OPUS Temperatur Controller Type G 8245 2574

Dupline®
Fieldbus | Installationbus

- Dupline® Temperature Controller with display
- Display current room temperature
- Display outdoor temperature
- Turn on/off heating and cooling
- Set wanted room temperature
- Energy Save through night setback temperature
- Channel Programming using GAP 1605

Product Description

G8245 2574 is a temperature controller with a display, 4 user input buttons and 2 LEDs for indication of heat/cool on/off state. The temperature controller is designed for controlling heating and/or cooling in a single room, with continuous display of current room temperature. It is possible to switch between heating control and cooling control, but these two functions cannot be simultaneously active.

Other features with the Temperature Controller are: Show current outdoor temperature, set the wanted room temperature for both normal mode and night setback, turn on/off heating, cooling and night setback. The temperature controller must be used with a Dupline® Master Generator type G3800 xxxx. The temperature controller is part of the Dupline® "Smart House" building automation concept.
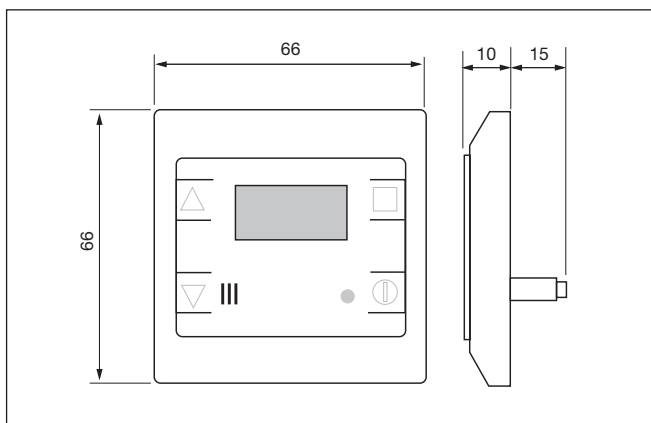
Type Selection

Supply	Colour	Ordering no.
By Dupline®	White	G 8245 2574

Supply Specifications

Power supply	Supplied by Dupline®
Consumption	
LED OFF	< 0.5 mA
LED ON	< 1.2 mA

Dimensions

Ordering Key

G 8245 2574

Type: Dupline®
Opus housing
Transmitter
2 channels
5 inputs
Input type

General Specifications

Channel programming	By GAP 1605
No. of channels	2 Needed + 3 Optional
Housing	LK OPUS
Environment	
Degree of protection	IP 20
Operating temperature	0 - 50 °C (32 - 122°F)
Storage temperature	-20 - 70°C (-4 - 158°F)
Humidity (non condensing)	20 - 80%
Weight	23 g
Dimensions	
Opus	66 x 66 x 10 mm
Max. wire in terminals	Max. 2 x 0.75 mm²

Input Specifications

Sensor	1 integrated temperature sensor
Range	0 - 50 °C (32 - 122°F)
Precision	± 1°C

Specifications are subject to change without notice (02.10.2007)
Dupline® is a registered trademark. A product of the CARLO GAVAZZI Group

1

Mode of Operation

Channel Programming

Using the GAP 1605 programming unit, each of the 5 channels on the Temperature Controller can be assigned any address between A1 and P8. The programming socket can be accessed by removing the front of the housing. The allocation of the channels are as follows:

I/O	Description
	Needed I/O's
1	DataLink Data Channel input/output Split I/O
2	DataLink Synchronization Channel input
	Optional I/O's
3	Analink Temperature output.
4	LED for Heat on/off indication (RED) input
5	LED for Cooling on/off indication (BLUE) input

*** Note:** If a description of the heating/cooling outputs is required, please consult the manual for MCG G3800 xxxx. See paragraph 2.3.5*
Please note that the unit can be programmed to both cooling and heating, but the mode required has to be selected on the display. For instance, cooling control can be selected during the sommer and heating control during the winter.

*** Note:** Not programming the 2 optional channels for Heat and Cooling LEDs, will not make the LEDs inactive they are just controlled by the Temperature Controller and will have slower reaction to changes in Heat/Cooling state.*

Symbol description:

In the display the following five symbols are used.

▲ – Tree symbol, indicates that outdoor temperature is currently shown in the display.

〰 – Heat symbol, indicating that a heat application is currently selected.

❄ – Frost symbol, indicating that a cooling application is currently selected.

☀ – Sun symbol, indicating that the current application is running in normal mode.

🌙 – Moon symbol, indicating that the current application is running in night setback mode.

Starting up

When the Temperature Controller is connected to the Dupline® Bus the Display digits will start flashing. The display will continue to flash until a complete status have been received from the Master generator, this will take approximately 1 min. When the Temperature Controller has received a complete status, the display will stop flashing and show the current application status and room temperature.

Function description

After starting up has finished, normal operation will commence. In normal operation (Normal mode) the user has the following options:

Button		Description
□	Square	Show outdoor temperature.
○	Circle	Enter turn on/off menu.
△	Arrow up	Enter adjust temperature set point menu.
▽	Arrow down	Enter adjust temperature set point menu.

Outdoor temperature option

When pressing the square button the current outdoor temperature is shown in the display. A tree symbol is also shown in the display to indicate outdoor temperature. The Temperature Controller will automatically go back to show current room temperature (Normal mode) after the buttons are all idle for approximately 5 sec, or the user can single press the circle button to exit.

*** Note:** For this option to work correct an outdoor temperature sensor must be connected to the Dupline® bus and the option must be set up in the Master generator. If this is not done the display will show 60.0 when this option is selected.*

Turn on/off menu

When pressing and holding the circle button for ½ sec. the Turn on/off menu is entered, in this menu there are four possibilities:

1. Turn on/off Heating (Heat symbol in the display).

2. Turn on/off Night setback for Heating applications (Sun and Moon symbols in the display).

3. Turn on/off Cooling (Frost symbol in the display).

4. Turn on/off Night setback for Cooling applications (Sun and Moon symbols in the display)

When entering this option the display will show with text what can be changed:

Nr.	Text in display	Description
1	HEAt	Heating can be Turned on/off.
2	HES (Heat energy save/night setback)	Heat night setback can be Turned on/off.
3	COOL	Cooling can be Turned on/off.
4	CES (Cool energy save/night setback)	Cool night setback can be Turned on/off.

To step through the four above possibilities single press the square button.
The display will also show the current state of the possibility selected for turning on/off, with the symbols to the right in the display, if a symbol is shown the possibility is currently on.!
To turn on something single press the arrow up button, to turn off something single press the arrow down button.
Any changes made will take effect when all buttons are idle for approximately 10 sec. or when the user single presses the circle button.

*** Note.** If a heating application is selected in the Master*

Dupline®
Fieldbus | *Installationbus*

Mode of Operation (cont.)

Generator it's only possible to turn on/off heat and night set-back for heat. The same if a cooling application is selected it's only possible to turn on/off cool and night setback for cooling.
** Note. When a cooling application is running, cool will **not** be turned on automatically. The user must turn on the cooling by entering the Turn on/off menu.*

Adjust temperature setpoint menu.
When pressing the arrow up or the arrow down button the adjust temperature setpoint menu is entered, in this menu there are four possibillites:
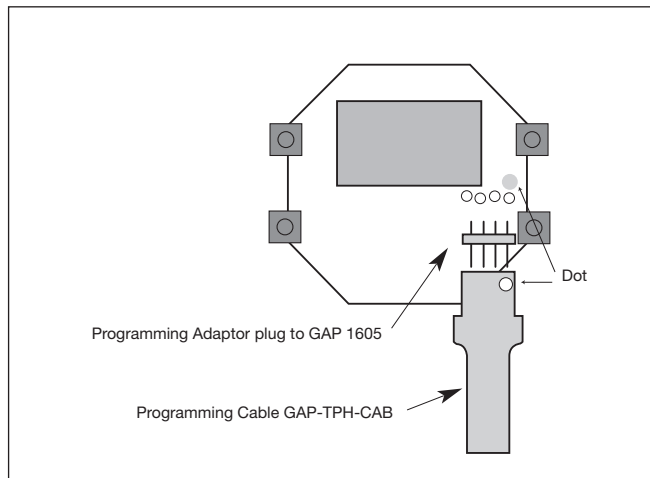
1. Adjust the Heat set point (The wanted daytime room temperature, heat and sun symbol shown).

2. Adjust the Night setback Heat set point (The wanted night time room temperature, heat and moon symbol shown).

3. Adjust the Cool set point (The wanted daytime room temperature, frost and sun symbol shown).

4. Adjust the Night setback Cool set point (The wanted night time room temperature, frost and moon symbol shown).

When entering this menu possibility 1 will always be shown first, unless a cooling application is running then the first possibility will be 3. For example if a heat application is running and it's day time the heat and sun symbols will start to flash. To adjust the selected setpoint press the arrow up or arrow down button, the temperature will be adjusted 0,1 °C per button activation, press and hold the button for auto increment/decrement. To change another of the four possibilities single press the square button, to cycle through the 4 possibilities. Any changes made will take effect when the buttons are all idle for approximately 10 sec, or when the user single presses the circle button.

* Note: If a heating application is selected in the Master generator it's only possible adjust heat set point and night setback heat set point. The same goes for a cooling application.

Wiring Diagram

Dot

Programming Adaptor plug to GAP 1605

Programming Cable GAP-TPH-CAB

Accessories

Programming cable
to GAP 1605   GAP-TPH-CAB

Specifications are subject to change without notice (02.10.2007)
Dupline® is a registered trademark. A product of the CARLO GAVAZZI Group

3