BFW, BOW, BEW, BEL, BSI, B5X, B4X
Технические характеристики

Aurora Temperature Controller

B4X-TEMDIS

smart-house temperature controller with display

Developed to fit into wall socket from Fuga, NICO an Bticino

Shows current room temperature

Shows outdoor temperature

Turns on/off heating and cooling

Set wanted room temperature

Energy Save through night setback temperature

Channel Programming using BGP-COD-BAT

The use of floor sensor is optional

Delivered with pre-programmed address on I/O 2

Delivered with both white and charcoal grey pushbutton covers

Non-activated inputs and backlight indicated by orange light

Orange LED can be de-activated by an internal dip switch

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 pull the switch element with a a pair of pointed pliers (see drawing next page), and connect the cable to the connector on the back of the switch element.		I/O 4: Not programmed I/O 5: Not programmed
		Enclosure	Aurora 44 x 44 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)
No. of channels	2 needed + 3 Optional	Humidity (Non condensing)	20 - 80%
Channel assignment	I/O 1: Not programmed	Weight	50 g
	I/O 2: Pre-programmed to address B2	Dimensions	
		Aurora (WxHxD)	44 x 44 x 26 mm
	I/O 3: Not programmed	Max. wire in terminals	Max. 2 x 0.75 mm²

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	Ordering no.
By smart-house bus	B4X-TEMDIS Delivered with both white and charcoal grey 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 "⊥" 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.

Aurora Temperature Controller

WIRING DIAGRAM / DIMENSIONS

NOTE: When using the Fuga type use the standard screws from Fuga to attach the switch element to the wall socket. Be careful not to overtighten.
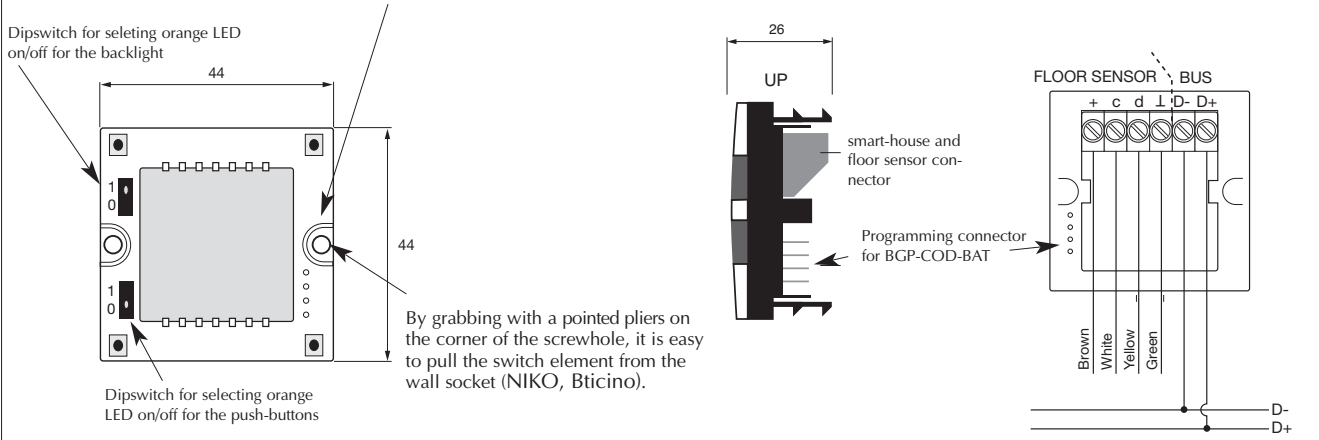
Dipswitch for seleting orange LED on/off for the backlight

44

44

1
0

1
0

Dipswitch for selecting orange LED on/off for the push-buttons

By grabbing with a pointed pliers on the corner of the screwhole, it is easy to pull the switch element from the wall socket (NIKO, Bticino).

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UP

smart-house and floor sensor connector

Programming connector for BGP-COD-BAT

FLOOR SENSOR , BUS

+ c d ⊥ D- D+

Brown
White
Yellow
Green

D-
D+

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
	Needed I/O's
1	DataLink Data Channel
2	DataLink Synchronization Channel input
	Optional I/O's
3	Analink Temperature output.
4	Floor thermostat Analink output
5	Floor thermostat 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 sommer 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 (orange LED). Activated (Blue LED). The orange 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.

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

– Frost protection

ACCESSORIES

Programming cable to BGP-COD-BAT   GAP-TPH-CAB
Floorsensor   BSO-TEMDIG
Frame baseline (Fuga only)   white   40417
                                                  charcoal grey 40460-1

Eunica Temperature Controller

B5X-TEMDIS

smart-house

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 mm2

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	Ordering no.
By smart-house bus	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 "⊥" 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

smart-house

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 sommer 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
2	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 ₂ button the current outdoor temperature is shown in the display. A ₂ 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 ↵ button 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 ₂ button.

Option Menu (cont.)

Step 2:
Single press the button for one of the four options.

Step 3:
+ or - used for selecting or de-selecting (see response in the form of symbols at the bottom of the display).

Step 1:
Press the button one second to select the "option menu".

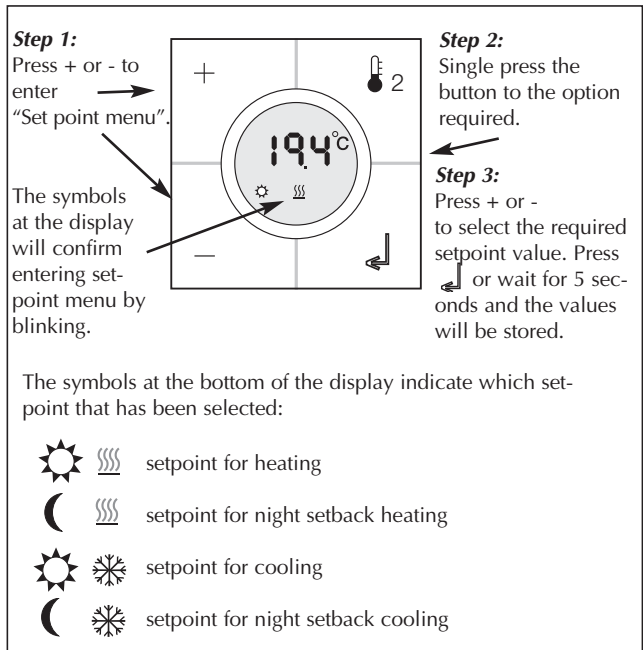Symbols emerging at the top and bottom of the display.

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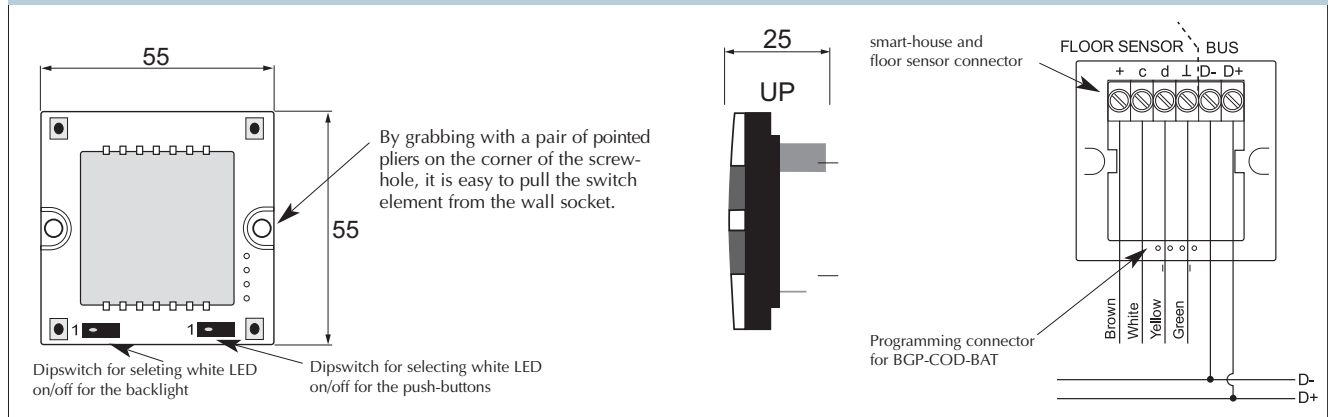
* Note: When a cooling application is running, cool will not be turned on automatically. The user must turn on the cooling by entering the turn on/off menu.

Setpoint Menu

Step 1:
Press + or - to enter "Set point menu".

The symbols at the display will confirm entering set-point menu by blinking.

Step 2:
Single press the button to the option required.

Step 3:
Press + or - to select the required setpoint value. Press or wait for 5 seconds and the values will be stored.

The symbols at the bottom of the display indicate which set-point that has been selected:

☀ 〰 setpoint for heating

☾ 〰 setpoint for night setback heating

☀ ❄ setpoint for cooling

☾ ❄ setpoint for night setback cooling

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

55

55

25

UP

By grabbing with a pair of pointed pliers on the corner of the screw-hole, it is easy to pull the switch element from the wall socket.

Dipswitch for seleting white LED on/off for the backlight

Dipswitch for selecting white LED on/off for the push-buttons

smart-house and floor sensor connector

FLOOR SENSOR   BUS

+ c d ⊥ D- D+

Brown   White   Yellow   Green

Programming connector for BGP-COD-BAT

D-
D+

ACCESSORIES

Programming cable to BGP-COD-BAT
Floorsenso

GAP-TPH-CAB
BSO-TEMDIG

Temperature Sensor

BEL-TEMANA

AnaLink temperature transmitter with built-in Pt 1000 sensor

Temperature range: -30°C to +60°C (-22° to +140°F)

Uses only 1 channel

Channel coding by BGP-COD-BAT

Easily mountable

Supplied by smart-house

CARLO GAVAZZI

GENERAL SPECIFICATIONS

Channal programming	By BGP-COD-BAT	Shock	15 G (11 ms)
		Vibration	2 G (6 to 55 Hz)
Channal assignment	1 channel, freely program-		
mable		**Connection**	
		Screw terminal	Pin 1: D+
Environment			Pin 2: D–
Degree of protection	IP 20		
Operating temperature	-30° to +60°C (-22° to	**Housing**	
+140°F)	Storage temperature	Material	Housing	ABS
-55° to +85°C (-67° to +185°F)			Plug	Nylon
		Colour	Off-white
Mechanical resistance		Dimensions (H x W x D)	84 x 84 x 34 mm

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Rated operational current	typ. 800 µA

TYPE SELECTION

Supply	Ordering no.
By smart-house	BEL-TEMANA

DIMENSIONS
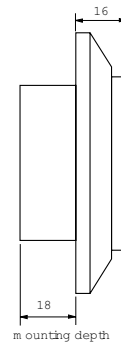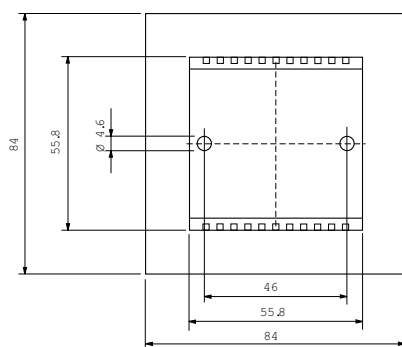
ELKO Temperature Controller
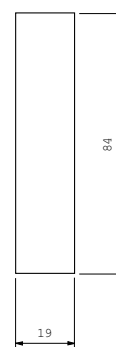
BEW-TEMDIS

smart-house

Smart-house temperature controller with display
Display current room temperature
Display outdoor temperature
Turn on/off heating and cooling
Set wanted room/floor temperature
Energy Save through night setback temperature
Channel Programming using BGP-COD-BAT
The use of floorsensor is optional
Delivered with pre-programmed address on I/O 2

GENERAL SPECIFICATIONS

Channal programming	By BGP-COD-BAT
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
Housing	ELKO

Environment	
Degree of protection	IP 20
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	50 g
Dimensions	
ELKO	86 x 86 x 24 mm
Max. wire in terminals	Max. 2 x 0.75 mm²

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Consumption	
LED OFF	< 0.5 mA
LED ON	< 1.2 mA

INPUT SPECIFICATIONS

Sensor	1 integrated temperature sensor
Range	0 - 50°C (32 - 122°F)
Precision	± 1°C
Floor sensor	
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 "⊥" on Temperature controller

"See wiring diagram"

The sensor is an electrical sensor and will only work together with the temperature controller unit.
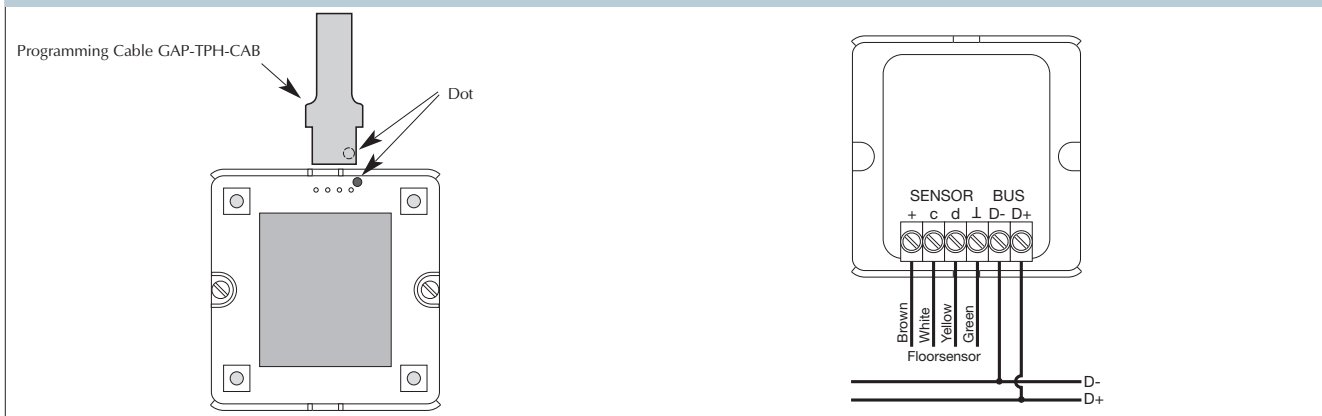
TYPE SELECTION

Supply	Colour	Ordering no.
By smart-house	White	BEW-TEMDIS
	Grey	BEG-TEMDIS
	Antrasit	BEA-TEMDIS

WIRING DIAGRAM

ELKO Temperature Controller

smart-house

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
	/ Needed I/Os
1	Temperature Control / Split I/O
2	DataLink Synchronization input
	Optional I/Os
3	Room temperature Analink 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 controller BH8-CTRLZx-230. 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.

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.

Symbol Description:

On the display the following six 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
2	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 2 button the current outdoor temperature is shown in the display. A 2 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 ⏻ button 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 ½ 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 2 button.

ELKO Temperature Controller

Option Menu (cont.)

Step 3:
+ or - used for selecting or de-selecting (see response in the form of symbols at the bottom of the display).

Step 2:
Single press the button for one of the four options.

Step 1:
Press the button 1 second to select the "option menu".

Symbols emerging at the top and bottom of the display.

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, a corresponding program in the smart-house controller must be programmed 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

Step 1:
Press + or - to enter "Set point menu"

The symbols at the display will confirm entering set-point menu by blinking.

Step 2:
Single press the button to the option required.

Step 3:
Press + or - to select the required setpoint value. Press ⏻ or wait for 5 seconds and the values will be stored.

The symbols at the bottom of the display indicate which setpoint that has been selected:

☀ ︳︳︳ setpoint for heating

🌙 ︳︳︳ setpoint for night setback heating

☀ ❄ setpoint for cooling

🌙 ❄ setpoint for night setback cooling

* 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.

DIMENSIONS
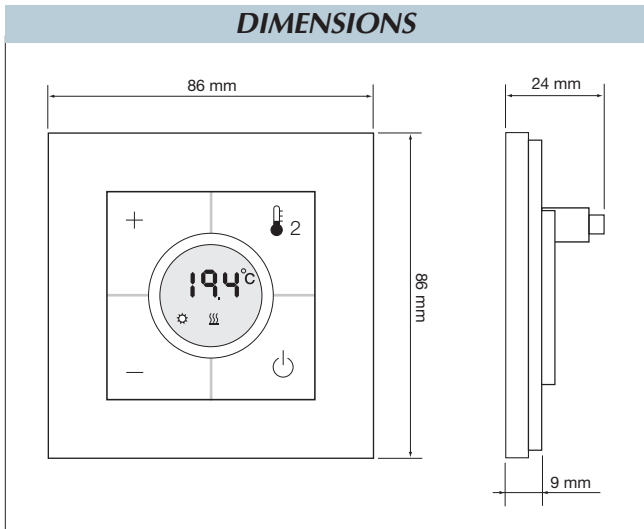
86 mm

24 mm

86 mm

9 mm

ACCESSORIES

Programming cable to BGP-COD-BAT   GAP-TPH-CAB
Floor sensor   BSO-TEMDIG

FUGA Temperatur Controller

BFW-TEMDIS

Smart-house 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 BGP-COD-BAT

GENERAL SPECIFICATIONS

Channal programming	By BGP-COD-BAT	**Humidity** (Non condensing)	20 - 80%
No. of channels	2 needed + 3 Optional	**Weight**	23 g
Housing	LK FUGA (no frame incl.)	**Dimensions**	
Environment		Fuga	50 x 50 x 11 mm
Degree of protection	IP 20		(no frame included)
Operating temperature	0° to +50°C (32° to +122°F)	**Max. wire in terminals**	Max. 2 x 0.75 mm^2
Storage temperature	-20° to +70°C (-4° to +158°F)		

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Consumption	
LED OFF	< 0.5 mA
LED ON	< 1.2 mA

INPUT SPECIFICATIONS

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

TYPE SELECTION

Supply	Colour	Ordering no.
By smart-house	White	BFW-TEMDIS

Frame not included

Dimensions

NOTE: Frame not included.

WIRING DIAGRAM
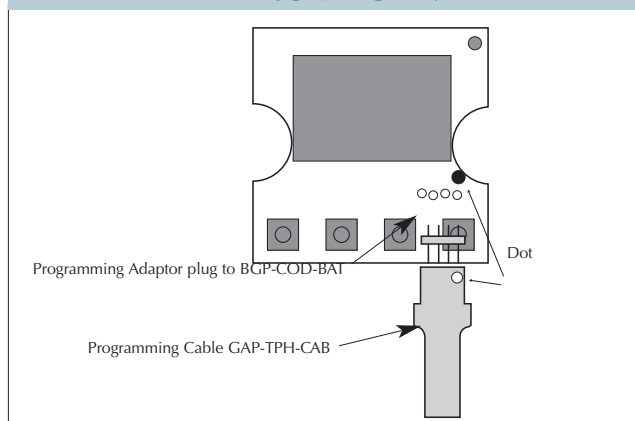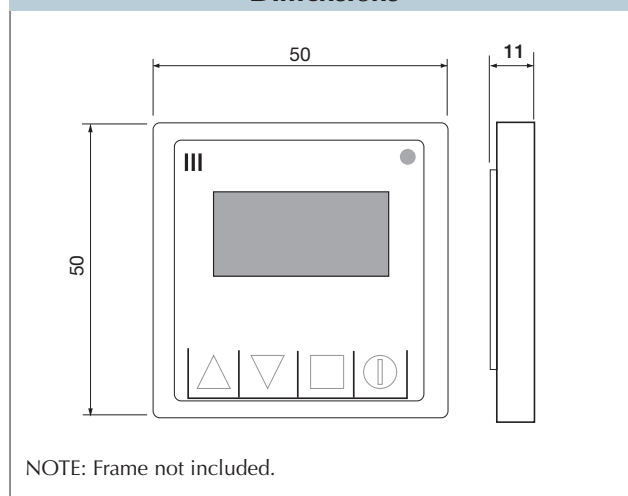
Programming Adaptor plug to BGP-COD-BAT

Dot

Programming Cable GAP-TPH-CAB

ACCESSORIES

Programming cable to BGP-COD-BAT		GAP-TPH-CAB
Frame Baseline	White	40417
	Grey	40414-1
	Charcoal Grey	40430-1

FUGA Temperatur Controller

smart-house

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
	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.

BFW-TEMTHE

Thermostat with built-in sensor
Temperature range: 10°C to +35°C (50° to +95°F)
Uses 3 channels
Heat on LED
Supplied by smart-house
Night set back: 4°C

GENERAL SPECIFICATIONS

Channel coding	By BGP-COD-BAT and special cable: GAP-TPH-CAB	**Humidity** (non condensing)	20 - 80%
		Weight	50 g
No. of channels	3	**Dimensions**	50 x 50 x 33 mm (including frame)
Enclosure	LKNES FUGA Mechanics		
Environment		**Max. wire in terminals**	Max. 4 x 0.75 mm2
Degree of protection	IP 20		
Pollution degree	3 (IEC 60664)		
Operating temperature	0 - 50 °C (32 - 122°F)		
Storage temperature	-20 - 70°C (-4 - 158°F)		

SENSOR SPECIFICATIONS

Sensor	KTY 1000 (built-in)	Night set back	4˚C
Temperature measuring range	10 to +35°C (50 to +95°F)	Time constant	Typ. 450 s (air flow = 0 m/s)
Temperature probe	KTY 81 (built-in)		
Accuracy	± 1°C at 22.5˚C		Typ. 350 s (air flow = 1 m/s)
Hysteresis	± 0.25˚C		

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Consumption	
LED off	< 1.3 mA
LED on	< 2.3 mA

TYPE SELECTION

Supply	**Ordering no.**
smart-house supplied	BFW-TEMTHE

Frame not included

MODE OF OPERATION

If the temperature gets below the setting on the front plate scale, the thermostat starts transmitting on I/O 1. When the temperature gets above the setting, the transmission stops.
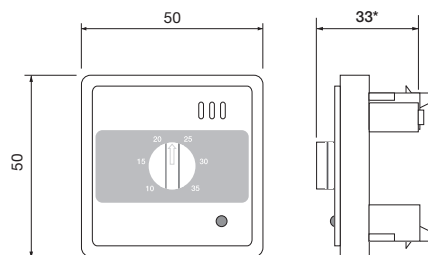
If the night set back channel on I/O 5 is activated, the thermostat automaticaly lowers the temperature 4°C.
The LED is placed on I/O 6 and indicates "Heat ON"

ACCESSORIES

Programming cable to BGP-COD-BAT		GAP-TPH-CAB
Frame Baseline	White	40417
	Grey	40414
	Charcoal Grey	40430-1

DIMENSIONS (mm)

50

33*

50

* + mounting clips

OPUS Temperatur Controller

BOW-TEMDIS

Smart-house 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 BGP-COD-BAT

smart-house

GENERAL SPECIFICATIONS

Channal programming	By BGP-COD-BAT
No. of channels	2 needed + 3 Optional
Housing	LK OPUS
Environment	
Degree of protection	IP 20
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	23 g
Dimensions	
Opus	66 x 66 x 10 mm
Max. wire in terminals	Max. 2 x 0.75 mm²

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Consumption	
LED OFF	< 0.5 mA
LED ON	< 1.2 mA

INPUT SPECIFICATIONS

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

TYPE SELECTION

Supply	Colour	Ordering no.
By smart-house	White	BOW-TEMDIS

Dimensions

WIRING DIAGRAM

Programming Adaptor plug to BGP-COD-BAT

Programming Cable GAP-TPH-CAB

ACCESSORIES

Programming cable to BGP-COD-BAT	GAP-TPH-CAB

OPUS Temperatur 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
	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.

Thermostat with Built-in Temperature Sensor

smart-house

BOW-TEMTHE

Thermostat with built-in sensor
Temperature range: 10°C to +35°C (50° to +95°F)
Uses 3 channels
Heat on LED
Supplied by smart-house
Night set back: 4°C

GENERAL SPECIFICATIONS

Channel coding	By BGP-COD-BAT and special cable: GAP-TPH-CAB	**Humidity** (non condensing)	20 - 80%
		Weight	50 g
No. of channels	3	**Dimensions**	66 x 66 x 33 mm (including frame)
Enclosure	LKNES OPUS Mechanics		
Environment		**Max. wire in terminals**	Max. 4 x 0.75 mm2
Degree of protection	IP 20		
Pollution degree	3 (IEC 60664)		
Operating temperature	0 - 50 °C (32 - 122°F)		
Storage temperature	-20 - 70°C (-4 - 158°F)		

SENSOR SPECIFICATIONS

Sensor	KTY 1000 (built-in)	Night set back	4˚C
Temperature measuring range	10 to +35°C (50 to +95°F)	Time constant	Typ. 450 s (air flow = 0 m/s)
Temperature probe	KTY 81 (built-in)		Typ. 350 s (air flow = 1 m/s)
Accuracy	± 1°C at 22.5˚C		
Hysteresis	± 0.25˚C		

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Consumption	
LED off	< 1.3 mA
LED on	< 2.3 mA

TYPE SELECTION

|	
Supply	**Ordering no.**
smart-house supplied	BOW-TEMTHE

MODE OF OPERATION

If the temperature gets below the setting on the front plate scale, the thermostat starts transmitting on I/O 1. When the temperature gets above the setting, the transmission stops.

If the night set back channel on I/O 5 is activated, the thermostat automaticaly lowers the temperature 4°C.
The LED is placed on I/O 6 and indicates "Heat ON"

DIMENSIONS (mm)

66

33

66

ACCESSORIES

Programming cable to BGP-COD-BAT	GAP-TPH-CAB
Opus wall mounting box	87-012
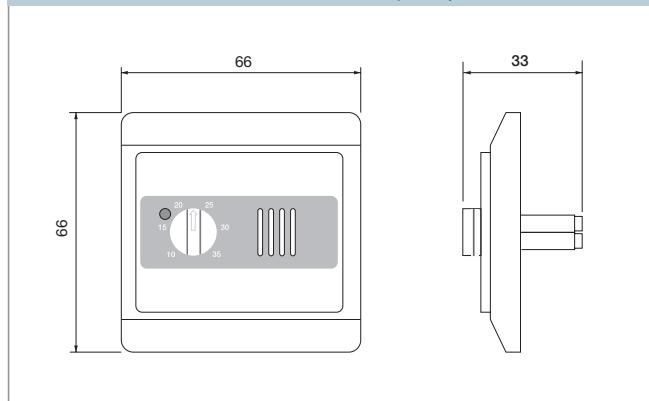
Transmitter with Built-in Temperature Sensor

BSI-TEMANA

CARLO GAVAZZI

- *AnaLink temperature transmitter with built-in Pt 1000 sensor*
- *Temperature range: -30°C to +60°C (-22° to +140°F)*
- *Uses only 1 channel*
- *Channel coding by BGP-COD-BAT*
- *BSI-TEMANA is delivered with a M12 plug*
- *BSI-TEMANAB is delivered with 2 m cable*
- *Easily mountable*
- *Supplied by smart-house*
- *Delivered with pre-programmed address on I/O 1*

GENERAL SPECIFICATIONS

Channel programming	By BGP-COD-BAT
Channel assignment	1 channel, freely programmable **Note:** The channel is pre-programmed to address B7

Environment

Degree of protection	IP 67
Operating temperature	-30° to +60°C (-22° to +140°F)
Storage temperature	-55° to +85°C (-67° to +185°F)

Mechanical resistance

Shock	15 G (11 ms)
Vibration	2 G (6 to 55 Hz)

Connection

BSI-TEMANA	M12 plug
BSI-TEMANAB	Cable: 3 x 0.34 mm^2

Housing		Flat-pack
Material	Housing	Polycarbonate
	Plug	Nylon
Colour		Light grey
Dimensions (l x w x d)		67 x 35 x 15 mm
Mounting		Direct wall mounting *)

*) To measure the air temperature, the sensor should not be wall-mounted, but should be exposed to air flow.

SENSOR SPECIFICATIONS

Sensor	PT 1000 (built-in)
Temperature measuring range	-30° to +60°C (-22° to +140°F)
Temperature probe	Typ. 800 µA
Accuracy	See curve below
Time constant	Typ. 450 s (air flow = 0 m/s)
	Typ. 350 s (air flow = 1 m/s)
Resolution	8 bits (approx. 0.35 K/LSB)

SUPPLY SPECIFICATIONS

Power supply	Supplied by smart-house
Rated operational current	Typ. 800 µA

CONNECTIONS

M12 plug with terminals	Pin 1: smart-house D+
	Pin 4: D-

Standard cable with M12 plug (IEC 60947-5-2)

with 4 wires:	Brown: smart-house (1) D+
	Black: (4) D
	Blue: (3) D-
	White: (2) D-
with 3 wires (1-3-4):	Brown: smart-house (1) D+
	Black: (4) D-
	Blue: (3) D-
with 2 wires (1-4)	Brown: smart-house (1) D+
	Blue: D-

Note: All wires must be connected.

ACCESSORIES
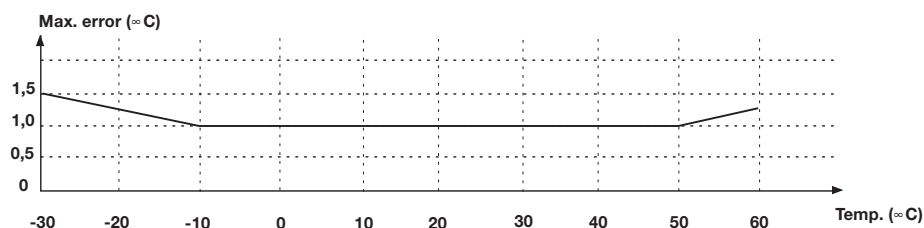
Coding cable	GTS-CAB
Angular M12 plug	CONG 1A-A2
Straight M12 plug	CONG 1A-A5
Cable with angular plug	CONG 1O-A2*
Cable with straight plug	CONG 1O-A5*

* Indicate length 2 m or 5 m.

DIMENSIONS

TYPE SELECTION

Supply	**Ordering no.**	
By smart-house	Without cable	BSI-TEMANA
	With cable	BSI-TEMANAB
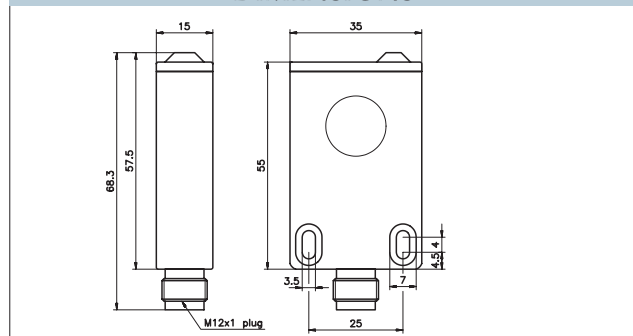
ACCURACY

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