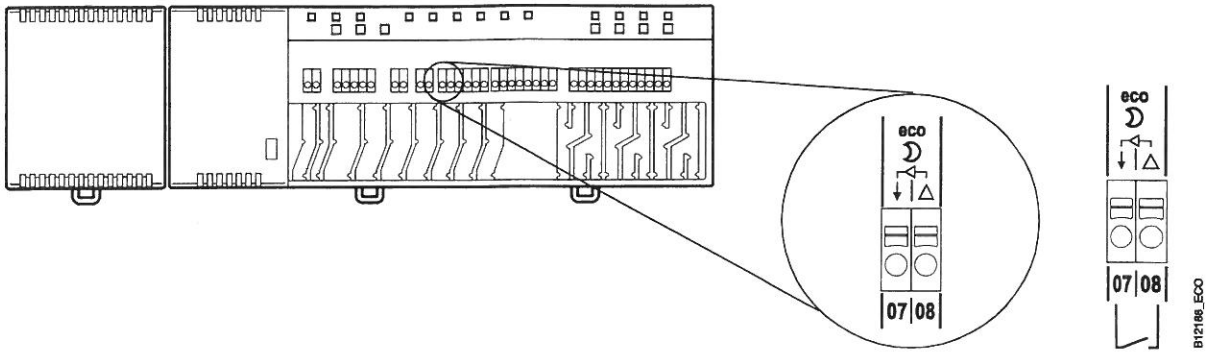
Vejledning for tilkobling af Roth GSM modul til Roth Touchline Kontrolenhed

Generel information omkring funktionen og brugen af Roth GSM modul kan læses i den vedlagte vejledning "GSM Controller". Vær opmærksom på at det SIM kort der anvendes ikke må være beskyttet med PIN kode!!

1. For tilslutning af Roth GSM modul til Touchline Kontrolenhed trækkes der en ledning fra GSM modulets klemme mærket "OUT" til klemmerne 07 / 08 (ECO Input) på Kontrolenheden. Ledningen skal være min. 0,25mm², men kan også være ganske almindelig "lampeledning".

   Da der er tale om et potentialefrit signal har det ingen betydning hvordan ledningen tilsluttes (+/-).

Eco-input, til reduceret mode med en spændingsløs kontakt



Terminal 07 / 08, Ekstern kontakt: *lukket: reduceret mode*
åben: normal mode

Efter tilkobling af Roth GSM modul til Touchline Kontrolenhed skal ECO Inputtet konfigureres. Dette gøres via en tilmeldt Touchline rumtermostat i service menuen, parameter P-61.

Gå ind i servicemenuen

P-SE

Servicemenuen er beskyttet med en servicekode. → Denne servicekode kan ændres med parameter P-36. → Se parameterbeskrivelse P-36 i Touchline brugermanualen som leveres sammen med Kontrolenheden.

Den trådløse rumtermostat er i stand-by mode.

- ▶ Tryk på en tilfældig knap på den trådløse rumtermostat i 2 sekunder.
- ▶ Displayet skifter til driftsmode. Rumtemperaturindstillingsværdien blinker.
- ▶ Tryk på sensorknap ☰ 5 sekunder for at gå ind i brugermenu. Displayet viser **P01**.
- ▶ Tryk på sensorknap ☰ gentagne gange indtil displayet viser **P-SE**.
- ▶ Tryk på sensorknap ☑. Displayet viser **0000**.
- ▶ Tryk på sensorknap ☑ og ☑ for at indsætte servicekoden. Fabriksindstilling af servicekoden er **1234**. Bekræft hvert valgt ciffer med sensorknap ☑.

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- ▶ Hvis servicekoden er korrekt viser displayet **P-20**, ellers viser displayet **P-SE**.
- ▶ Tryk på sensorknap ☰, for at vælge parameter gruppe P-20, P-30, P-40, P-50 og slutteligt P-60
- ▶ Tryk på sensorknap ☑, for at bekræfte den valgte parametergruppe P-60. Displayet viser parameter **P-61**.
- ▶ Tryk på sensorknap ☑. Displayet viser **0**.
- ▶ Tryk på sensorknap ☑ eller ⌃, for at vælge mulighed **0**, **1**, **2**, **3** or **4**. (se nedenfor)

P-61 Konfigurer ECO eller N/R input.

Med ECO-input er det muligt at overskrive driftsarten for alle trådløse rumtermostater ved brug af en supplerende omskifterkontakt (f.eks. et ur) eller et GSM modem. Afhængigt af den valgte mulighed kan denne funktion enten skifte mellem "normal" og "reduceret" eller mellem "normal" og "frostbeskyttelse (off)".

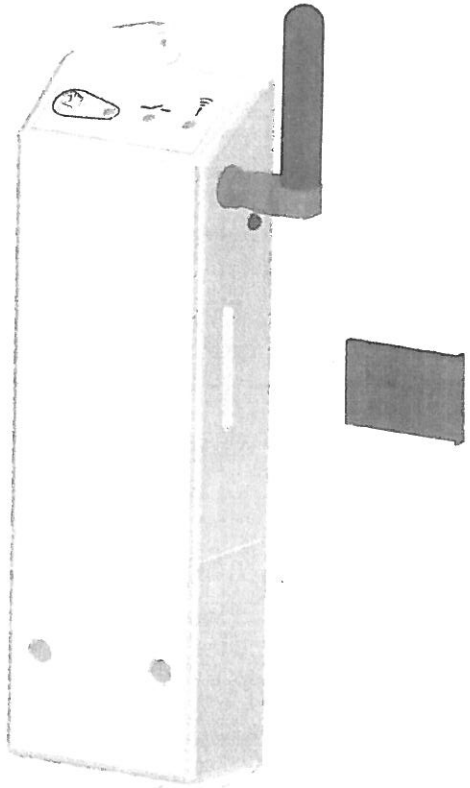
Hvis ECO-Input er Aktiveret, viser displayet symbolet ◷.

- Fabriksindstilling: Mulighed "0"
- Muligheder:
  - 0: N/R-Input er inaktiv. Hvis der er valgt et tidsprogram ved den trådløse rumtermostat, har dette tidsprogram fortrinsret.
  - 1: ECO-Input har højeste prioritering, skifter til "reduceret".
    - ECO-Input aktiv: tidsprogram trådløs rumtermostat deaktiveret, drifts-mode og indstillingsværdi kan ændres.
    - ECO-Input inaktiv: alle funktioner i trådløs rumtermostat tilgængelige, inklusive tidsprogram. Symbol ◷ vises fast.
  - 2: ECO-Input har højeste prioritering, skifter til "reduceret".
    - ECO-Input aktiv: tidsprogram Trådløs rumtermostat deaktiveret, drifts-mode og indstillingsværdi kan ikke ændres.
    - ECO-Input inaktiv: alle funktioner på trådløs rumtermostat tilgængelige, eksklusive tidsprogram. Symbol ◷ vises fast.
  - 3: ECO-Input har højeste prioritering, skifter til "frostbeskyttelse (off)".
    - ECO-Input aktiv: tidsprogram trådløs rumtermostat deaktiveret, drifts-mode og indstillingsværdi kan ændres.
    - ECO-Input inaktiv: alle funktioner på trådløs rumtermostat tilgængelige, inklusive tidsprogram. Symbol ◷ vises fast.
  - 4: ECO-Input har højeste prioritering, skifter til "frostbeskyttelse (off)".
    - ECO-Input aktiv: tidsprogram trådløs rumtermostat deaktiveret, drifts-mode og indstillingsværdi kan ikke ændres.
    - ECO-Input inaktiv: alle funktioner i trådløs rumtermostat tilgængelige, eksklusive tidsprogram. Symbol ◷ vises fast.

Drift

- ▶ Vælg en af følgende muligheder:
  - Tryk på sensorknap ☑, for at gemme den ændrede indstilling. Displayet viser det næste parameter **P-62**. Tryk på sensorknap ☒, for at forlade menuen.
  - Tryk på sensorknap ☒, for at afbryde proceduren. Displayet viser det valgte parameter.

GSM Controller



INSTALLATION AND OPERATION MANUAL

GSM Controller

⚠ IMPORTANT!

Before starting work the installer should carefully read this Installation & Operation Manual, and make sure all instructions contained therein are understood and observed.

All instructions in this Installation & Operation manual should be observed when working with the control. Any other application shall not comply with the controller. The manufacturer shall not be liable in case of incompetent use of the controller. Any modifications and amendments are not allowed for safety reasons. GSM Controller maintenance may be performed by service shops approved by the manufacturer only.

The GSM Controller, shall be mounted in a dry location. For example near the electrical distribution panel.
The external temperature sensor shall be mounted in the coldest place in the house. For example where there is risk for freezing.
The sensor should be installed in a separate flexible electrical conduit for easy replacement. The sensor can be extended to 25 m with a separate cable 2 x 1,5 mm².
In order to avoid signal disturbance, resulting in a possible malfunction of the module, the sensor should not be installed in a conduit together with other power carrying cables.

Note: If you do not want to use the external temperature sensor for alarm function, you have to disable this sensor alarm function in the Configuration for the GSM-controller.

The functionality of the control depends on the model and equipment. This installation leaflet is part of the product and has to be obtained.

Subject to technical modification!

Table of content

1 Application

- The GSM Controller allows you to remote control by GSM mobile (SMS) a changeover between Comfort and ECO mode of your heating system in your house. This can be done in two ways:

  - The GSM Controller is directly connected to the radiators via the Control conductor.

  - The GSM Controller is directly connected to the Clock via its optional input. Then the Clock can receive the information of the GSM controller and can send by radio signal this information to all your electrical panel heaters.

2 References, Symbols and Abbreviations

For better understanding in this document references are used in the form of symbols and abbreviations, which are described below.

➔ Reference to further documents

Important information and application hints

⚠ Safety information or
Important information about functions

3 Safety Instructions

Before starting work disconnect power supply!
All installation and wiring work on the GSM controller must be carried out only when de-energized.
The appliance should be connected and commissioned by qualified personnel only. Make sure to adhere to valid safety regulations, in particular to the electrical norms in accordance with your country.

⚠ The GSM controller is neither splash, nor drip-proof. Therefore, they must be mounted at a dry place.

4 Display

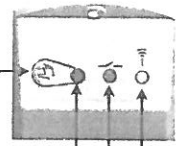


Fig.1

5 Dimensions

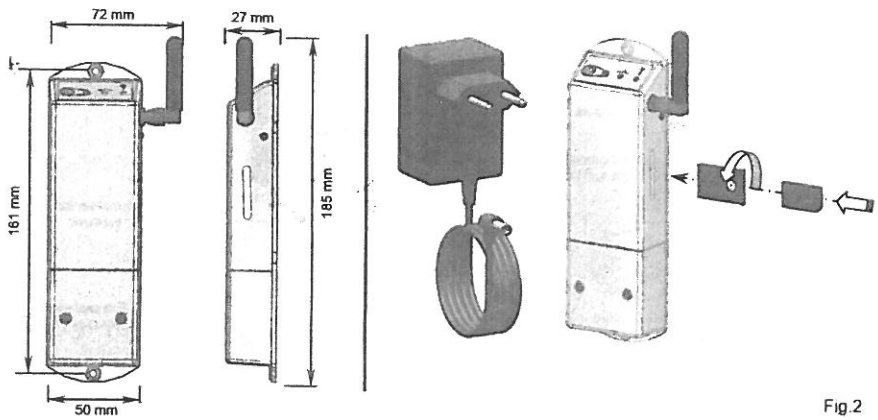


Fig.2

6 Installation and Electrical connections

6.1 GSM Controller Installation

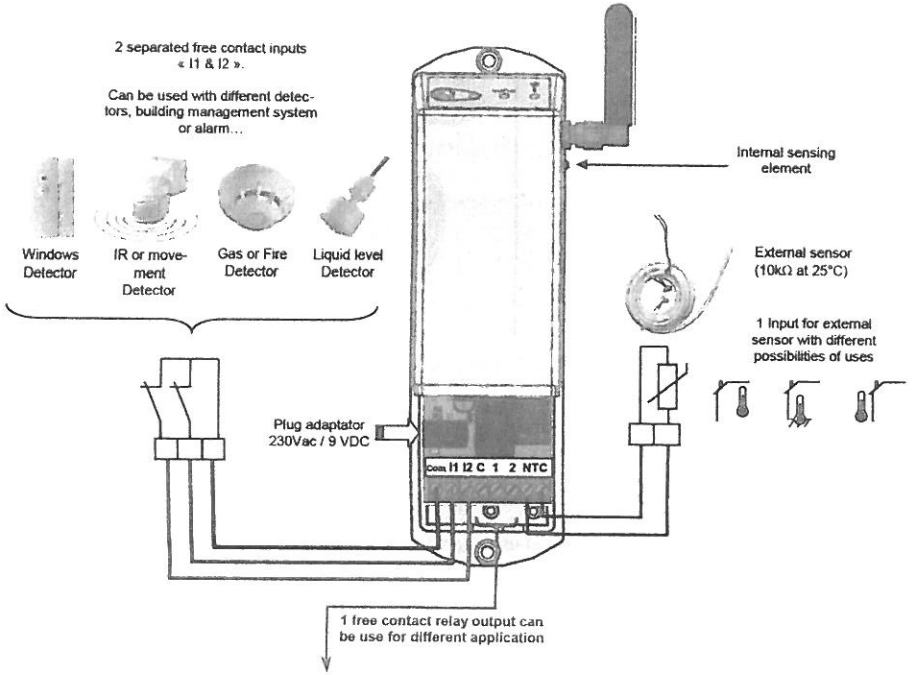
The GSM controller can be installed directly on a solid base (e.g. a wall). For this purpose it is not necessary to disassemble the product it should be fastened using appropriate screws and pins (these are not included in the scope of supply) Fix the GSM controller on a plane surface (wall...) in accordance with the following rules:

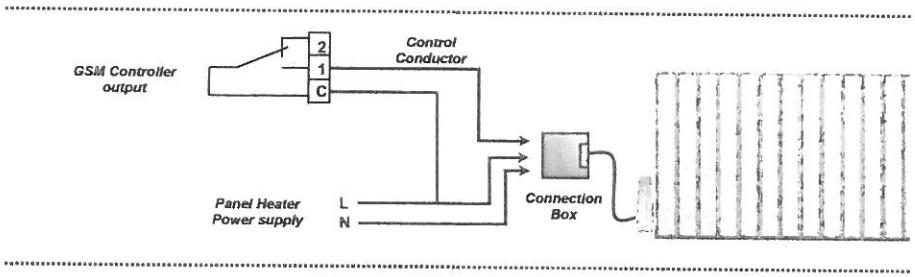
⚠ Pay attention before the installation of your receiver, some routing rules should be making to guaranty an optimal working.

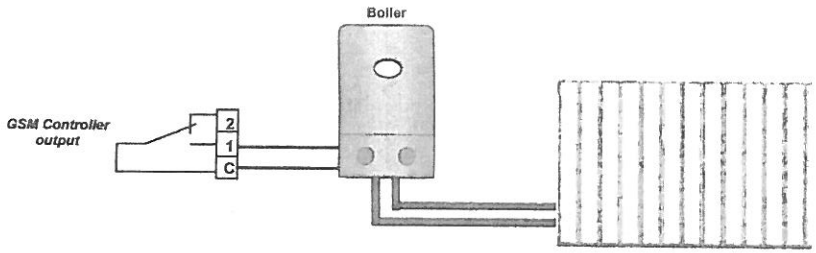
- The receiver must be put at a minimum distance of 50cm of all others electrical or wireless materials like Wi-Fi router, electrical panel...
- The receiver can't be fixed on or inside a metallic part (cabinet...) to avoid GSM signal attenuation.
- Before wiring this product, the main power supply must imperatively be de-energized.
- See the fig4 in part ➔ **6.2** for electrical connections.
- After making the electric connections, refit the front panel.

6.2 Electrical connections

All electric connections must be made by an authorized specialist according to the local regulations on electric installations. The electrical cables must not come into contact with any hot components.





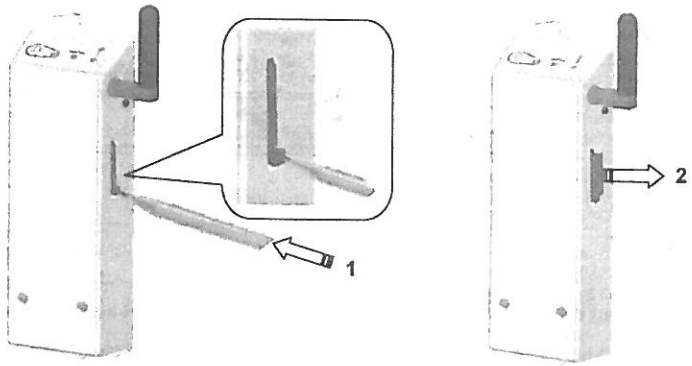


6.3 First start – install a SIM-card in the GSM-controller and control the working

- Unplug the power supply of the GSM controller

- Install a SIM card, (***without PIN code**) in the right side of the controller (See picture below).

⚠* In order use a mobile phone to de-activate the PIN code.



- Plug 230V/9VDC power supply (only the plug adaptor supplied or one with the same characteristics can be used). Then the unit starts the initialisation (up to 1 min) and connecting to the GSM network.
During initialisation the two first LED must be blink alternatively (Green/Red), the network LED starts to blink when connected to the network.

- You can now test the output relay with the connected system by using the derogation button (see Fig2).
With a LVI "RF Clock" check the good reception of the new order, the changeover of operating mode Comfort to ECO)

ⓘ If the GSM controller is supplied with an internal battery, a preliminary time charge for 24H will be needed to have the power supply supervising function SMS alert.

- To check the functionality of your GSM module send a SMS-message with the only text **"PASS"** to the mobile phone number for the SIM-card in the GSM-controller
ⓘ That a complete international phone number shall be used. For example +46xxxxxxxxxxxx

The module will return with a SMS-message:

PASS	Indicates the room temperature in °C where the GSM-controller is installed (sensing element close to the GSM antenna on the right side)
TEMP: INT: xx EXT: xx	Indicates the external sensor temperature in °C if connected. Value NC will be displayed if no sensor connected.
ALARM1:x ALARM2:x	Indicates the status of alarm inputs 1 and 2. 0=OFF (normal status = contact between "C and 1" closed) 1=ON (Alarm detected = contact between "C and 2" open)
OUTPUT=x	Indicates the status of the relay output. (0=OFF / 1=ON) To set the relay output ON or OFF: **Forward** all the SMS-texts back to the GSM-controller, with the only change OUTPUT=1 => Relay On =Contact between C and 1

ⓘ For turning off the relay output the above can be done again, with OUTPUT=0, or push the derogation button on the GSM-controller for 1 sec.

7 Configuration of the GSM-controller for more functions.

Send SMS-message with only the text **"PASS CONF"** to the mobile phone number for the SIM-card in the GSM-controller.
The GSM-controller will return with a SMS-message with the factory values:

PASS
CODE=PASS
REPLY=ON
ALARM1=ON
ALARM2=ON
ALARMTEMP=x
OUTPUT=x
HEARTBEAT=x
SMSCOUNTER=x
PHONE=
+xxxxxxxxxxx

Actual password to receive the status message (Default setting PASS)

CODE: Here you can change your 4-characters password.
Only the standard characters are authorized (A to Z or 0 to 9)
This password will be used for all messages: "xxxx" followed by the command

REPLY: Reply of the GSM controller
Choose if the GSM-controller shall confirm command or not.

ALARMx: Activation of the Alarm inputs
ON => a SMS is sent when an event on the input occurs.
OFF => the Alarm is deactivated.

ALARMTEMP: Setting level of temperature alarm (When this value is reached a SMS will be sent) 0 = > Function deactivated.
5 to 35 => Setting level in °C.
By default the supervised temperature is the temperature measured by the internal probe.
If you want to supervise the external probe temperature, you should add the text "EXT" behind the setting level (Ex: **"10 EXT"**)

OUTPUT: Type of output control
0 = > The output is only controlled by SMS or by derogation button.
1 => Output = ON if event occur on alarm1 input.
2 => Output = ON if event occur on alarm2 input.
3 => Output = ON if event occur on alarm1or alarm2 inputs.
4 => Output = ON if ALARMTEMP level is reached. (Working as a low limit on/off thermostat with a 0.5°C hysteresis value)
No SMS temperature alarm will be sent for this choice

HEARTBEAT : Sets how often the GSM-controller shall automatically send status to your mobile phone.
0 => this function is off.
1 to 9999 => Value in hour (9999 hours, 416 days)

SMSCOUNTER : Number of SMS sent by the GSM controller (Reset after 99 pcs)

PHONE : +xxxxxxxxxxx Sets which mobile phone number the GSM-controller shall send SMS-message to, when alarm occurs.
After the "first start" sequence the GSM controller will save automatically the phone number of the mobile use for this sequence.
A complete international mobile phone number must be used.

For changing this configuration: Forward all the SMS-texts back to the GSM-controller, with some of the parameters changed to other digit/characters as above.

⚠
- Don't forget your new Password if it was changed, before sending a new request to the GSM controller.
- In case of you have lost your password, use the reset function by pressing on the derogation button during 40 seconds. Beware in this case all your adjustments will be lost and loaded with factory values.

8 Special Functions

8.1 Cancel previous configuration command

If you have made a bad operation, you will have the possibility to erase the actual "SMS configuration" and come back to the previous, by sending a SMS with your password followed by the text **"CANCEL"** (Ex with the default password **"PASS CANCEL"**)
Then to inform you, you should receive a new SMS with the last configuration.

8.2 Factory setting function

You will have two possibilities to reload your GSM module with all factory settings.

1. By sending a SMS with your password followed by the text **"RS"** (Ex with the default password **"PASS RS"**)
   Then to inform you, you should receive a new SMS with the last configuration.
2. By hardware procedure, by pressing the derogation button during 40 seconds (to be use only when you have lost your password)

8.3 Alarm inputs (SMS and Function)

Enabling or disabling the alarms on Inputs 1 & 2 by 5 seconds pressing on the derogation button.

Sequence for SMS sending if events occurs on Input 1 or 2:
The maximum number of SMS sent by day for events on Input 1 and 2 is limited at 5 (For 5 events), after only 1 SMS by 24H will be sent.

8.4 Power supply supervising function

Following the type of your GSM controller, you will have the possibility to supervise the power supply with SMS alert function. (Check if your GSM controller is equipped with a battery)

First of all your GSM module will need to be powered for minimum 24H to have the full capacity of charge.

Then the supervising function is automatically activated and it works in the following way:
If the power supply is lost since 3 minutes, your GSM controller will send an alert SMS plus the status to your mobile phone.
New status SMS will be sent to your mobile phone when the power supply is back.

Alert SMS

WARNING !
Power supply failure

PASS

TEMP:
INT: xx
EXT: xx

ALARM1:x
ALARM2:x
OUTPUT=x

Status SMS

GSM Ok!
Power is back

PASS

TEMP:
INT: xx
EXT: xx

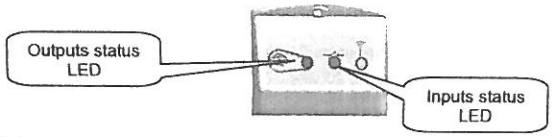
ALARM1:x
ALARM2:x
OUTPUT=x

9 Technical characteristics

Measured temperature accuracy:	1°C
Operating temperature:	0 - 50 °C
Transport temperature	-20 – 50°C
Electrical protection:	Class II – IP 20
Supply voltage:	100-240Vac 50-60Hz / 9Vdc 0.67A (Adaptor supplied) Power Consumption ~3VA
SIM card (not included)	Slot for a normal open SIM-card (without PIN code) SIM card (3V) or USIM card (1.8V)
Control settings	via GSM/SMS from a standard mobile phone Slot for a normal open SIM-card
Relay output	potential free contact 1 RT type with maximum power rating 5A / 250Vac
Alarm inputs	2 Normally closed free contact inputs
External Sensor	NTC type 10kΩ at 25°C (Supplied)

10 Troubleshooting and solution

After initialisation period your GSM module will display the result of the Auto check function, by signalling on the LED the default or error detected.
The initialising period is showed by the 2 Status Inputs and output) blinking LED (alternatively Green / Red).



Status of the LED after initialising period:

Outputs status LED	Inputs status LED	Default	Solution
OFF	RED blinking	SIM card inserted but locked by PIN code.	Remove the PIN code security function on a GSM mobile.
RED Fix	OFF	SIM card unlocked but not ready yet.	- Following the network this period can take few minutes.
RED blinking	RED blinking	No SIM card detected	- Check the correct insertion of the SIM card - Clean the contact of the SIM card. - Check the SIM card on a GSM mobile - Contact your seller.
Blinks RED	RED Fix	The GSM is not registered to a GSM network	- Check if the SIM card is available on the network detected.
Blinks green	Blinks green	Internal GSM module error	- Contact your seller

11 Annexes (corresponding value for External sensor)

⚠ To be checked with an ohmmeter with sensor unplugged.

Temperature (°C)	Resistance value (Ohm)	Temperature (°C)	Resistance value (Ohm)
-20°C	~94 kΩ	40°C	~5,3 kΩ
-10°C	~54 kΩ	50°C	~3,6 kΩ
0°C	~32 kΩ	60°C	~2,5 kΩ
10°C	~20 kΩ	70°C	~1,8 kΩ
20°C	~12,5 kΩ	80°C	~1,3 kΩ
30°C	~8 kΩ		