

B5X-TEMDIS

smart-house temperature controller with display

Developed to fit into wall socket from Elko, Gira and Jung

Shows current room temperature

Shows outdoor temperature

Turns on/off heating and cooling

Set wanted room/floor temperature

Energy Save through night setback temperature

Channel Programming using BGP-COD-BAT

Optional floor sensor

Delivered with pre-programmed address on I/O 2

Delivered with both white and black pushbutton covers

Non-activated inputs and backlight indicated by white light

White LED and white backlight can be de-activated by internal dip switches

Activated inputs indicated by blue light



GENERAL SPECIFICATIONS

Channel programming	By BGP-COD-BAT and special cable: GAP-TPH-CAB. After mounting, reprogramming can be done by removing the slim pushbutton cover and connecting the cable to the connector on the back of the switch element.
No. of channels	2 needed + 3 Optional
Channel assignment	I/O 1: Not programmed I/O 2: Pre-programmed to address B2 I/O 3: Not programmed I/O 4: Not programmed I/O 5: Not programmed

Enclosure	Eunica 55 x 55 mechanics
Environment	Degree of protection IP 20 Pollution degree 3 (IEC 60664) Operating temperature 0° to +50°C (32° to +122°F) Storage temperature -20° to +70°C (-4° to +158°F)
Humidity (Non condensing)	20 - 80%
Weight	33 g
Dimensions	Eunica (WxHxD) 55 x 55 x 25 mm
Max. wire in terminals	Max. 2 x 0.75 mm ²

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Consumption (typical)	Activated (guidelight OFF) 1.5 mA Activated (guidelight ON) 2 mA Not activated (guidelight OFF) 0.6 mA Not activated (guidelight ON) 1.1 mA

TYPE SELECTION

Supply	By smart-house bus
Ordering no.	B5X-TEMDIS
	Delivered with both white and black pushbutton covers. Frame not included. Floor sensor BSO-TEMDIG is not included.

INPUT SPECIFICATIONS

Sensor	1 integrated temperature sensor
Range	0 - 50°C (32 - 122°F)
Precision	± 1°C
Floor sensor	(not included)
Temperature range	0 - 50°C (32 - 122°F)
Cable length	4 m
Cable consists of 4 wires:	
Brown	Connect to "+" on Temperature controller
White	Connect to "c" on Temperature controller
Yellow	Connect to "d" on Temperature controller
Green	Connect to "L" on Temperature controller
See wiring diagram	

The floor sensor is an active 4-wire sensor and will only work together with the temperature controller unit.

Eunica Temperature Controller



Mode of Operation

Channel Programming

Using the BGP-COD-BAT 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
Temperature Control / Needed I/Os	
1	Split I/O
2	DataLink Synchronization input
Optional I/Os	
3	Analink room temperature output
4	Floor temperature Analink output
5	Floor temperature Alarm High temperature output

*** Note:** If a description of the heating/cooling outputs is required, please consult the manual for the smart-house controllers BH8-CTRLX-230, BH8-CTRLZ and BH8-CTRLG. 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 summer and heating control during the winter.

The temperature controller works with both floor sensor and Room sensor. It is possible to enter the smart-house controller software to change / program which sensor is used (or both), together with the Temperature controller.

The switch has two colours of LEDs: Non-activated (white LED). Activated (Blue LED). The white LED for both switches and display can be de-activated by two internal dipswitches.

Symbol description:

On the display the following five symbols are used.



– Temperature symbol 2, indicates that the outdoor temperature is currently shown on the display.



– Heat symbol, indicating that a heat application is currently selected. When the symbol is blinking, the unit is heating. When the symbol is steady, Heat mode is selected.



– Frost symbol, indicating that a cooling application is currently selected. When the symbol is blinking, the unit is cooling. When the symbol is steady, Cooling mode is 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.

Note: When the temperature controller is in "normal" mode, the user is able to override this mode by selecting "night setback" (☾) in the option menu.



– Frost protection

Starting Up

When the temperature controller is connected to the smart-house bus, the display digits will start flashing. The display will continue to flash until a complete status have been received from the smart-house controller. 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 or floor temperature.

Function Description

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

Button	Description
	Show outdoor temperature
	Enter turn on/off menu
+	Enter adjust temperature set point menu
–	Enter adjust temperature set point menu

Outdoor temperature option

When pressing the button the current outdoor temperature is shown in the display. A symbol is also shown on the display to indicate outdoor temperature. The temperature controller will automatically go back to show the current room temperature (Normal mode) after the buttons have all been idle for approximately 5 seconds, or the user can single press the to exit.

***Note:** For this option to work correctly, an outdoor temperature sensor, BSI-TEMANA, must be connected to the smart-house bus and the option must be set up in the smart-house controller. If this is not done, the display will show 60.0 when this option is selected.

Option Menu

When pressing and holding the button for 1/2 sec., the option menu for turning on/off heat, cooling etc. is selected. 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 the option menu, the display will show with text what can be changed:

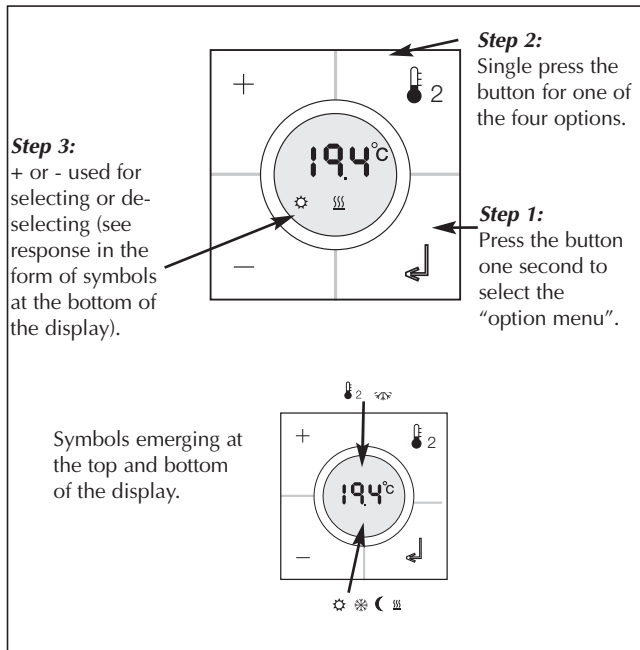
Nr.	Text in display	Description
1	HEAT	Heating can be turned on/off.
2	HES (Heat energy save/night setback)	Heat night setback can be turned on/off.
3	COOL	Cooling can be turned on/off.
4	CES (Cool energy save/night setback)	Cool night setback can be turned on/off.

To step through the four above possibilities single press the button.

Eunica Temperature Controller



Option Menu (cont.)



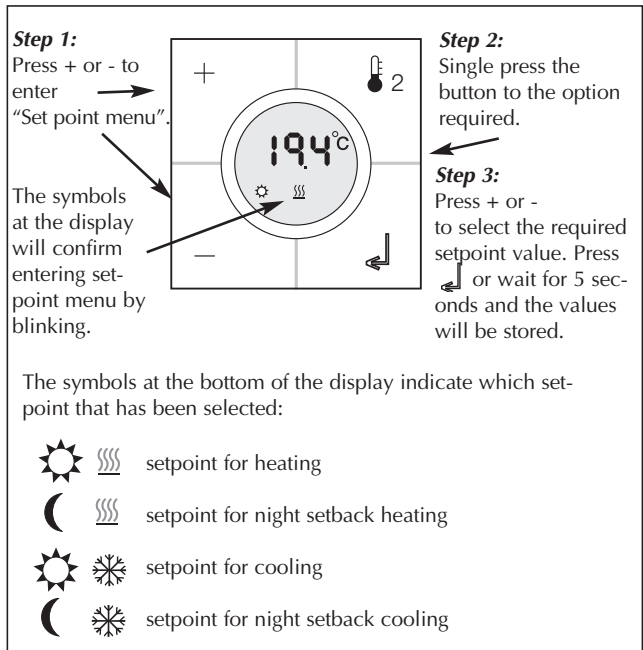
Any changes made will take effect when all buttons have been idle for approximately 10 seconds or when the user single presses the button.

Before any selection in the option mode can be made, the function has to be configured in the program in the smart-house controller first.

* Note: If a heating application is selected in the smart-house controller, it is only possible to turn on/off heat and night setback for heat. The same applies if a cooling application is selected. In this case it is only possible to turn on/off cool and night setback for cooling.

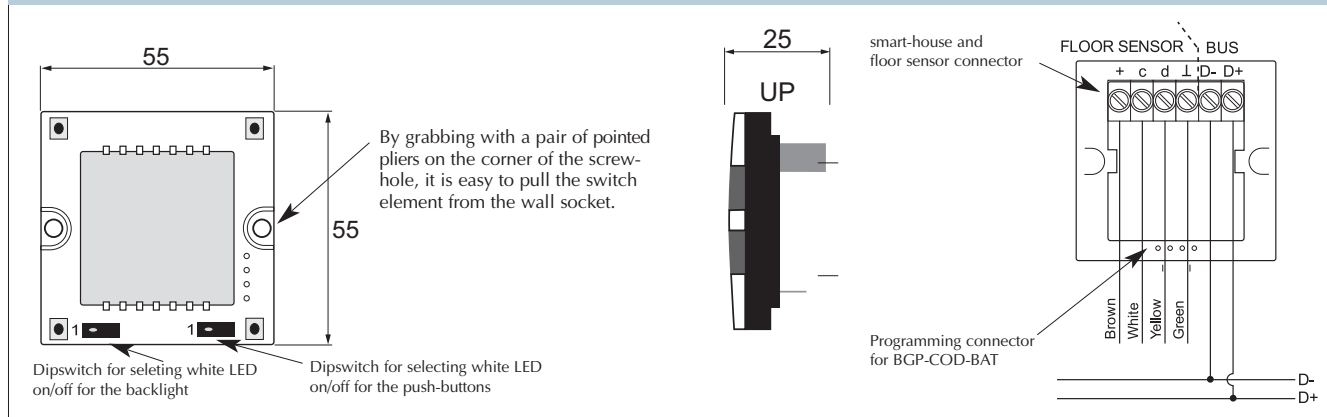
* Note: When a cooling application is running, cool will not be turned on automatically. The user must turn on the cooling by entering the turn on/off menu.

Setpoint Menu



* **Note:** If only a heating application is configured in the smart-house controller, it is possible to select only heating and night setback in the temperature controller. If both heating and cooling is configured in the smart-house controller, both modes can be accessed in the temperature controller.

WIRING DIAGRAM / dimensions



ACCESSORIES

Programming cable to BGP-COD-BAT
Floorsenso

GAP-TPH-CAB
BSO-TEMDIG