## Mounting

1. Prepare a SIM card so that the PIN code is 1234 or deactivated. Mount the card in the unit. The unit now has 1234 as password or runs without a password. The card is turned the way shown below.

2. Connect inputs, outputs and power cable.

3. Connect power. The unit first gives one short beep and then a red diode is lit. After approximately 20 sec. the diode flashes every 2 sec. and the unit is ready.

4. Connect a rechargeable 3,6 V Li-ion battery.

The multiGuard unit interior
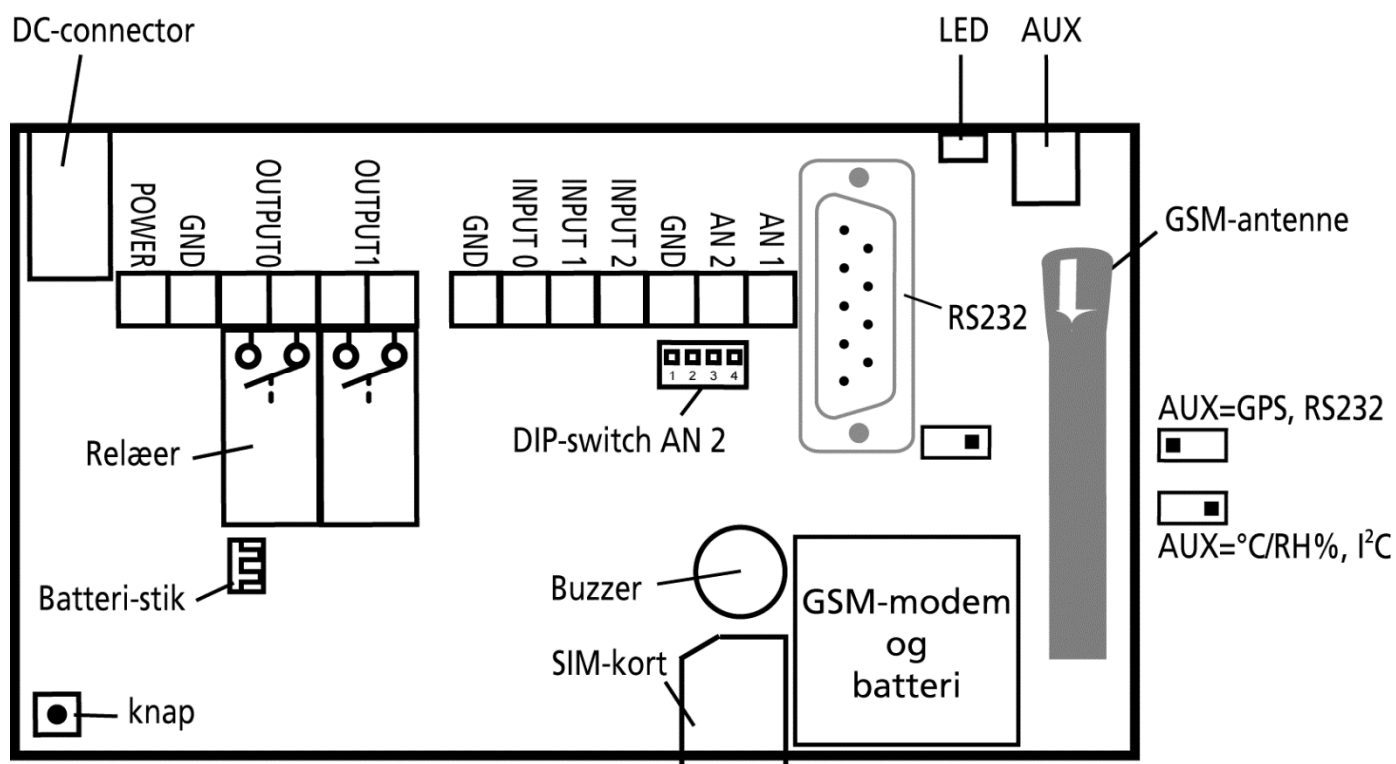
DIP-switch for analog indgang 2 (AN 2)

1 ON:	0-10 VDC
2 ON:	0/4-20 mA
3 ON:	PT-100
4 ON:	Profort, PTC- probe
All OFF:	digital input

Voltage on in- and outputs

Output:	AC max 230 VAC, 6A
	DC max 30 VDC, 6A
Inputs, digital:	max 24 VDC
	max power 2 mA
Input, analogue 2:	max 0-10 VDC
	Press only voltage when DIP-switch 1 is on and 2-4 are off
Input, analogue 1:	Profort, PTC probe

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Set-up

Set-up on PC via the PC COM-port

1. Connect the unit to the PC COM-port with an RS-232 cable or a USB-RS232 converter (the driver of the converter needs to be installed).

2. Install the Profort PC Program in a computer with Windows by downloading the program from www.profort.com. Start the program and type in the product key which can be found on the page.

3. Type in the number of the COM-port that the PC uses.

4. Fill in the rest of the information in the set-up program and finish with transferring it to the unit.

For further help: press F1 in the program; see the manual on www.profort.com

Set-up via masterView

1. Open a browser on your PC, tablet or smartphone.

2. Type http://setup.masterview.dk in the address bar, and choose 'setup' (or login via www.profort.dk). Log on to the portal or create yourself as user. An unlimited number of units can be connected to any user, and several users can be connected to the same units.

3. Create a new unit in the list and choose multiGuard Technic IO as unit. When you press SAVE the portal sends a text message to the unit, which connects it to the Profort server via GPRS/Internet on the SIM-card. The USERNAME of the unit will now be its telephone number (to be used, if controlling the unit via the Profort app). All communication will then take place as data.

4. Type in the required information and press 'send and save'.

5. The unit is now ready to use.

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Set-up with text message

1234 = password, 0 = zero, space counts as a character and is therefore important.

Define the phone number of the unit and (optionally) change password	`1234 N0 xxxxxxxx yyyy` (N0 = N + zero)	xxxxxxxx = mobile number of unit. yyyy = new four-digit password Defines the telephone number of unit (N0) and creates new password. New password can be omitted..
Receivers Register no. 1, no. 2 and so on	`1234 N1 11111111` `1234 N2 22222222`	Registers receiver 1 and 2 to receive text to phone number 11 11 11 11 and 22 22 22 22 All in all 25 receivers.
Delete no. 1	`1234 N1`	Deletes receiver 1
Text on inputs Create	`1234 Ax TEXT`	TEXT on input x by open/break. x = 0,1, or 2
	`1234 Lx TEXT`	TEXT on input x by close/make. x = 0,1 or 2
Delete	`1234 Ax`	Deletes TEXT for input x by open//break. x = 0, 1 or 2.
	`1234 Lx`	Deletes TEXT for input x by close/make. x = 0, 1 or 2
Only alarm if text is created	`1234 CT`	The unit ignores input that does not have text connected to it.
Opret analog indgang	`1234 V1 S yyyy zzzz`	Set-up of the scale (yyyy = minimum zzzz = maximum) for 0-10 V and for 0-20 mA.
	`1234 V1 M yyyy zzzz`	Set-up of values for intervals LOW, MIDDLE and HIGH (Point 1 and Point 2) on analogue input 1. If the value on input becomes larger or smaller than yyyy (Point 1) or larger or smaller than zzzz (Point 2), an alarm is sent.
	`1234 V1 A TEXT`	Alarm text LOW on analogue input 1 is sent when the value becomes smaller than the value defined in Point 1/yyyy (`Vx M yyyy zzzz`).
	`1234 V1 L TEXT`	Alarm text MIDDLE on analogue input 1 is sent when the value becomes higher than the value defined in Point 1/yyyy or lower than the value in Point 2/zzzz (`Vx M yyyy zzzz`).
	`1234 V1 B TEXT`	Alarm text HIGH on analogue input 1 is sent when the value becomes higher than the value defined in Point 2/zzzz (`Vx M yyyy zzzz`).

www.profort.dk

Set-up		
Activate output on alarm	`1234 Gx`	x = 1-9 (1 = 10 sec., 2 = 20 sec., 3 = 30 sec., 4 = 1 min, 5 = 2 min, 6 = 4 min, 7 = 8 min, 8 = 16 min and 9 = constant.) Sets the relay output to activate in x time in case of alarm on an input.
Outputs follow condition on inputs	`1234 GA`	Indicates that the output follows the corresponding input if text is created. Notice: input signal has higher priority than command `S0` (S + zero) and `B0` (B + zero)

For further help: see the manual on www.profort.com

Control of relay and functions with call from telephone

Relay:

Call the unit. Type in 1234 (password) when the connection is established, and await two 'beeps'. Type in the chosen code and end the call.

Code examples:

*00 (asterisk + zero + zero)	Pulses relay output for 10 sec.
*10 (asterisk + 1 + zero)	Opens relay output
*20 (asterisk + 2 + zero)	Closes relay output

Macro:

Call the unit. When the connection is established, type in the chosen code and end the call.

x (x = 0-9 for macro 0-9)	Executes macro x

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Control with text message

Connect and disconnect the unit	1234 ON	Inputs are activated, red diode flashes lazily every other second.
	1234 OF	Inputs are deactivated, red diode flashes briefly every other second.
Activation of output	1234 S0 (S + zero)	Closes output
	1234 B0 (B + zero)	Opens output
	1234 P0 (P + zero)	Pulses output for approx. 10 sec.
Download	1234 OK	Downloads info about GSM transmission power and battery level. Example: OK>>OK SQ: xx% BAT: yyV xx = transmission power in percent. 25 % is lowest acceptable value yy = battery status
	1234 V1 R	Downloads measurements on the analogue input
Connection to the Internet	1234 EH USERNAME	GPRS traffic starts
	1234 EH	GPRS traffic stops
Send alarm immediately in case of power failure	1234 JS	Sends alarm immediately in case of power failure (after approx. 10 secs.)
	1234 JM	Sets the unit to send alarm in case of power failure after approx. 30 min. (Default setting)

Other management

The unit can also be managed through the PC program and all the functions can be controlled directly on the Internet. At the bottom of the print there's a button with the following functions:

1. If button is pressed down while power supply is connected, a beep sounds after 7 seconds. This sets the unit to factory settings.

2. If button is pressed down during normal operation, a 'beep' sounds after 7 seconds. If button is released immediately, macro 1 is performed. If no function has been saved behind macro 1, nothing happens.

3. If button is pressed down after 7 secs., another 'beep' sounds after 14 secs. This activates sabotage.

See more in the manual or for Internet management log on www.profort.com

Macro with command

Collect one or more commands in a 'super command' called a macro. Give it a name and activate it with that name. It works with either text message, phone call, DTMF-tones, or over the Internet. It is possible to create 10 macros.

A macro can be created with commands or with infrared codes from e.g. a remote control.

Create macro no. 1 with command	`1234 M1 NAME <COMMAND>` E.g. *1234 M0 TEMP <V1 R>*	Creates macro M0 .. M9 with the name NAME and attaches a command. More commands in the same macro are divided by semicolon ';' without space. Example: `1234 SHORT PULSE <S0;B0>`
Play macro	`TEMP`	Plays the macro with the name TEMP
Delete macro no. 1	`1234 M1`	Deletes macro 1 (M0..M9).

For further help: see the manual on www.profort.com

Connection of temperature probe

The unit has a built-in plug (AUX) for montage of e.g. temperature probe.

The built-in switch must be placed at the position indicated with °C/RH%, I²C (see figure page 1) for the probe to be used. For the probe to measure humidity and temperature the GSM unit needs to be set up. In following example boundaries are set at 4°C and 30°C by temperature and at 35% RH and 65% RH by the relative humidity.

Version 2.02

Power supply

12-24V DC min 0,5 A (included)

Battery

3,6V rechargeable Li-ion battery (included)

Consumption

Approx. 25 mA while resting (supplied with 12VDC)
150 mA when charging with battery
2 mA in case of power failure and supply with battery

Output

Max 6 A at 230V AC
Max 6 A at 35V DC

Inputs, digital

Max 1V, 2 mA (GND)
Min. 18V max 30 V (24V DC)

Input 0: also dis-/connection (level/pulse)
Input 1: also pulse/minute counter
Input 2: also pulse counter

Input, analogue 1 (AN 1)

Profort temperature sensor (Profort-no. 007995)

Input, analogue 2 (AN 2)

0-10V DC
0/4-20mA
PT-100
Profort temperature sensor (Profort-no. 007995)

Pulse and minute counter

Max 10Hz. Max one mio. pulse or minutes

Dimension

Design box, black
130x85x24 mm, weight: 125 g.

Temperature

– 20 °C - +55 °C

Antenna

1 internal antenna for GSM-modem. Possibility for external antenna (Profort-no. 369003)

The Profort PC Program Quick-setup

Compatible with all versions of Windows. The PC needs to have a COM-port (RS232). A USB-RS232-converter or connection through Internet via GRPS must be used.
NB! Product key for the PC program is available on www.profort.com

GSM unit – 9 moduler

- 4 relay outputs
- 8 digital inputs
- 2 analogue inputs
- 230V/12-24V 3,6V Li-ion back-up battery (inclusive)
- 9V rechargeable back-up battery (acquisition)
- DIN wall mount modules

multiGuard® Master RF

- 8 relay outputs
- 8 digital inputs
- 4 analog inputs
- Wireless 868 Mhz receiver
- 230 V / 12-24 V power supply
- 9 V rechargeable back-up battery (acquisition)
- Modbus interface
- IP-65 box
- Touch display for set-up and programming

multiGuard® Remote IO

- 1 relay output
- 2 senders of infrared codes for heat pump control
- 3 digital inputs
- 1 built-in temperature and humidity sensor
- 1 recorder for infrared codes
- 12 VDC power supply (inclusive)
- 3,6 V Li-ion back-up battery (inclusive)
- Design box for wall mount
- Plug for external IR-transmitter

IP-65 box for multiGuard® DIN4/6/9-series

- Waterproof box
- DIN-rail for 4/6/9 modules
- 3 PG inputs

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