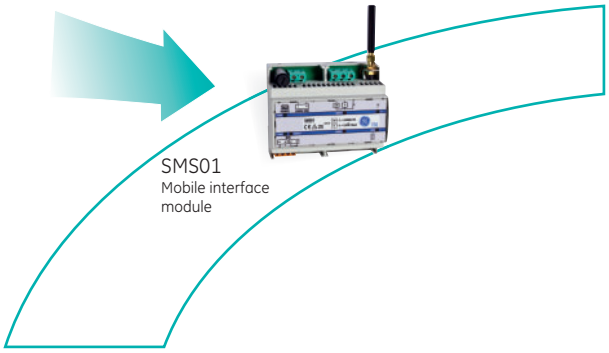
Incorporated into the controller. (see p. 24)

Serial interface - USB

The serial interface allows the HabiTEQ system to communicate with a PC or a modem. The "HabiTEQ System Manager" software (supplied free of charge) allows programming and operation of the installation.



Note: Pincodes can not be enabled or disabled when the SIM card is in the module. Pincode authentication of the SIM card can only be achieved with a mobile phone before placing it back in the module.



Mobile interface module

The SMS01 is a DIN mounted module that can be installed within the HabiTEQ system. The power supply is 230Vac. If the module must work when power drops, a UPS or internal rechargeable battery (Li-Ion) will be required. An additional connection (230V or 12V) is available to send a SMS message when the power drops.
The SIM card must be inserted into the SIM card reader located at the bottom of the module. If the module is mounted in a metal distribution box or on a place with bad network coverage (cellar, concrete....) it is recommended to add an optional antenna.

Features:

- Maximum 8 phone numbers can get access to the system
- View and control outputs: max 96 channels (sequences included) can be activated
  - Confirmation to selectable numbers
  - Compares SMS texts with predefined texts e.g. "KITCHEN ON" or "KTC ON"
  - Different value definitions (e.g. ON - OFF - 0 - 1 - 50%...)
- Alarm messages:
  - Maximum 16 different alarm messages (e.g. burglar alarm, fire, power down etc.) can be sent to up to 8 phone numbers with intervals selectable from 1min up to 255min. and repeat rate 1-31 for each SMS can be set.
  - Stop sending alarm texts when "SMS - STOP" message is received.
  - "Power Loss" warning to all numbers

Mobile Interface	SMS01
	SMS MODULE
Power supply	230Vac, 50..60Hz - maximum
Power guard connection	Power guard inputs: Connection I1 – C : 230Vac – max 1VA Connection I2 – C : 12Vac – max 1VA
BUS load	15mA at 13.8Vdc
Characteristic consumption	5VA
Internal fuse	100mA
Insulation voltage	3kV
Control	Up to 96 outputs (including sequences) can be activated or viewed
Access	Max. 8 phone numbers can get access to the system
Control possibilities	SMS texts can have different defined texts for different users and different status definition
Alarm messages	Max. 16 alarm messages can be sent to all numbers Warning power down to all numbers if battery is connected
SIM card	Not included
Antenna	Built-in antenna on top and optional external antenna
Band width	Tri-band
Dimensions	6 modules