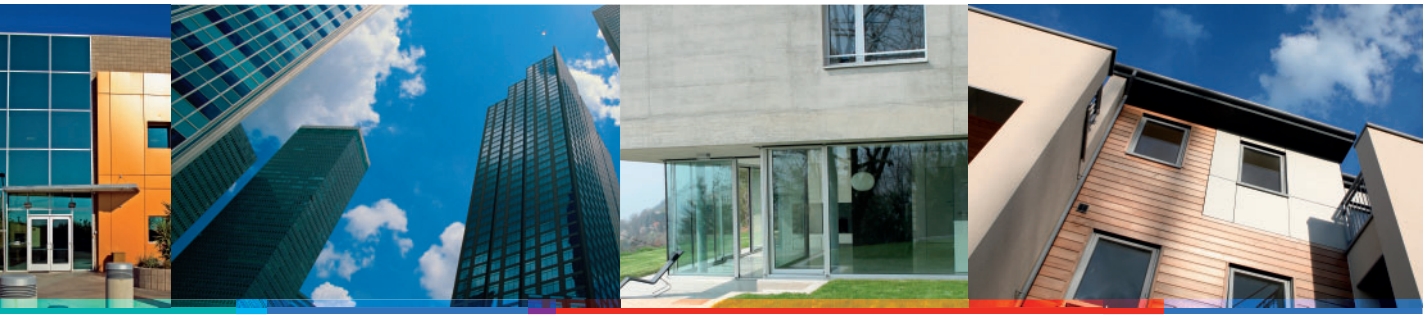
GE Energy
Industrial Solutions

WORLDWIDE PARTNER

HabiTEQ™

ED.02

Home & Building Automation



- Energy efficiency
- Outstanding comfort
- Enhanced safety

GE imagination at work

Contents

HabiTEQ™ - Home & Building Automation

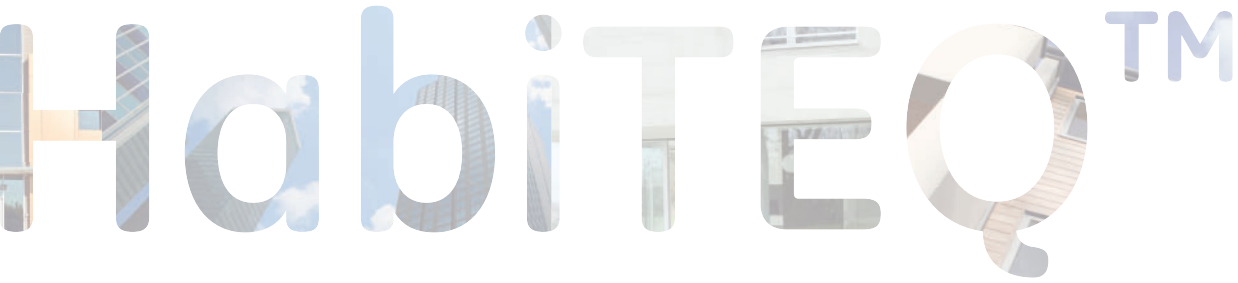
Introduction
2 Advantages
8 Home solution
10 Building solution
12 System architecture
14 System topologies

Automation solutions
16 Pre-wired distribution boards
20 Range of enclosures

Automation components
24 Controllers
26 Dimmer modules
28 Input modules
30 Communication interfaces

Order codes
31 System controllers
32 Universal load actuators
33 Input modules
34 Dimmers
35 Communication interfaces
36 System visualization
37 Smart switches
42 Sensors

48 Range of modular devices
49 Numerical index



Development of innovative technology impacts our daily lives offering a wealth of new possibilities which includes our very own home or working space.

This is particularly true for the electrical installation – the heart of every building. This area holds great potential for designing properties with greater flexibility, energy saving and outstanding comfort without compromising lifestyle.

The **HabiTEQ™** automation solutions and components are tailored for your building - offering a platform of opportunities to achieve a versatile system satisfying the most demanding customers needs.

HabiTEQ™ components

Offer a single and simple integrated system instead of separate control solutions...

In comparison with classic electrical installations, the HabiTEQ™ intelligent building control system offers noticeable advantages.
All the different functional subsystems within your living space are seamlessly integrated via a 2–wire BUS to a single communicating system, controlled by a powerful central controller. This enables the optimal, energy efficient interaction of the subsystems, which is almost impossible with conventional technology.
The system allows a large number of interactive functions to be realised, including:

| Lighting control | Heating/ventilation control | Climate control | Shutter control | Safety monitoring | Energy management | Central automation |

HabiTEQ™ solutions

Intelligent "plug and play" distribution boards, designed for easy installation and time saving.

GE offers two standard pre-equipped and pre-wired distribution boards – one for apartments (Fix-o-Rail 150) an one for houses (QuiXtra 630). These standard solutions are and flexible and adaptable. The installation can be extended with components in- and outside the panel. Inside there is a significant reserve for DIN-rail modules. Outside the system can be extended with HabiTEQ wireless modules. The communication between the two media (wired and wireless) is bi-directional.

Customer benefits

- Significant time saving
- Available on stock
- 100% tested solution
- Easy extension
- Sharp prices

HabiTEQ™ Flexible solution fo electrical installati

Seamlessly integrating safety, security, lighting, climate, automation of mechanical loads such as shutters and blinds, and many more!
HabiTEQ™ provides comfort, control and convenience through multiple stylish user interfaces (touch screen, switches, etc.)

comfort

convenience

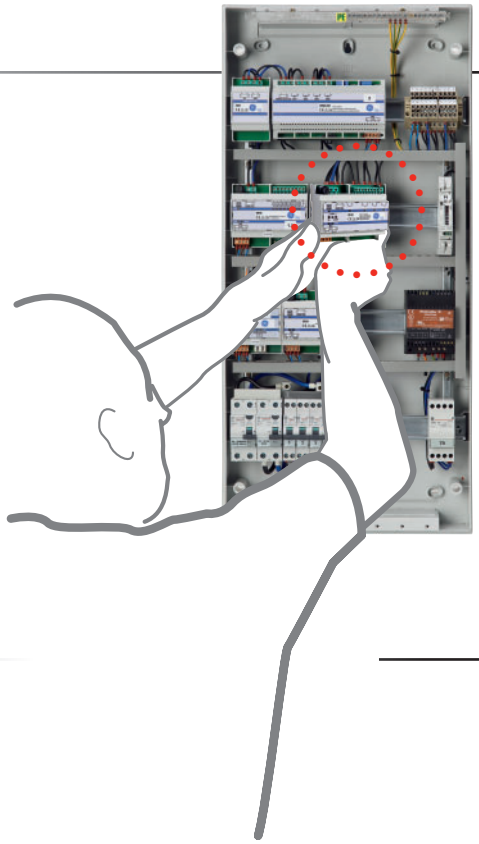
or smart & simple ons!

Easy to install and customize. Using a PC through a choice of serial or ethernet link adds tangible value to installers of commercial buildings and home owners whatever the property: apartments, family homes, villas, etc.

security

building

Easy to install



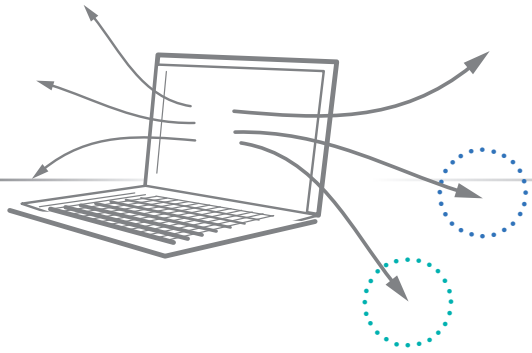
Modular building blocks, easily scalable!

- Fast 2-wire BUS system with no polarity, no restrictions on topology
- Quick and easy system configuration
- Fast and simple installation

Value for money

Track and control energy usage with a simple pulse meter

- Flexible functionality – easily enhance and adapt with limited or no additional hardware
- Up to 50% cost saving on system installation & setup(1)



(1) Compared to other popular distributed systems.

Flexibility

Visualize and control through the internet via a PC or mobile phone with no additional hardware(1)

- Integrate third party infrared (IR) remote control
- Make any switch intelligent
- Easy to configure
- User friendly

Integration with larger systems through the ethernet(2) for buildings

Remote access
Multiple clients

Redundancy
Manual override on field modules

Open Standards

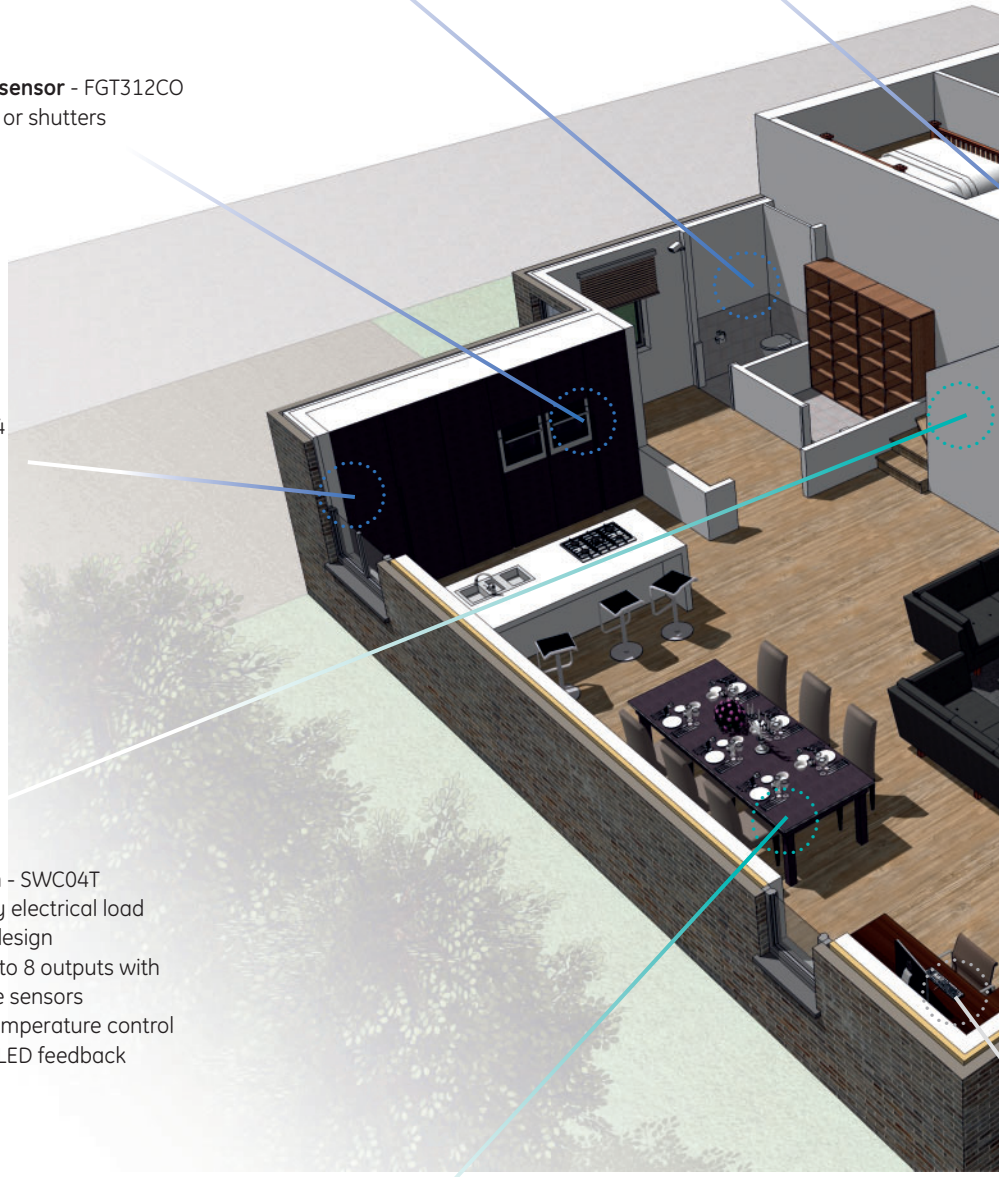
(1) Controller with ethernet port.
(2) Using the event handler protocol, supplied on request.

Home solution

Motion sensor - PIR
EV100 (indoor) DI502 (outdoor)
- Sensor with high immunity to false motion
- For automatic lighting and heating

Smoke sensor - DP721R
Smoke sensor pre-warning

Carbon monoxide sensor - FGT312CO
- Opens ventilation or shutters



Gas sensor - FGELPG24
- Opens the shutters

Smart switch - SWC04T
- Controls any electrical load
- With Niko® design
- Controls up to 8 outputs with temperature sensors
- Multizone temperature control
- Multicolour LED feedback

Interface module - SMS01
- Any mobile phone
- Controls any electrical load with text

LCD control panel - THI01
- Up to 96 outputs
- IR receiver
- Temperature sensors built-in with thermostat function

Relay module - REL04/08
- Contactor
- Controls any load linked to a clock or for a preset time

Touch panel - TSC5.8
- Monochrome touch panel
- Simple interface
- With temperature sensor

IP camera
- Security
- See who is at the door

Input module - INP08/16
- Any external sensor with the INP module (INP = wind detector)
- Automatically opens or closes a canopy as a result of wind speed

Dimmer - DIM04/500
- Set the mood, relax and enjoy

Touch panel-PC - TCPC/NAV10.2
- Central home control with energy visualization

Input module - INP04 / INP02
- Can be integrated in any switch

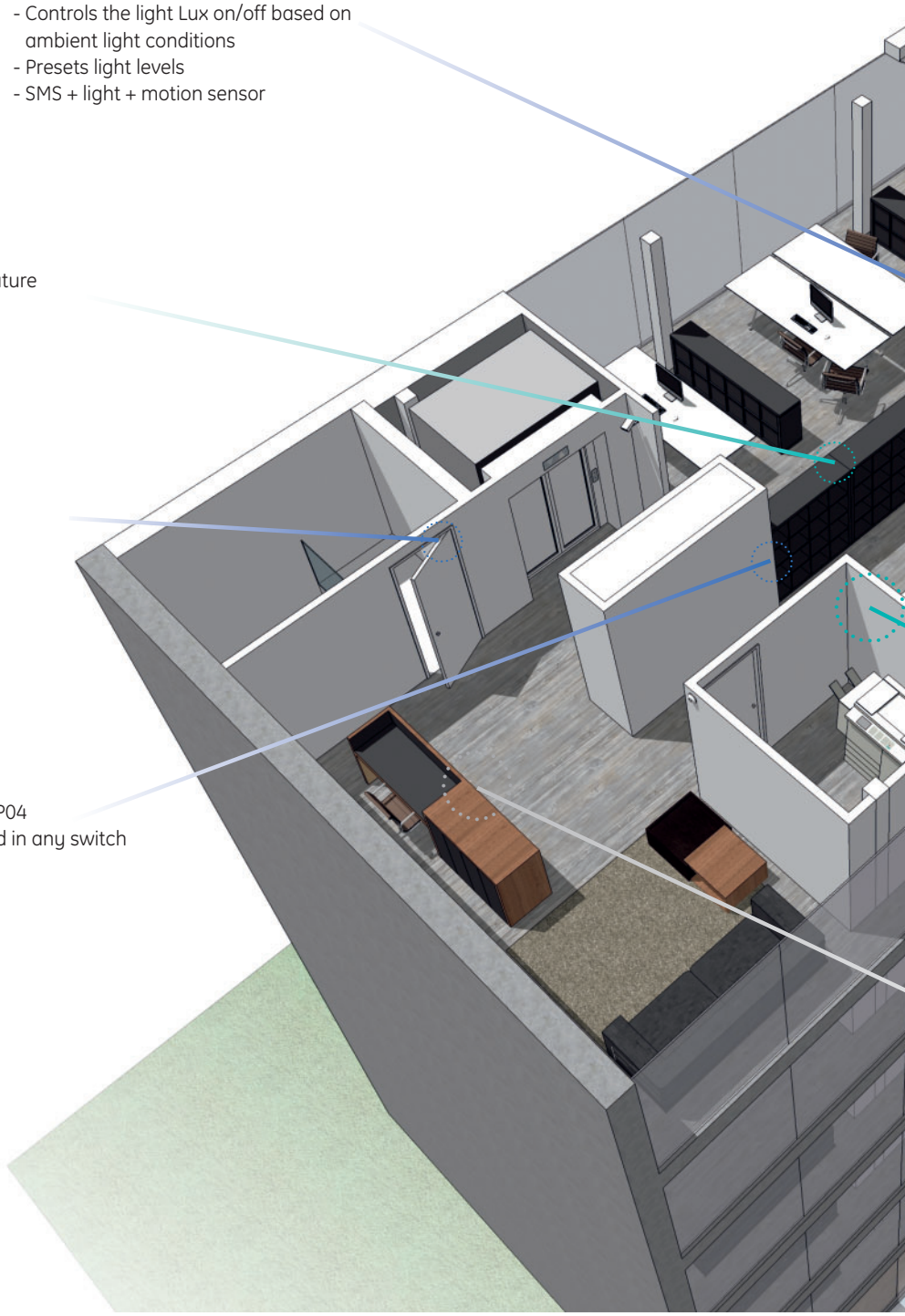
Building solution

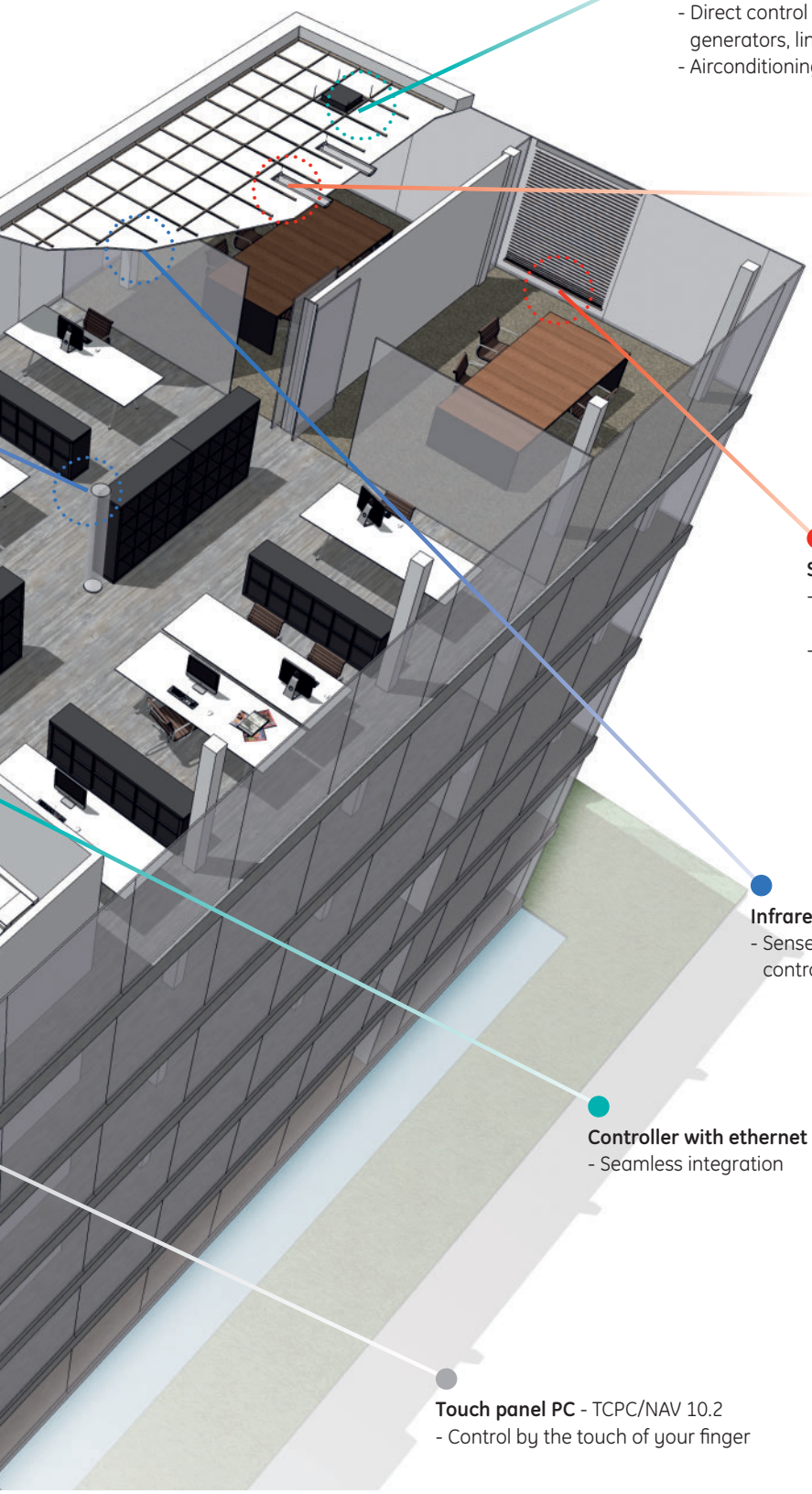
Light sensor - MDI01
- Controls the light Lux on/off based on ambient light conditions
- Presets light levels
- SMS + light + motion sensor

Room controller - THI01
- To control zone temperature

Door contact - DC101
- Energy saving: heating shuts down if the window opens

Input module - INP04
- Can be integrated in any switch





Infrared generator - IRG04
- Direct control of airconditioning with infrared generators, linked to presence of open windows
- Airconditioning goes to standby if a window opens

Dimmer - ANR04
- Dimming of fluorescent lamps
- Reduces light levels to the perfect amount of light in combination with the light sensor

Shutter up / down - ROL02
- Shutters / blinds... positioned perfectly
- Stand alone or linked to a smart sensor light

Infrared sensor - EV669 / DD669
- Senses 360° motion and controls lights and heating

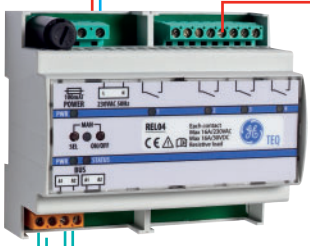
Controller with ethernet - CTD
- Seamless integration

Touch panel PC - TCPC/NAV 10.2
- Control by the touch of your finger

Relays / Load control

Controllers

230Vac/50Hz



REL04
4 relay module
ROL02
REL08

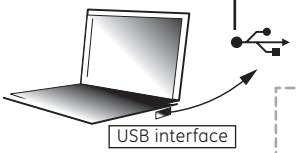
CTD01
CTD01E
CTD01E+
CTD02
CTD02E
Controller with USB and ethernet

2-wire communication BUS

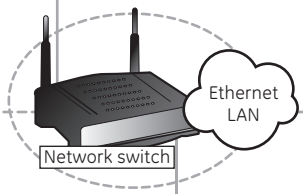
Lamp

Heater

Shutter



USB interface



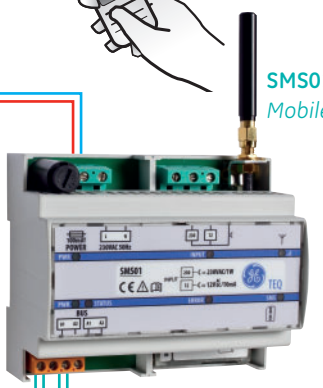
Ethernet LAN

Network switch

WEB - interface

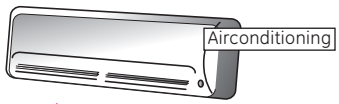
Residential WIFI camera

GE Home center



SMS01
Mobile interface module

Audio/video system



Airconditioning

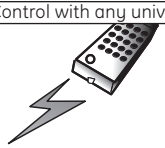
Infrared generator

IRG04

Motion & light sensor

MDI01

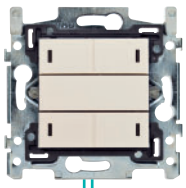
Control with any universal remote (IR)

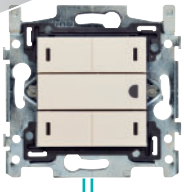


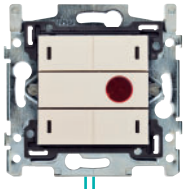
Smart switch

with thermostat

with IR receiver







Monochrome touch screen

2 line display with IR/ temperature sensor

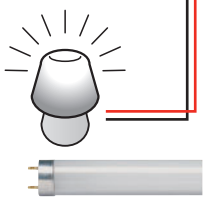
External power supply

Lighting control

Input modules

0 to 10Vdc

DIM500
ANA04
Analogue dimmer module
ANR04

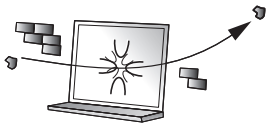


INP08
INP16
Input module
INP08/230
INP02
INP04

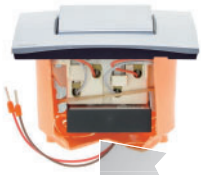
Door / window contact

CO Detector

Glass break sensor

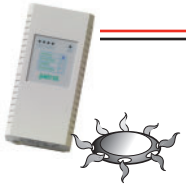


Switch interface



Energy meter

Gas detector

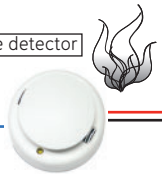


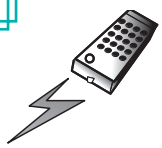
CO_2 sensor

AIR01CHT
AIR01CT

INP04
Input module

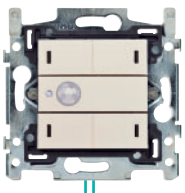
Smoke detector



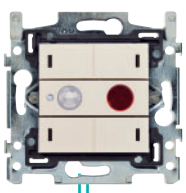


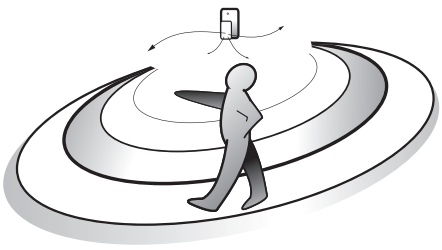
Motion detector

with motion sensor



with motion sensor and IR receiver

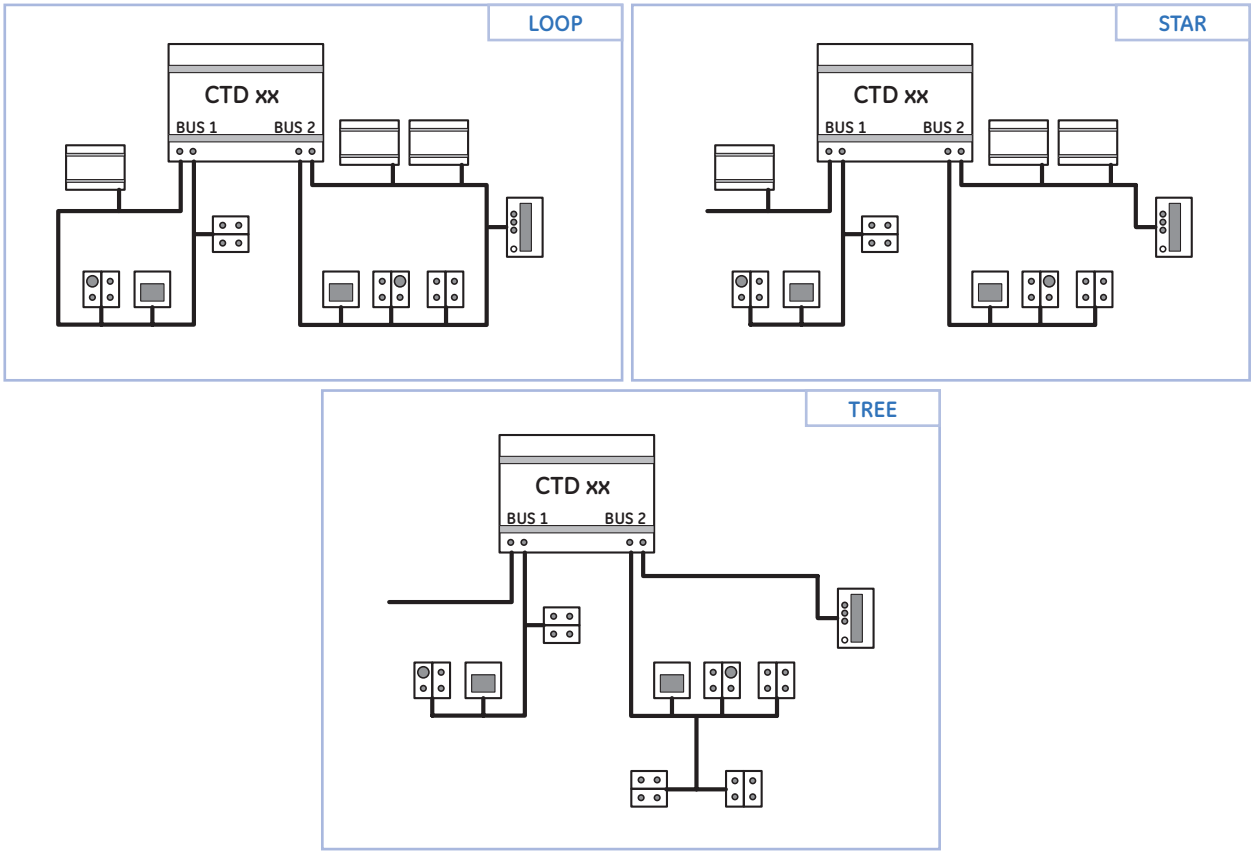




9 to 24Vdc

System topologies

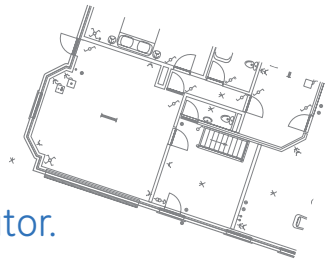
Flexible BUS topology... star, loop, tree or any combination with no polarity... enables quick and easy installation



System overview

- 2-wire bi-directional BUS communication.
- BUS supplies power to the I/O module and has no polarity
- I/O reaction speed: 400 outlets = 0.3 sec
- Simultaneous communication
- Current based BUS principle = high resistance against external influences
- Cable: shielded twisted pair section 2 x 1.0 mm^2
  Distance max. 200m (open), max. 400 m (closed)

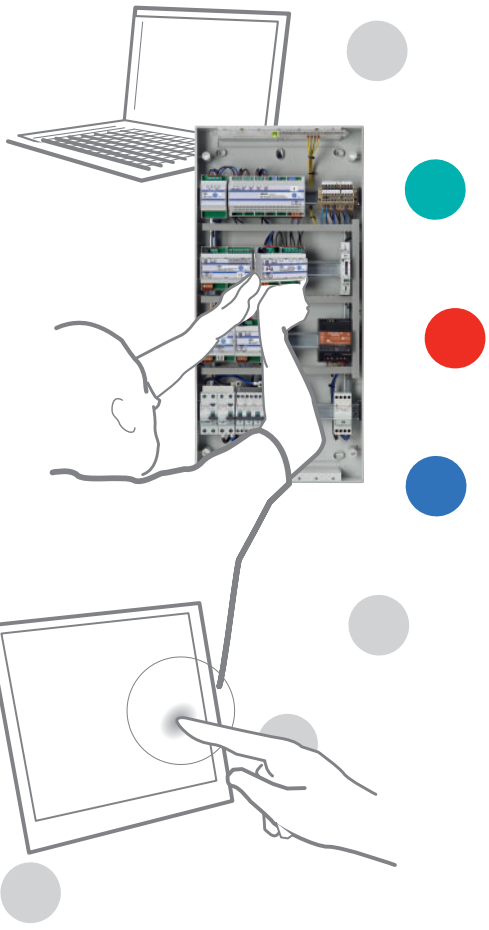
Your home or building automation solution... is just six steps away



1 Enter installation details on floor plan.

2 Transfer installation details to the configurator.

3 Output of parts list and HabiTEQ™ distribution board.



4 Place the order for your HabiTEQ™ distribution board & other accessories (switches, touchscreen etc..)

5 Install & connect

6 Configure & startup

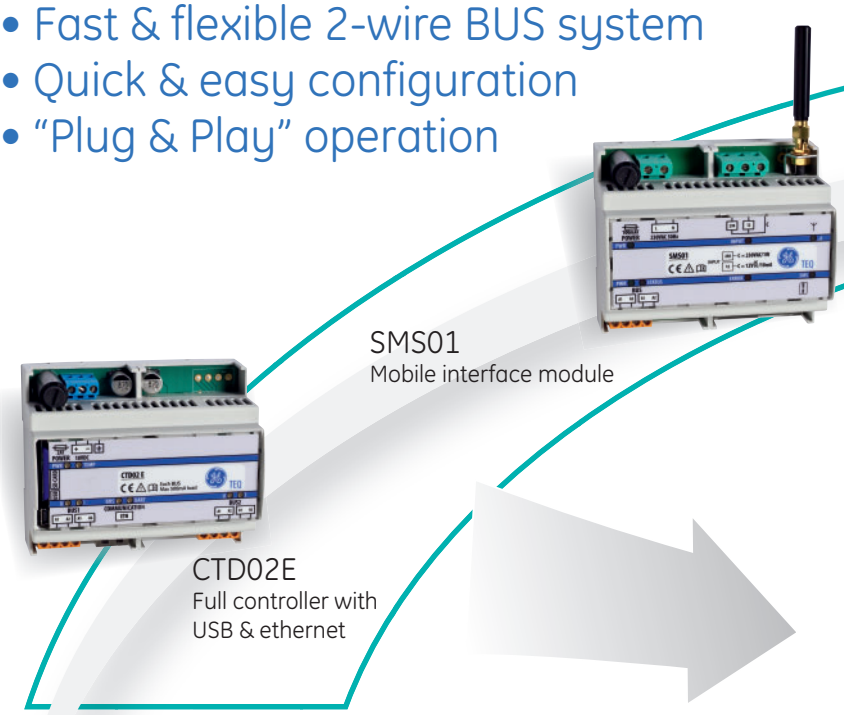
Simple installation – Can be done by your local electrician

- Quick & easy system setup through PC
- "HabiTEQ™ System Manager" free software. For online support go to the homepage of our website and click on Portfolio Residential. www.ge.com/ex/industrialsolutions

Pre-wired distribution board

Automation components

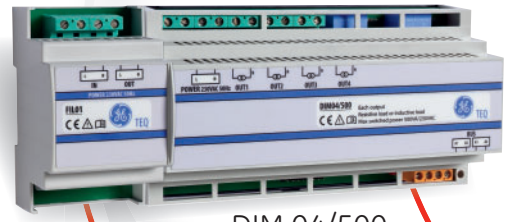
- Fast & flexible 2-wire BUS system
- Quick & easy configuration
- "Plug & Play" operation



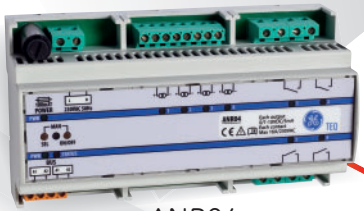
CTD01
Mini controller with USB

SMS01
Mobile interface module

CTD02E
Full controller with
USB & ethernet

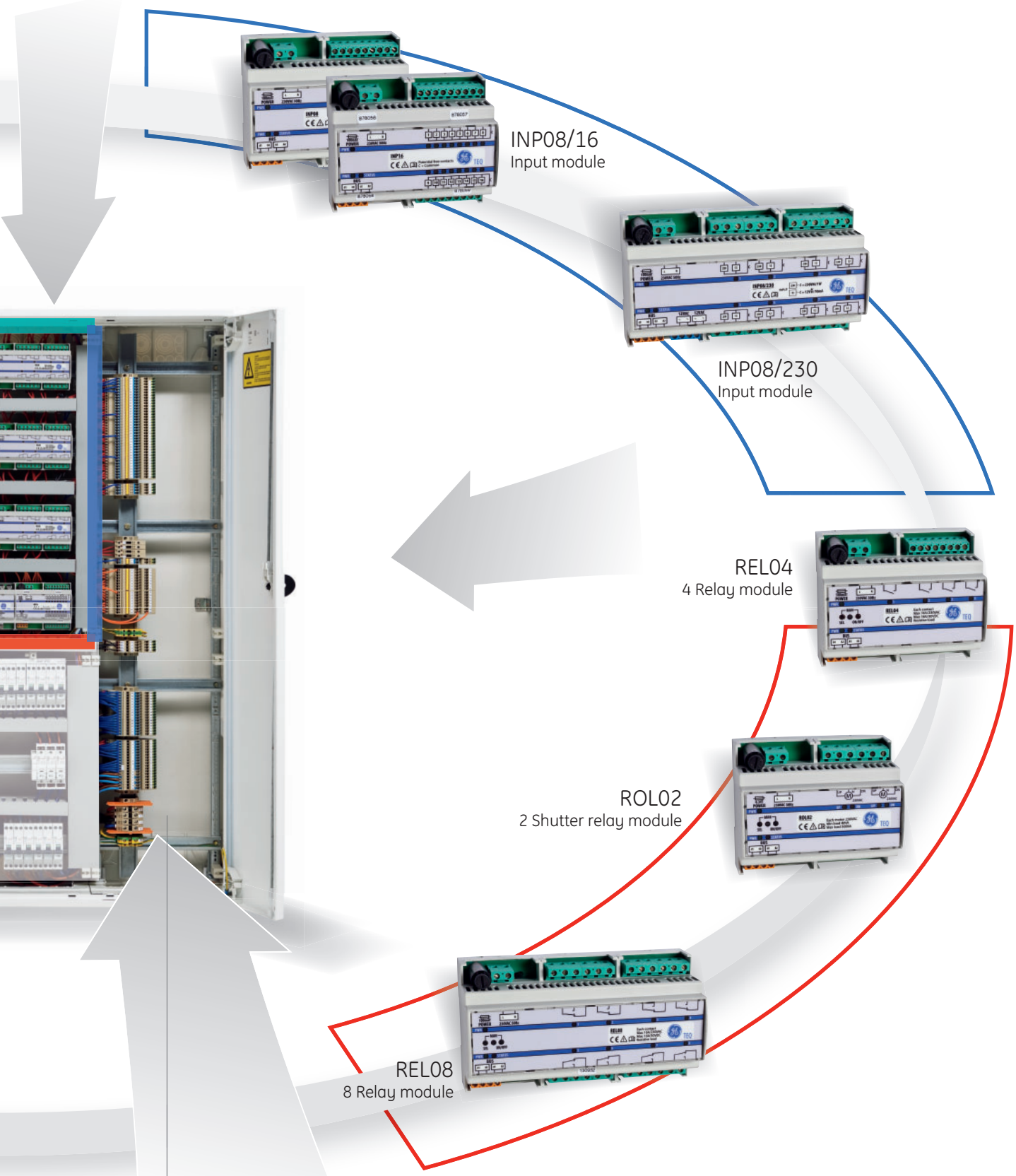


DIM 04/500
Dimmer module
500VA



ANR04
Analogue dimmer module
for fluorescent tubes
0-10V

ANA04
Analogue dimmer module
0-10V



Separate cable compartment (enclosure types C-D-E-F)
Enclosure shown is type C7 (see page 22)

Pre-wired distribution board

Protection devices

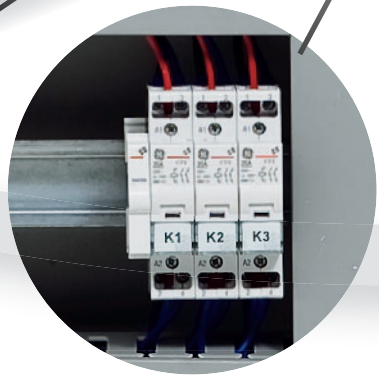
- Quick & easy installation
- Circuit and people protection

MCB's for
line protection

RCD's for people protection

Surge protection

Overvoltage
protection



Contactors for
controlled socket-outlets

Controlled outputs

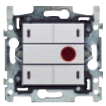
M Motor

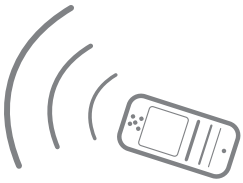
R Relay

D Dimmer

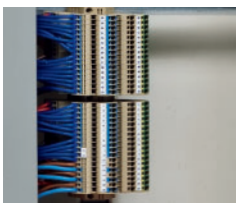
Potential free and 230Vac binary inputs
Connections from push-buttons, magnetic contacts and external detectors to input module.

BUS connection





Screwless terminals
for quick connection



Conventional cabled and controlled socket-outlets

Customized distribution boards
One enclosure for each requirement

Type A
Fix-o-Rail 150
Surface Mounting

Rows	Type A	Code	H x W x D	Mod/ Row	Total Mod
4	FOR 150	**A4**	750x355x150	18	72

• Customized:
- equipped with modular devices
- external wiring direct onto input modules
- cables from socket circuits directly into MCB's
- wiring of controlled outputs on terminals
- single phase 40A incomer

Type B-F
Fix-o-Rail 144 F
Flush Mounting

Picture shown B6F

Rows	Type B-F	Code	H x W x D	Mod/ Row	Total Mod
4	FOR 144F	**B4F**	800x740x(35)140	24	96
5	FOR 144F	**B5F**	950x740x(35)140	24	120
6	FOR 144F	**B6F**	1100x740x(35)140	24	144

• Customized:
- equipped with modular devices
- external wiring direct onto input modules
- cables from socket circuits directly into MCB's
- wiring of controlled outputs on terminals

Type B-S
Fix-o-Rail 144 S
Surface Mounting

Picture shown B6S

Rows	Type B-S	Code	H x W x D	Mod/ Row	Total Mod
4	FOR 144S	**B4S**	800x740x140	24	96
5	FOR 144S	**B5S**	950x740x140	24	120
6	FOR 144S	**B6S**	1100x740x140	24	144

• Customized:
- equipped with modular devices
- external wiring direct onto input modules
- cables from socket circuits directly into MCB's
- wiring of controlled outputs on terminals

Type B
VP-SYSTEM MV/MS
MW= Wall Mounting
MS= Floor Standing

Picture shown B8

Rows	Type B	Code	H x W x D	Mod/ Row	Total Mod
4	VP MW	**B4**	650x550x210	24	96
5	VP MW	**B5**	800x550x210	24	120
6	VP MW	**B6**	950x550x210	24	144
7	VP MW	**B7**	1100x550x210	22	154
8	VP MW	**B8**	1250x550x210	22	176
9	VP MW	**B9**	1400x550x210	22	198
12	VP MS	**BS12**	1980x550x210	20	240

• Customized:
- equipped with modular devices
- external wiring direct onto input modules
- cables from socket circuits into terminals
- wiring of controlled outputs on terminals

Customized distribution boards
One enclosure for each requirement

Type C
VP-SYSTEM MW/MS
MW= Wall Mounting
MS= Floor Standing

Picture shown C7

Type D
VP-SYSTEM MW/MS

Picture shown D9

Rows	Type C	Code	H x W x D	Mod/ Row	Total Mod
5	VP MW	**C5**	800x800x210	22	110
6	VP MW	**C6**	950x800x210	22	132
7	VP MW	**C7**	1100x800x210	22	154
8	VP MW	**C8**	1250x800x210	22	176
9	VP MW	**C9**	1400x800x210	22	198
12	VP MS	**CS12**	1980x800x210	22	264

Rows	Type D	Code	H x W x D	Mod/ Row	Total Mod
5	VP MW	**D5**	800x1050x210	34	170
6	VP MW	**D6**	950x1050x210	34	204
7	VP MW	**D7**	1100x1050x210	34	238
8	VP MW	**D8**	1250x1050x210	34	272
9	VP MW	**D9**	1400x1050x210	34	306
12	VP MS	**DS12**	1980x1050x210	34	408

• Customized:
- equipped with modular devices
- separate cable compartment (in- and outgoing cables)
- cables from socket circuits onto terminals
- wiring of controlled outputs into terminals
- wiring of inputs on terminals

• Customized:
- equipped with modular devices
- separate cable compartment (in- and outgoing cables)
- cables from socket circuits onto terminals
- wiring of controlled outputs into terminals
- wiring of inputs on terminals

Type E
VP-SYSTEM MW

Picture shown E8

Type F
QuiXtra™ 630

Picture shown FS12

Rows	Type E	Code	H x W x D	Mod/ Row	Total Mod
5	VP MW	**E5**	800x1300x210	38	190
6	VP MW	**E6**	950x1300x210	38	228
7	VP MW	**E7**	1250x1300x210	38	266
8	VP MW	**E8**	1400x1300x210	38	304
9	VP MW	**E9**	1980x1300x210	38	342

• Customized:
- equipped with modular devices
- separate cable compartment (in- and outgoing cables)
- cables from socket circuits onto terminals
- wiring of controlled outputs into terminals
- wiring of inputs on terminals

Rows	Type F	Code	H x W x D	Mod/ Row	Total Mod
5	QuiXtra 630	**F5**	900x1240x250	36	180
6	QuiXtra 630	**F6**	1050x1240x250	36	216
7	QuiXtra 630	**F7**	1200x1240x250	36	252
8	QuiXtra 630	**F8**	1350x1240x250	36	288
9	QuiXtra 630	**FS9**	1600x1240x250	36	324
10	QuiXtra 630	**FS10**	1750x1240x250	36	360
12	QuiXtra 630	**FS12**	2050x1240x250	36	432

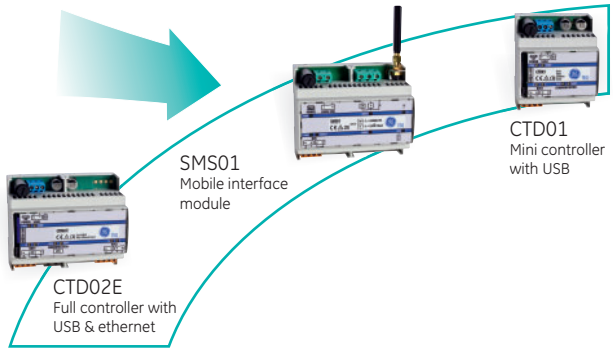
• Customized:
- equipped modular devices
- separate cable compartment (in- and outgoing cables)
- main compartment with transparent door
- cables from socket circuits onto terminals
- wiring of controlled outputs into terminals
- wiring of inputs on terminals
• Optional: main compartment with plain door

Automation components

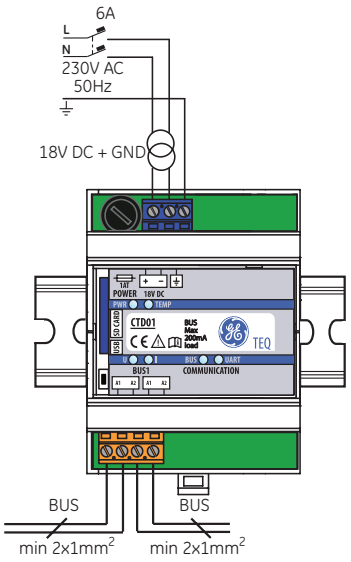
Controllers

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.

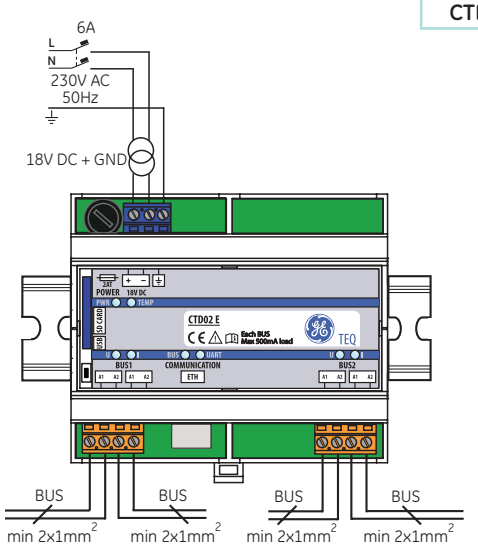
The power supply is delivered via a stabilized 18Vdc/2A lead (included). In case of a loss of the supply voltage a built-in back-up memory will save all data for at least 4 years.



CTD01

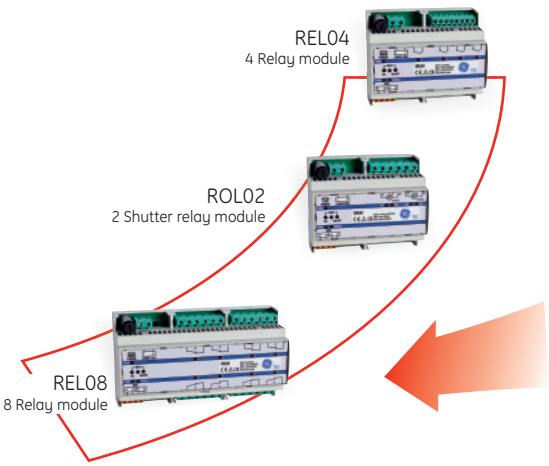


CTD02E



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

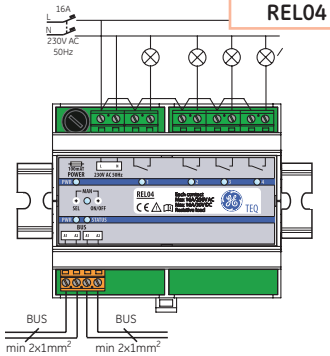
A choice of 3 different relay modules is offered to suit your switching application.

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.

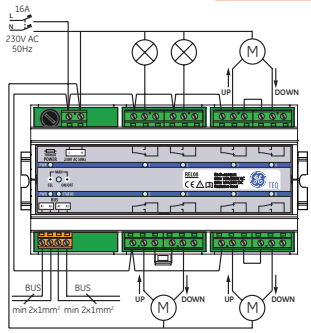
For shutter/blind/curtain control, the shutter module ROL02 must be used. For heavy inductive loads (multiple fluorescent lights) with a high capacity or bipolar applications, contactors need to be added. The relay module contact will then activate the coil of the contactor.

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.

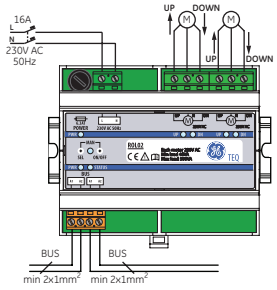
REL04



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

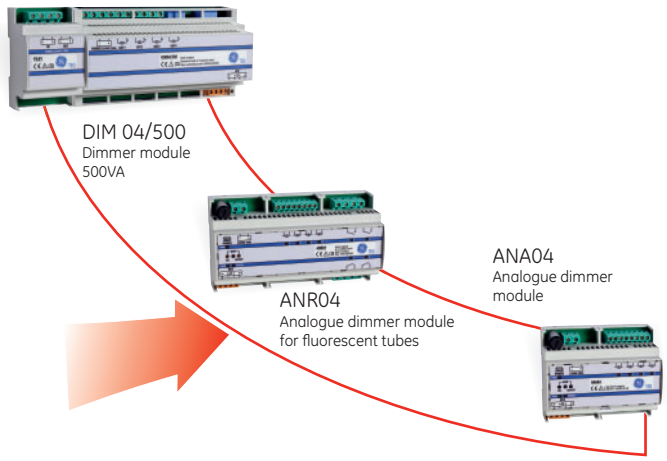
Dimmer modules

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.

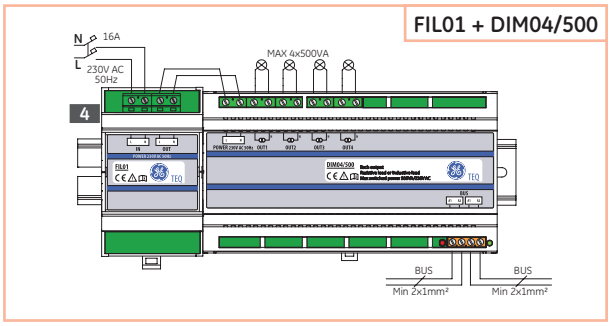
The maximum value can be adjusted from 20 to 100%. The lighting can also be dimmed automatically after a set time of 1s to 255min. Ideal for bedrooms... If the dimmers are controlled by a sequence the rise time and fall time can be adjusted independently between 0.3s and 20min. Each module has a unique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



Dimmer module DIM04/500

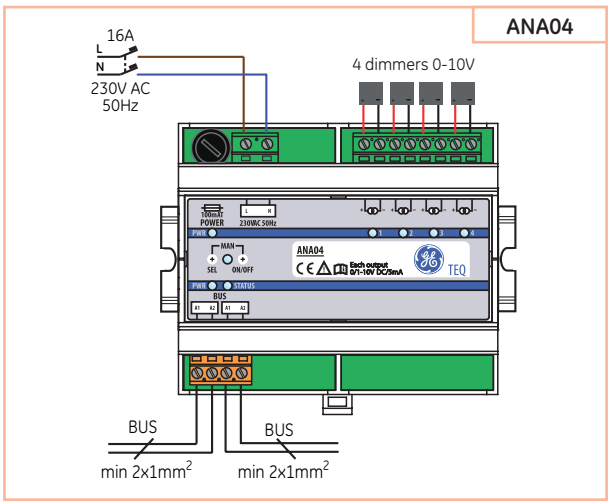
Module for a DIN-rail, suitable for dimming 4 loads of 500VA. The phase offset of each load is measured separately thus allowing the use of resistive (light bulbs) and inductive loads (conventional transformers). Electronic transformers can be used if they operate according to the phase leading principle. 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.



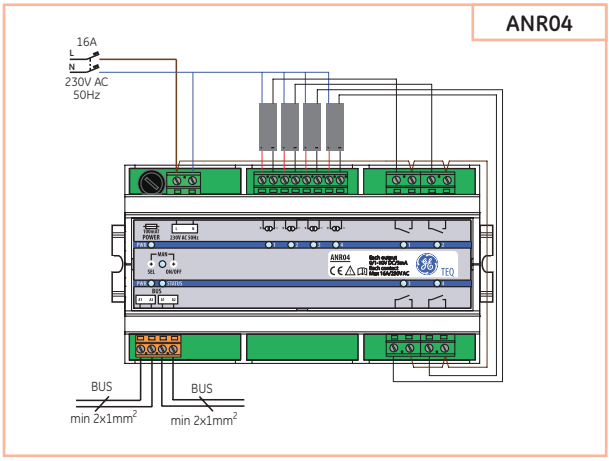
Analogue dimmer ANA04

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.



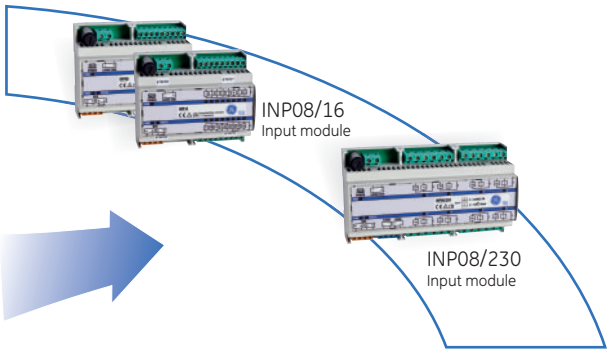
Dimmers	DIM04/500 + Line filter	ANA04	ANR04
	Forward phase dimmer modules	Analogue dimmer modules	
Power supply	230Vac, 50Hz maximum		
Max. protection needed	16A/2P		
BUS load	10mA at 13.8V		
Standard consumption	2.3VA		6VA
Internal fuse	4AF / output	100mAT single phase	
Fitting	DIN-rail		
Insulation 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.

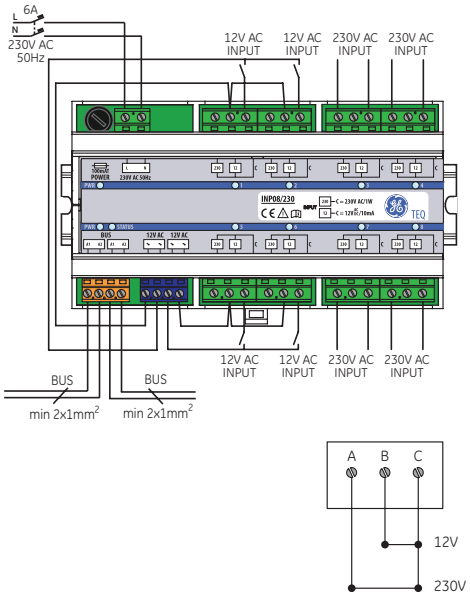
If there are inputs with potential-free contacts they can be connected to the module via 12Vac. The required voltage is provided on the top and bottom sides of the module.

INP08/INP16

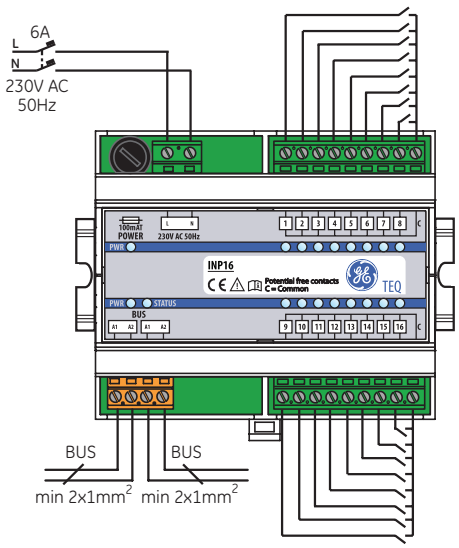
There are 8 or 16 optically insulated inputs.
Each input needs a voltage to be active.
This can be 12Vac/dc if connected between B and C (consumption approximately 10mA)

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

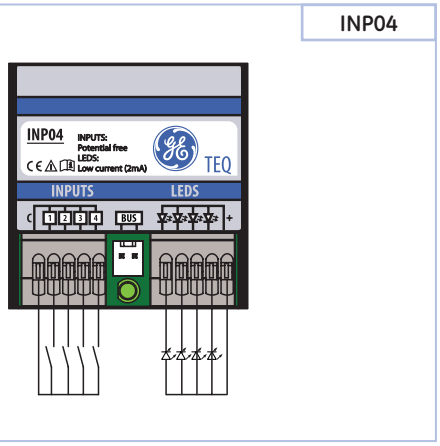


INP16



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

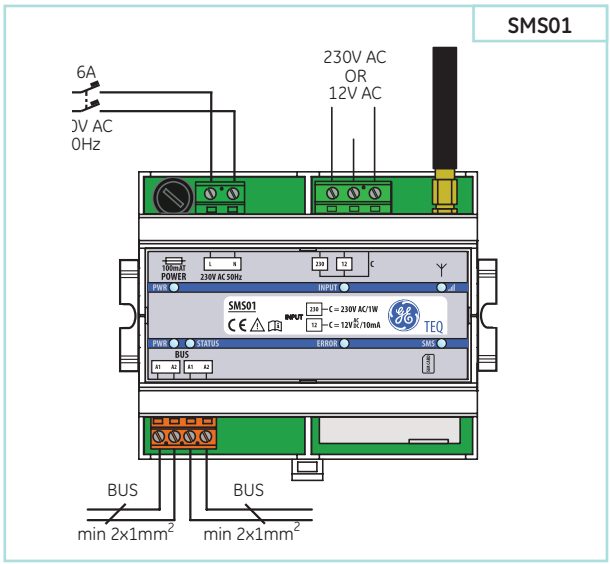
Communication can be established through the PC via an ethernet connection or through a serial USB interface. Further control of HabiTEQ system can also be achieved through a mobile phone using basic pre-configured SMS messages.

Ethernet/WEB interface

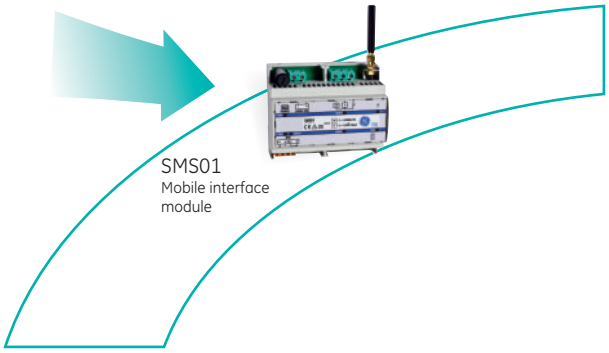
Incorporated into the controller. (see p. 24)

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

System controllers

CTD01 - mini controller USB

	Description	Ref. No.
	One BUS connection Supply 200mA at 13.8V Built-in thermal protection (When connecting the modules, polarity is not important) On average about 12-15 modules can be connected to the bus. USB port through which the controller can be connected to a computer 2GB SD Card (that stores system configuration and can log system events)	678989

CTD01E - mini controller USB & ethernet

	Same specifications as CTD01 controller Additional ethernet port with webserver	678990

CTD01E+ - mini controller USB & ethernet

	Same specifications as CTD01E controller Extended supply 400mA at 13.8V On average about 30 modules can be connected to the bus.	679841

CTD02 - full controller

	Two BUS connections Supply 500mA at 13.8V per BUS, 1000mA in total Built-in thermal protection (When connecting the modules, polarity is not important) On average 70 modules can be connected to CTD02 (about 35 per BUS). USB port through which the controller can be connected to a computer 2GB SD Card (that stores system configuration and can log system events)	678991

CTD02E - full controller USB & ethernet

	Same specifications as CTD02 controller Additional ethernet port with webserver	678992

WARNING
Read the complete manuals before carrying out any installation or activating the system.

Universal load actuators

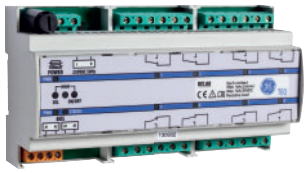
REL04 - relay module

Description	Ref. No.
DIN-rail module suitable for switching four devices. 4 potential-free NO contacts, each can handle a max of 16A at 230V (cosφ=1) Each can be allocated an individual function by means of the software The module can handle all switching functions[1]: mono-stable (bell), bi-stable (on/off), timer, interval, thermostat output, etc.	**679008**

ROL02 - shutter module

DIN-rail module, suitable for switching[1] 2 shutters / blinds / curtains. 2X2 potential-free NO contacts, each can connect 16A at 230V (cosφ=1) The second contact can only give power output when the first output is not activated. Thus avoiding mutual signals on UP1 (/UP2) and DN1 (/DN2) when activating the 2 outputs at the same time.	**679009**

REL08 - relay module



DIN-rail module, suitable for switching[1] eight devices. 8 potential-free CO contacts, each can handle a max of 16A at 230V (cosφ=1) Each can be allocated an individual function by means of the software The module can handle all switching functions: mono-stable (bell), bi-stable (on/off), timer, interval, thermostat output, etc.	**679010**

(1) For heavy inductive loads (multiple fluorescent lights) with a high capacity or bipolar applications, modular contactors need to be added. The relay module contact will then activate the coil of the contactor.

Modular contactors - Contax: see the full range of contactors in Residential components catalogue

Input modules

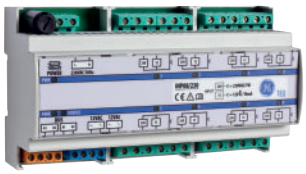
INP08 - 8-channel input module

Description	Ref. No.
DIN-rail mount module for connecting external contacts such as solar/wind detector, motion detector, door switches and push buttons. Eight potential free isolated inputs are provided The input contacts can be selected and set using the System Manager software: - Push button = button is open when inactive (e.g. doorbell). - Normal open = contact is open when inactive. - Normal closed = contact is closed when inactive. - Switch = single-pole conventional switch. The maximum length of each input is 200 meters. The cable type or its section is irrelevant.	**679014**

INP16 - 16-channel input module

Description	Ref. No.
DIN-rail mount module for connecting external contacts such as solar/wind detector, motion detector, door switches and push buttons. Sixteen potential free isolated inputs are provided The input contacts can be selected and set using the System Manager software: - Push button = button is open when inactive (e.g. doorbell). - Normal open = contact is open when inactive. - Normal closed = contact is closed when inactive. - Switch = single-pole conventional switch. The maximum length of each input is 200 meters. The cable type or its section is irrelevant.	**679015**

INP08/230 - 8-channel input module with potential (Vac/Vdc)



Description	Ref. No.
DIN-rail module for connecting external contacts such as solar/wind detector, motion detector, door switches and push buttons. 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). 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 input module. The input contacts can be selected and set using the System Manager 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 for each input is 200 meters. The cable type or its section is irrelevant.	**679016**

Input modules for any switch interface

The INP02/04 is a miniature yet versatile input module that offers the flexibility to interface any push-button switches to the HabiTEQ automation system. The size of the modules enables the mounting of the module in most of the current switch boxes.

INP02/04 - input modules

Description	Ref. No.
2-channel input module(1)	**678996**
4-channel input module	**679013**
Module for connecting regular switch. Or external contacts such as detectors, door switches, magnetic contacts for doors or windows, etc. The input contacts can be selected and set using the PC software: - Push button = button is open when inactive (e.g. doorbell). - Normal open = contact is open when inactive. - Normal closed = contact is closed when inactive. - Switch = single pole conventional switch. 4-LED connections, which can be used to indicate the status of each input.	

(1) on request

Lighting control

DIM500 - dimmer module + line filter

DIN-rail module, suitable for dimming 4 loads of 40-500VA **(refer de-rating curve for higher temp).** The dimmers operate digitally with 8-bit precision. An optical separation between the inputs and outputs guarantees safe operation. Each dimmer output is fused internally with a 4AF fuse. Ensure adequate ventilation in the fuse box. A 2P MCB of maximum 16A must be placed on the mains power.	**679942**

ANA04 - analogue dimmer module

DIN-rail module, suitable for controlling four analog dimmers operating with input voltages of 0-10V or 1-10V (can be selected via HabiTEQ System Manager software). The control contains four digital-analogue converters with 8-bit precision. An optical separation between the inputs and outputs guarantees safe operation. This module can be used for dimming very large capacities.	**679017**

ANR04 - analogue dimmer module

DIN-rail module, suitable for controlling four analog dimmers operating with input voltages of 0-10V or 1-10V (can be selected via HabiTEQ System Manager software). The control contains four digital-analogue converters with 8-bit precision. An optical separation between the inputs and outputs guarantees safe operation. This module can be used for dimming very large capacities. Each analogue 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	**679018**

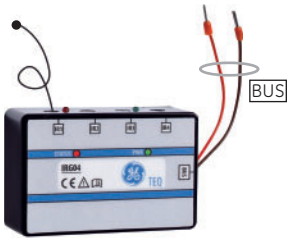
Communication interfaces

SMS01 - SMS module

Description	Ref. No.
Mobile phone interface module DIN-rail mounted 230Vac module. Enables control and monitoring of the system via simple text messages. Any SIM card from local GSM service provider, with the PIN REQUEST DEACTIVATED can be inserted into the SIM card holder Features: • Max. 8 phone numbers can access system • Max. 96 channels can be activated • Confirmation messages to selected phone numbers • Messages and values can be defined (e.g. ON- OFF - 0 - 1 - 50%...) • Maximum 16 different alarm messages *(Antenna & cable included)*	**678988**

IRG04 - infrared generator

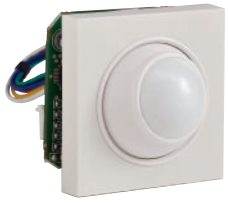
1xIR 1m



Description	Ref. No.
The IRG04 module is able to generate any IR code and transmit it to any device. This module makes it possible to control infrared operated devices such as a DVD player, music system, and shutters, aircon fan coil, TV. Each module has 4 different outputs, which can all send 16 different IR-codes. The required infrared codes need to be entered in the HabiTEQ™ SDB database by sampling them through an infrared switch with 4 buttons (SWC04I/MI) or a thermostat infrared display (THI01). The codes are stored in a non volatile memory. The IRG04 has 4 low power IR LED outputs. The IR LED attached to the included cables (2m) must be mounted immediately in front of the controlled device. All infrared codes can be sent using a SWC04I/MI, THI01, infrared remote control, TSC5.8". Includes 1-IR LED emitter with 1m cable.	**679101**

Sensors - Motion and Light

MDI01 - Motion & lights sensor - indoor



Description	Ref. No.
Wall or ceiling mount module that can detect motion & light. The detector is integrated in a built-in frame with claw attachment and is connected to the HabiTEQ bus (no polarity). The motion detector has a range of approximately 7m at an angle of 110 degrees. The System Manager software allows you determine whether the output is a combination of motion AND light or only motion or only light[1].	
White	**679084**
Black	**679092**
Metallic	**679100**

(1) Light dependent: Control of lighting in shop windows, offices, car parking areas, sunblinds, shutters, or even lighting in a home.
Features: User presettable switch light intensity, intensity range and hysteresis (to avoid on/off instable behaviour). Reaction time is also user presettable. 1 channel, 2 channels and 1 channel with incorporated digital time switch with week-cycle, all with separate photocell are available besides a 1 channel all-in-one device.
Function: Electronic switch controlled by the intensity of the ambient light, detected by a separate or integrated photocell (depending on the model). When the light intensity drops below the threshold setting, the switch changes its state to the on position. An increasing ambient light intensity eventually will switch off the device again.

Light Sensitive Switches - GALAX LSS: see the full range of contactors in Residential components catalogue

System visualization

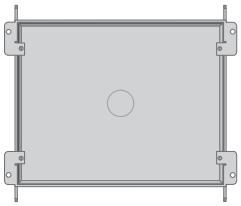
THI01 - 2-line control panel

Description	Ref. No.
Wall mount system control panel with a 2 line 16-character LCD display. Menu driven display controlled by 4 push buttons on the front. The module has the following functions in addition to control of upto 96 output channels. - Thermostat with built-in temperature sensor - Infrared receiver to control upto 99 outputs/scenes with any universal infrared remote control.	
Metallic frame	679039
White frame	679021
Black frame	679022

TSC5.8 - monochrome touch screen

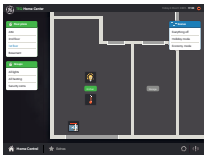
Display module with an illuminated LCD touch screen for mounting inside the wall. - User-friendly menu allows operating 96 outputs and viewing their status. - Choice between 6 main menus and a random number of outputs can be programmed under each main menu. - Up to 8 outputs can be operated per screen (=submenu). - Built-in temperature sensor for thermostats function.	679102

TSCBOX



Box for monochrome touch screen. For mounting the TSC5.8 into the wall.	679103

TEQHC - Home Center



HMI software The GE home center software runs on any Windows XP, XP Embedded or Vista PC and allows control and visualizes a HabiTEQ installation in an intuitive and user-friendly manner. The customer can easily add floor plans or groups and allocate outputs to certain rooms. Standard IP-cameras that support the mjpeg format can easily be connected to the GE Home Center	678995

TCPC / NAV10.2 - Third party panel PC

On request the GE TEQ center can be provided pre-installed on a touch panel PC hosting Win-XP . The PC comes with power supply.	
Frame grey metal	678997
Frame black	679918
Frame white	679919
Flush mounted box system	679917

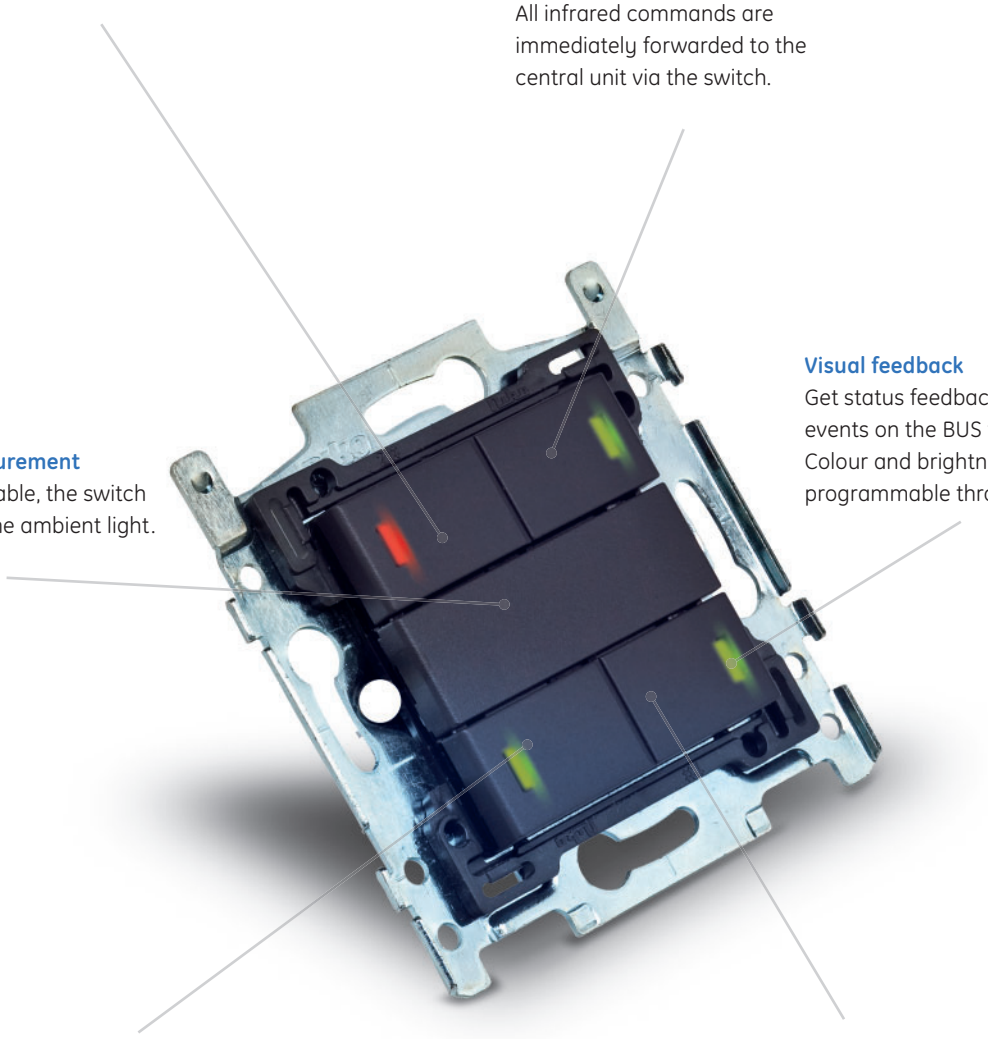
WPAD - Third party tablet PC

Black	679846
On request the GE TEQ Center can be provided pre-installed on a tablet PC hosting Windows 7 (Windows 8 starting 2013) The PC comes with AC Adapter Charger.	

Smart switch - Niko® design
Comfort simplified

Lights on
One switch not only allows you to control 8 lights individually. It also allows you to do so much more like dimming lights, delayed disconnect, controlling light atmospheres, running lights, shutters, ...

Universal infrared receiver
All infrared commands are immediately forwarded to the central unit via the switch.



Light measurement
Fully adjustable, the switch measures the ambient light.

Visual feedback
Get status feedback of different events on the BUS through LED's. Colour and brightness of LED programmable through software.

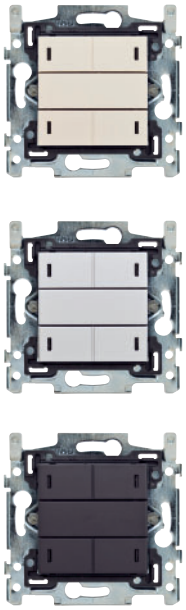
Design
The smart switch is available in Niko® design.

Digital temperature measurement
The switch senses the temperature and issues the right commands to the central unit to e.g. activate the airconditioning or the heating.

Specifications	
Power supply	BUS powered
BUS load	8 mA at nominal 13.8V
Dimensions	HxW = 71x73mm

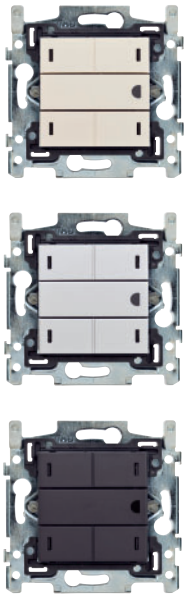
Smart switch

SWC04 - 4-button smart switch



Description	Ref. No.
• Available in 4 standard colours[1] • Further options upon request • **Cover plate to be ordered separately**[2] A 4 push-button electronic smart switch with 4 RGB LED integrated into a Niko® built-in frame with claw attachment. A BUS connection with connector (no polarity) is provided and supplies the power and control of the module. One push-button can operate 1 output, 2 scenes (short or long push) and up to 16 scenes. Simultaneous press on any of two keys enables entry into second page, where 4 more outputs are available. So in total upto 8 outputs can be controlled through this module. Each of the 4-LED gives feedback according to the status of the corresponding output. The colour and the brightness can be set via the software.	
White colour	**679023**
Cream colour	**679077**
Sterling colour	**679085**
Anthracite colour	**679093**

SWC04T - 4-button smart switch with thermostat

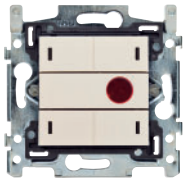
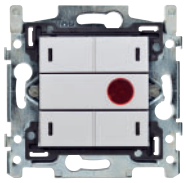
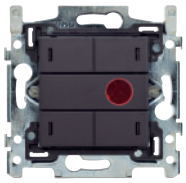


Description	Ref. No.
• Available in 4 standard colours[1] • Further options upon request • **Cover plate to be ordered separately**[2] In addition to functionality of a standard 4-button switch this version of the smart switch also host thermostat functionality, including built-in temperature sensor. **Five different programs**: - Manual - Freeze - Economy - Comfort - Night Can be activated through the keys. Each program has its own temperature setting that can be set in the HabiTEQ System Manager. The LED and the appropriate colour are used to indicate the present program running, which is also settable in the HabiTEQ System Manager.	
White colour	**679027**
Cream colour	**679079**
Sterling colour	**679087**
Anthracite colour	**679095**

(1) Other colour options on request. Lead times apply.
(2) Cover plates are not part of the switch, see page 41.

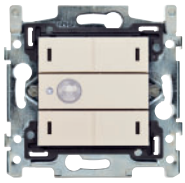
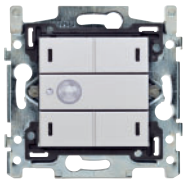
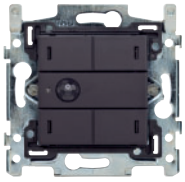
Smart switch (continued)

SWC04I - 4-button smart switch with Infrared receiver

Description	Ref. No.
• Available in 4 standard colours[1] • Further options upon request • **Cover plate to be ordered separately**[2] In addition to functionality of a standard 4-button switch this version of the smart switch also host s an Infrared receiver. It can control upto 12 outputs/scenes with a universal infrared remote control. The first 4 infrared codes are always used for the function of the 4 push-buttons. The other 8 channels can be assigned to any other output. The infrared codes can be sampled taught with this switch or they can be downloaded from the database.	
White colour	**679026**
Cream colour	**679078**
Sterling colour	**679086**
Anthracite colour	**679094**

SWC04M - 4-button smart switch with motion sensor

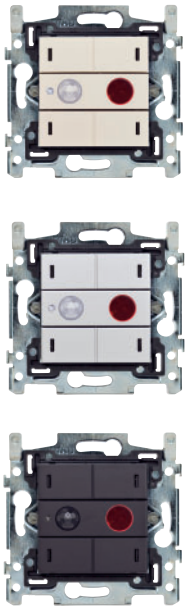




Description	Ref. No.
• Available in 4 standard colours[1] • Further options upon request • **Cover plate to be ordered separately**[2] In addition to functionality of a standard 4-button smart switch SWC04, this module contains a motion detector with an integrated light cell. The range is approximately 7m at an angle of 110 degrees. The light cell is assembled next to the detector. The motion detector is automatically linked to the function of push-button 1. The HabiTEQ System Manager allows you to determine the priority between push button 1 and the detector. At the same time you can indicate the level of movement at which the detector needs to detect together with the light level.	
White colour	**679028**
Cream colour	**679080**
Sterling colour	**679088**
Anthracite colour	**679096**

(1) Other colour options on request. Lead times apply.
(2) Cover plates are not part of the switch, see page 41.

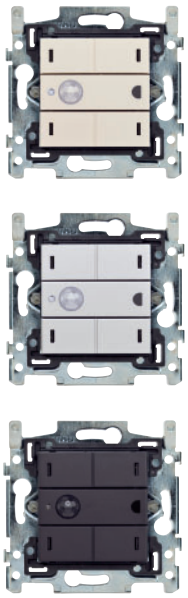
Smart switch (continued)

SWC04MI - 4-button smart switch with motion sensor & infrared receiver



Description	Ref. No.
• Available in 4 standard colours[1] • Further options upon request • **Cover plate to be ordered separately**[2] In addition to functionality of a standard 4-button smart switch SWC04, this module contains a motion detector with an integrated light cell and an infrared receiver.	
White colour	**679035**
Cream colour	**679081**
Sterling colour	**679089**
Anthracite colour	**679097**

SWC04MT - 4-button smart switch with motion sensor & thermostat

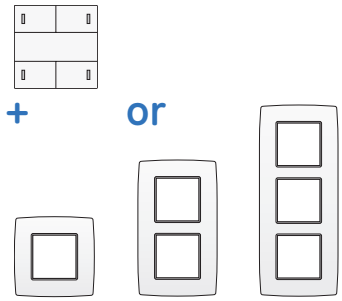


Description	Ref. No.
• Available in 4 standard colours[1] • Further options upon request • **Cover plate to be ordered separately**[2] In addition to functionality of a standard 4-button smart switch SWC04, this module contains a motion detector with an integrated light cell and a thermostat with built-in temperature sensor.	
White colour	**679030**
Cream colour	**679082**
Sterling colour	**679090**
Anthracite colour	**679098**

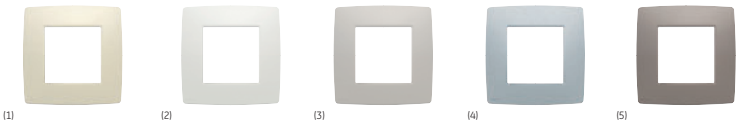
(1) Other colour options on request. Lead times apply.
(2) Cover plates are not part of the switch, see page 41.

Smart switch - frame types

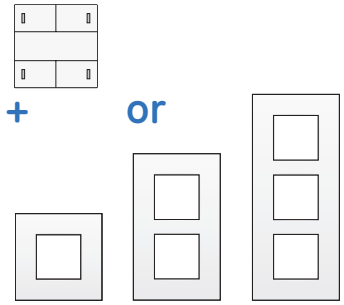
Niko® ORIGINAL - Flush surround plates



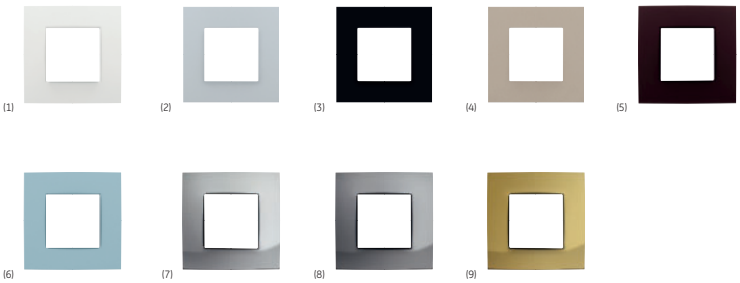
Colour	Pack	Ref. No.	Niko-code
Cream[1]	10	679920	100-76100
White[2]	10	679921	101-76100
White 2 modules	10	679853	101-76200
White 3 modules	10	679854	101-76300
Light grey[3]	10	679922	102-76100
Silver[4]	10	679923	103-76100
Greige[5]	10	679924	104-76100



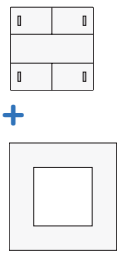
Niko® INTENSE - Flush surround plates



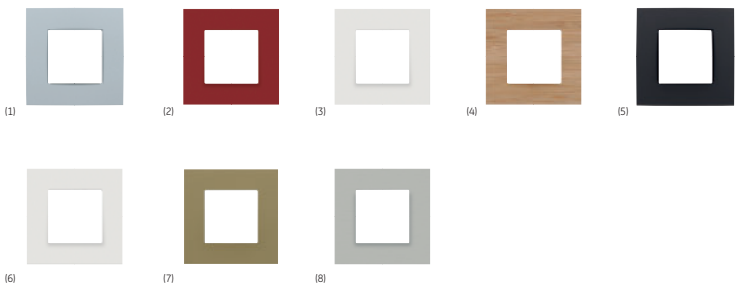
White[1]	1	679925	120-76100
White 2 modules	1	679849	120-76200
White 3 modules	1	679851	120-76300
Sterling[2]	1	679926	121-76100
Anthracite[3]	1	679927	122-76100
Anthracite 2 modules	1	679850	122-76200
Anthracite 3 modules	1	679852	122-76300
Bronze[4]	1	679928	123-76100
Dark brown[5]	1	679929	124-76100
Azure[6]	1	679930	125-76100
Silver[7]	1	679931	127-76100
Dark silver[8]	1	679932	128-76100
Gold[9]	1	679933	129-76100



Niko® PURE - Simple flush surround plates



Stainless steel for anthracite[1]	1	679934	150-76100
Natural red[2]	1	679935	152-76100
Natural white[3]	1	679936	151-76100
Bamboo[4]	1	679938	156-76100
Alu black[5]	1	679940	158-76100
Alu grey[6]	1	679937	155-76100
Champagne steel[7]	1	679939	157-76100
Stainless steel for white[8]	1	679941	250-76100



Passive infrared sensors

Compatible sensor range from GE Security (now UTC Fire & Security)

	Description	Ref. No.
	General purpose passive infrared sensors that can operate stand-alone or be linked to the system via an input module. The sensors need a separate power supply (9-24V).	
	EV100 Sensor with settable range of 5 or 10m • Angle of view 86° with 5 curtains • Adjustable field of view with mounting bracket SB01 • NC contact	**679943**
	EV100-PI Pet immune version (the sensor is immune to movement of a pet up to 20kg)	**679944**
	EV1012(1) Volumetric sensor with range 12m • Angle of view 86° with 9 curtains • NC contact when energized	**679946**
	EV1012PI(1) Pet immune version (the sensor is immune to movement of a pet up to 15kg)	**679947**
	EV525P Sensor with settable range of 25 or 16m • Angle of view 89° (volumetric) with 9 curtains • Adjustable field of view with mounting bracket SB01 • NC contact when energized	**679948**
	EV669 Ceiling mounted sensor - 10m range • Angle of view settable to 180 or 360° with 18 curtains • NC contact, voltage free relay	**679949**

(1) Please consult us.

Dual detector based sensors

	Description	Ref. No.
	Sensors with dual detection technology, combining Infrared and microwave detection to provide high quality precise detection. The sensors need a separate power supply (9-24V). **• To be linked on input module**	
	DD100 • 10m range • Angle of view 86° with 5 curtains • NC contact • Adjustable field of view with mounting bracket SB01	**679952**
	DD100PI Pet immune version (the sensor is immune to movement of a pet up to 20kg)	**679953**
	DD105 Volumetric sensor with settable range 7 or 12m • Angle of view 86° with 7 curtains • The sensors is immune to movement of a pet up to 20kg • NC contact when energized.	**679954**
	DD669[1] Ceiling mounted sensor • Angle of view 360° with 18curtains • Adjustable range 12 or 20m • NC contact, voltage free relay	**679955**
	SB01 Wall or ceiling mount bracket for EV and DD Series	**679998**
	360FM Ceiling mount bracket for EV669 and DD669 sensors	**679999**

Outdoor passive infrared detector

	Description	Ref. No.
	The sensors need a separate power supply (9-24V). **• To be linked on input module**	
	DI601 Stand-alone external sensor -10/20/30m - 33/66/98ft selectable • Electronic range setting: 10/20/30m • 10 to 70° detection angle • 180° pan & 90° tilt for flexible install • High dust and humidity resistance (IP65)	**679951**

(1) Please consult us.

Door and window contacts

	Description	Ref. No.
	The contacts have to be linked on input modules	
	DC101 Surface mount window-door contact, wired • 15mm standard operating gap • White colour • NC contact	**679968**
	DC101B Surface mount window-door contact, wired • 15mm standard operating gap • Black colour • NC contact	**679969**
	DC102 Surface mount window-door contact with screw terminals • 18mm standard operating gap • White colour • NC contact	**679970**
	DC102B Surface mount window-door contact with screw terminals • 18mm standard operating gap • Black colour • NC contact	**679971**
	DC123 Surface mount window-door contact with screw terminals • 18mm standard operating gap • CO contact	**679972**
	DC137 Surface mount window-door contact with screw terminals • 37mm wide operating gap • NC contact	**679973**
	DC141 Surface mount window-door miniature contact, self-adhesive, wired • 25mm standard operating gap • NC contact	**679974**
	DC108S1 Surface mount overhead floor mount contact, wired - armored cable • 75mm standard operating gap • NC contact	**679975**
	DC106 Recessed mount contact wired, flanged housing • 12mm standard operating gap • NC contact	**679976**
	DC127 Recessed mount contact, wired, press-fit • 31mm wide operating gap • NC contact	**679977**

Door and window contacts (continued)

	Description	Ref. No.
	DC120 Recessed mount contact wired, stubby press-fit • 18mm wide operating gap • NC contact	679978
	DC105 Recessed mount contact, wired, bare magnet • 12mm standard operating gap • The DC105-contact with its small diameter (64mm) is ideal for NC contact	679979
	MM108 Surface overhead - angle mount contact	679982
	MM115 Surface mount contact - wired	679984
	DC193 L-bracket for DC102, DC104, DC123, DC137	679985

Safety sensors

	Description	Ref. No.
	Sensors linked through input modules. Separate power supply needed (9-24V).	
	Smoke sensors	
	DP721R[1] Photoelectric smoke detector with field exchangeable optical chamber as well as a built-in relay for local switching applications • CO relay output	679956
	DP721RT[1] Photoelectric heat and smoke detector • With field exchangeable optical chamber and local relay output facilities	679957
	DP721RTA[1] Photoelectric smoke and heat detector with relay output, auto reset	679958
	DB702 Conventional fire detector base used for all 700 series conventional fire detectors. • Includes a normally closed continuity switch to allow easy cable testing during installation	679997
	211 Replacement optical chamber for 700 series detectors	679996

(1) Please consult us.

Safety sensors (continued)

	Description	Ref. No.
	Stand alone battery powered smoke detector	
	562NSE • With on board sounder • Local silence and test function • Full EN14604 approval • Self-diagnostics monitor sensitivity and operational status • Replaceable optical chamber for easy maintenance	**679950**
	Hazardous gas sensors	
	FGT312CO Alarm • 50 ppm (parts per million) 75 minutes • 100 ppm 25 minutes • > 300 ppm immediate	**679963**
	Flammable gas sensors	
	FGE312LP LPG detector for domestic applications • Alarm relay 12-24Vdc • Prealarm 5% LEL • Alarm 10% LEL	**679959**
	FGE330LP LPG detector for domestic applications • Alarm relay, 230Vac • Prealarm 5% LEL • Alarm 10% LEL	**679960**
	FGE312ME Methane detector for domestic applications • Alarm relay, 12-24Vdc	**679961**
	FGE330ME Methane detector for domestic applications • Alarm relay, 230Vac	**679962**
	Glass break sensor	
	GS930 Acoustic glass break detector - 3x3 technology • Semiconductor relay opens on alarm	**679964**
	GS905 Handheld acoustic glass break tester with real glass break sounds • Different settings depending on kind of glass to be protected	**679965**
	Sirens	
	AS270 Indoor siren, 1 tone - without flash	**679994**
	AS271 Indoor siren, 1 tone - with flash	**679995**

Safety accessories

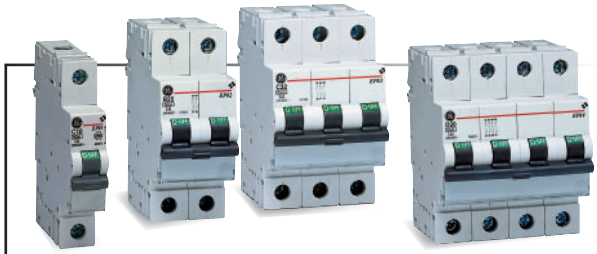
	Description	Ref. No.
	Panic buttons	
	HB191[1] Personal attack switch - single button • NC contact	679986
	HB194[1] The HB194 personal attack switch incorporates a mechanical double button • Supplied with a key reset	679987

Third party accessories

	Combined sensors CO_2, temperature and humidity -BUS connected	
	AIR01CT Measures the CO_2 concentration and temperature in the living space. The value measured can be used by the controller to activate a valve of a ventilation system, open or close a window via a motor, etc. in order to optimally aerate the space.	678999
	AIR01CHT Measures the CO_2 concentration, temperature and humidity in the living space. The value measured can be used by the controller to activate a valve of a ventilation system, open or close a window via a motor, etc. in order to optimally aerate the space.	679847
	AIR01HT Measures the temperature and humidity in the living space. The value measured can be used by the controller in order to provide optimal room climate.	679848
	Constant light control dimmer - **CLC01**	679914
	The CLC01 ensures the desired light level remains constant in every room by adapting the lighting to the intensity of the natural light. The CLC01 is supplied and controlled via the HabiTEQ two-wire bus. The required light level can be set with the HabiTEQ configuration software. A light sensor on the CLC01 continuously measures the light level. The difference between the desired and effective light level is adjusted by the CLC01 that dims the connected lighting to Maintain the light level in the room at the required level. A galvanic separation between the bus and the output guarantees its safe operation. The CLC01 has an adjustable output (via the System Manager Software): 0-10V (sourcing - max 5mA) or 1-10V (sinking - max 100mA) that can be connected to one or more lighting fixtures.	
	Shutter module - **ROL02P**	679842
	ROL02P can be used to control and position shutters. This module is suitable for switching and positioning two 230 Vac shutter motors with limit switch contacts. Each shutter on the ROL02P can be positioned between 0% and 100% of the run time. An internal calibration mechanism will calibrate the shutter every time it is fully raised or lowered. This ensures the desired position of the shutter remains accurate over time.	

(1) Please consult us.

To complete your distribution board GE presents a wide range of modular devices



MCBs

Miniature circuit breakers
From 0.5 to 125A - 1 to 4P configuration.
From 3kA to 50kA breaking capacities.
According to EN/IEC 60898-1 and EN/IEC 60947-2
Unibis™ compact MCBs:
2P in 1 module, 3 and 4P in2 modules.
Fixwell™ screwless MCBs 6 and 10kA.

RCCBs

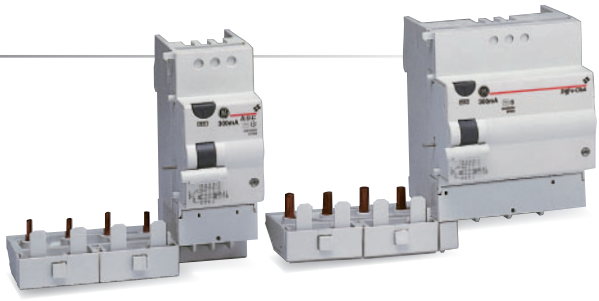
Residual current operated circuit breakers without integral overcurrent protection
From 16 to 100A and 10mA to 1000mA.
According to EN/IEC 61008-1 and BS EN 61008-1

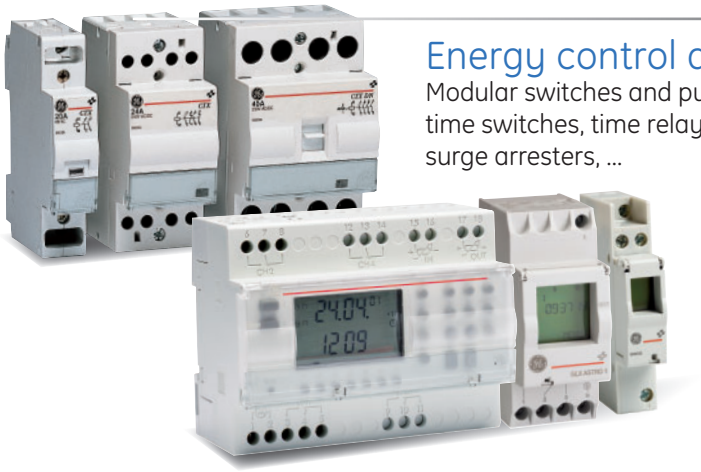
RCBOs

Residual current operated circuit breakers with integral overcurrent protection.
From 4 to 40A and 10mA to 300mA,
1P+N. According to EN/IEC 61009-1

Add-on RCDs

Add-on residual current devices for MCBs
For 2 to 4 poles MCBs, 30 up to 1000mA.
According to EN/IEC 61009-1





Energy control and comfort functions

Modular switches and push-buttons, impulse switches, contactors, time switches, time relays, transformers, measurement devices, surge arresters, ...

By reference number

Ref. nr.	Art.	Pag.
678...		
678988	SMS01	35
678989	CTD01	31
678990	CTD01E	31
678991	CTD02	31
678992	CTD02E	31
678995	TEQHC	36
678996	INP02	34
678997	TCPC	36
678999	AIR01CT	47
679...		
679008	REL04	32
679009	ROL02	32
679010	REL08	32
679013	INP04	34
679014	INP08	33
679015	INP16	33
679016	INP08/230	33
679017	ANA04	34
679018	ANR04	34
679021	THI01(W)	36
679022	THI01(B)	36
679023	SWC04(W)	38
679026	SWC04I(W)	39
679027	SWC04T(W)	38
679028	SWC04M(W)	39
679030	SWC04MT(W)	40
679035	SWC04MI(W)	40
679039	THI01(M)	36
679077	SWC04(C)	38
679078	SWC04I(C)	39
679079	SWC04T(C)	38
679080	SWC04M(C)	39
679081	SWC04MI(C)	40
679082	SWC04MT(C)	40
679084	MDI01(W)	35
679085	SWC04(S)	38
679086	SWC04I(S)	39
679087	SWC04T(S)	38
679088	SWC04M(S)	39
679089	SWC04MI(S)	40
679090	SWC04MT(S)	40
679092	MDI01(B)	35
679093	SWC04(A)	38
679094	SWC04I(A)	39
679095	SWC04T(A)	38
679096	SWC04M(A)	39
679097	SWC04MI(A)	40
679098	SWC04MT(A)	40
679100	MDI01(M)	35
679101	IRG04	35
679102	TSC5.8	36
679103	TSCBOX	36
679841	CTD01E+	31
679842	ROL02P	45
679846	WPAD	36
679847	AIR01CHT	47
679848	AIR01HT	47
679920	100-76100	41
679921	101-76100	41
679922	102-76100	41
679923	103-76100	41
679924	104-76100	41
679925	120-76100	41
679926	121-76100	41
679927	122-76100	41
679928	123-76100	41
679929	124-76100	41
679930	125-76100	41
679931	127-76100	41
679932	128-76100	41
679933	129-76100	41
679934	150-76100	41
679935	152-76100	41
679936	154-76100	41
679937	155-76100	41
679938	156-76100	41
679939	157-76100	41
679940	158-76100	41
679941	250-76100	41

Ref. nr.	Art.	Pag.
679942	DIM500	34
679943	EV100	42
679944	EV100-PI	42
679946	EV1012	42
679947	EV1012PI	42
679948	EV525P	42
679949	EV669	42
679950	562NSE	46
679951	DI502	43
679952	DD100	43
679953	DD100PI	43
679954	DD105	43
679955	DD669	43
679956	DP721R	45
679957	DP721RT	45
679958	DP721RTA	45
679959	FGE330LP	46
679960	FGE330LP	46
679961	FGE312ME	46
679962	FGE330ME	46
679963	FGT312CO	46
679964	GS930	46
679965	GS905	46
679966	211	45
679968	DC101	44
679969	DC101B	44
679970	DC102	44
679971	DC102B	44
679972	DC123	44
679973	DC137	44
679974	DC141	44
679975	DC108S1	44
679976	DC106	44
679977	DC127	44
679978	DC120	45
679979	DC105	45
679982	MM108	45
679984	MM115	45
679985	DC193	45
679986	HB191	47
679987	HB194	47
679994	AS270	47
679995	AS271	47
679997	DB702	45
679998	SB01	43
679999	360FM	43

By article number

Art.	Ref. nr.	Pag.
1...		
100-76100	679920	41
101-76100	679921	41
102-76100	679922	41
103-76100	679923	41
104-76100	679924	41
120-76100	679925	41
121-76100	679926	41
122-76100	679927	41
123-76100	679928	41
124-76100	679929	41
125-76100	679930	41
127-76100	679931	41
128-76100	679932	41
129-76100	679933	41
150-76100	679934	41
152-76100	679935	41
154-76100	679936	41
155-76100	679937	41
156-76100	679938	41
157-76100	679939	41
158-76100	679940	41
2...		
211	679996	45
250-76100	679941	41
3...		
360FM	679999	43
5...		
562NSE	679950	46
A...		
AIR01CT	678999	47
AIR01CHT	679847	47
AIR01HT	679848	47
ANA04	679017	34
ANR04	679018	34
AS270	679994	47
AS271	679995	47
C...		
CTD01	678989	31
CTD01E	678990	31
CTD02	678991	31
CTD02E	678992	31
CTD01E+	679841	31
D...		
DB702	679997	45
DC101	679968	44
DC101B	679969	44
DC102	679970	44
DC102B	679971	44
DC105	679979	45
DC106	679976	44
DC108S1	679975	44
DC120	679978	45
DC123	679972	44
DC127	679977	44
DC137	679973	44
DC141	679974	44
DC193	679985	45
DD100	679952	43
DD100PI	679953	43
DD105	679954	43
DD669	679955	43
DI502	679951	43
DIM500	679942	34
DP721R	679956	45
DP721RT	679957	45
DP721RTA	679958	45
E...		
EV100	679943	42
EV100-PI	679944	42
EV1012	679946	42
EV1012PI	679947	42
EV525P	679948	42
EV669	679949	42
F...		
FGE312ME	679961	46
FGE330LP	679959	46
FGE330LP	679960	46
FGE330ME	679962	46
FGT312CO	679963	46

Art.	Ref. nr.	Pag.
G...		
GS905	679965	46
GS930	679964	46
H...		
HB191	679986	47
HB194	679987	47
I...		
INP02	678996	34
INP04	679013	34
INP08	679014	33
INP08/230	679016	33
INP16	679015	33
IRG04	679101	35
M...		
MDI01(B)	679092	35
MDI01(M)	679100	35
MDI01(W)	679084	35
MM108	679982	45
MM115	679984	45
R...		
REL04	679008	32
REL08	679010	32
ROL02	679009	32
ROL02P	679842	47
S...		
SB01	679998	43
SMS01	678988	35
SWC04(A)	679093	38
SWC04(S)	679085	38
SWC04(W)	679023	38
SWC04(C)	679077	38
SWC04I(A)	679094	39
SWC04I(S)	679086	39
SWC04I(W)	679026	39
SWC04I(C)	679078	39
SWC04M(A)	679096	39
SWC04M(S)	679088	39
SWC04M(W)	679028	39
SWC04M(C)	679080	39
SWC04MI(A)	679097	40
SWC04MI(S)	679089	40
SWC04MI(W)	679035	40
SWC04MI(C)	679081	40
SWC04MT(A)	679098	40
SWC04MT(C)	679082	40
SWC04MT(S)	679090	40
SWC04MT(W)	679030	40
SWC04T(A)	679095	38
SWC04T(S)	679087	38
SWC04T(W)	679027	38
SWC04T(C)	679079	38
T...		
TCPC	678997	36
TEQHC	678995	36
THI01(B)	679022	36
THI01(M)	679039	36
THI01(W)	679021	36
TSC5.8	679102	36
TSCBOX	679103	36
W...		
WPAD	679846	36

The policy of GE Energy is one of continuous improvement.
The right is reserved to alter the design or any structural details of the products at any time without giving notice.

July 2012
GE Industrial Solutions

GE Energy
Industrial Solutions

105588

Industrial Solutions a division of GE Energy, is a first class global supplier of low and medium voltage products including wiring devices, residential and industrial electrical distribution components, automation products, enclosures and switchboards. Demand for the company's products comes from wholesalers, installers, panelboard builders, contractors, OEMs and utilities worldwide.

www.ge.com/ex/industrialsolutions

Belgium
GE Industrial Belgium
Nieuwevaart 51
B-9000 Gent
Tel. +32 (0)9 265 21 11

Finland
GE Energy Industrial Solutions
Kuortaneenkatu 2
FI-00510 Helsinki
Tel. +358 (0)10 394 3760

France
GE Energy Industrial Solutions
Paris Nord 2
13, rue de la Perdrix
F-95958 Roissy CDG Cédex
Tel. +33 (0)800 912 816

Germany
GE Energy Industrial Solutions
Robert-Bosch Str. 2a
50354 Hürth-Efferen
Tel. +49 (0) 2233/ 9719-0

Hungary
GE Hungary Kft.
Vaci ut 81-83.
H-1139 Budapest
Tel. +36 1 447 6050

Italy
GE Energy Industrial Solutions
Centro Direzionale Colleoni
Via Paracelso 16
Palazzo Andromeda B1
I-20041 Agrate Brianza (MB)
Tel. +39 2 61 773 1

Netherlands
GE Energy Industrial Solutions
Parallelweg 10
Nl-7482 CA Haaksbergen
Tel. +31 (0)53 573 03 03

Poland
GE Power Controls
Ul. Odrowaza 15
03-310 Warszawa
Tel. +48 22 519 76 00

Ul. Leszczyńska 6
Bielsko-Biała 43-300
Tel. +48 33 828 62 33

Portugal
GE Energy Industrial Solutions
Rua Camilo Castelo Branco, 805
Apartado 2770
4401-601 Vila Nova de Gaia
Tel. +351 22 374 60 00

Russia
GE Energy Industrial Solutions
27/8, Electrozavodskaya street
Moscow, 107023
Tel. +7 495 937 11 11

South Africa
GE Energy Industrial Solutions
Unit 4, 130 Gazelle Avenue
Corporate Park Midrand 1685
P.O. Box 76672 Wendywood 2144
Tel. +27 11 238 3000

Spain
GE Energy Industrial Solutions
P.I. Clot del Tufau, s/n
E-08295 Sant Vicenç de Castellet
Tel. +34 900 993 625

GE Digital Energy EMEA
Avenida Pinoa, 10
E-48170 Zamudio
Tel. +34 94 485 88 00

United Arab Emirates
GE Energy Industrial Solutions
1101, City Tower 2, Sheikh Zayed Road
P.O. Box 11549, Dubai
Tel. +971 43131202

United Kingdom
GE Energy Industrial Solutions
Houghton Centre
Salthouse Road
Blackmills
Northampton
NN4 7EX
Tel. +44 (0)800 587 1239

GE imagination at work

680829
Ref. R/2427/E/X 3.0 Ed. 07/12

© Copyright GE Industrial Solutions 2012