iBKSW-BEE-XYZZ iBeeSwitch

KNX SWITCH

DESCRIPTION

BeeControls' iBeeSwitch is a wall-mounting room controller device with integrated temperature and humidity sensor.

iBeeSwitch allows to control heating and cooling operating modes with 2-points, Continuous and PWM thermostat functions. Each push buttons equipped with an RGB LED to show feedbacks or visualization and LCD models equipped with VA-Display technology which provides low energy cost and good view angle. Moreover, there is a blue navigation LED for orientation nightlight.

The device provides adjustable LCD backlight and LEDs intensity for user comfort. Product range has 9 different models with LCD and without LCD. All models can be programmable with same ETS database which provides efficient commissioning.

The device has 2 different parts which are BCU and Application Board. Downloaded firmware carried on Application part, BCU part only carries KNX communication and power generation.
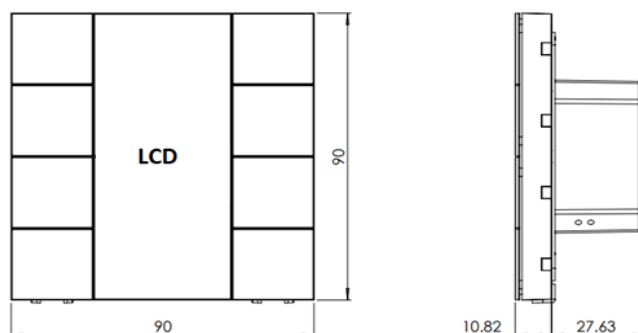
SAFETY INSTRUCTIONS

↗ The device should only be installed and put into operation by qualified electrician or authorized person.

↗ Failure to observe the instructions may cause damage to the device and result in fire and other hazards

↗ Do not connect the main voltage (230 VAC) or any other external voltages to any point of the KNX bus.

↗ Ensure that there is enough insulation and space between the 230 VAC voltage cables and KNX bus.

↗ Installation only in dry locations and on a 35 mm DIN rail (35 mm) and do not expose this device to direct sunlight, rain or high humidity.

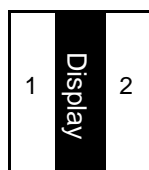↗ Do not use aerosol sprays, solvents or abrasives that might damage the device.

MAIN FUNCTIONAL CHARACTERISTICS

↗ Pushbutton has Switching, toggle, dimming, shutter/blinds, thermostat controls, scenes, value, 2 channels, step switching mode features.

↗ Locking feature available for each button and complete device.

↗ On/Off (2-points) and Proportional (Continuous or PWM) thermostat functions.

↗ Comfort, standby, economy and building protection operating modes.

↗ Manual or Automatic switching between Heat and Cool modes.

↗ Temperature measuring through integrated sensor with possibility of sending the value on change and periodically to the bus.

↗ Temperature (measured, external, setpoint, outdoor values as °C or °F), CO_2 Concentration (from bus), humidity operating modes, fan levels, on/off indicator, warnings and locking status are displayed on LCDs.

↗ Fan controller available with up to 5-speeds.

↗ All models can be programmable with same database.

↗ Relative humidity measuring through the integrated sensor with possibility of sending the value on the bus.

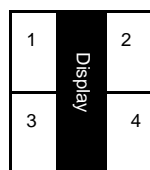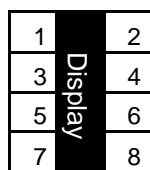↗ Threshold alarm define for temperature and humidity levels
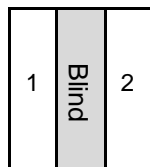
DIMENSIONS (mm)

MODELS WITH LCD:

| 1 | Display | 2 |

iBKSWB02-1YZZ

| 1 | Display | 2 |
| 3 | | 4 |

iBKSWB04-1YZZ

1	Display	2
3		4
5		6
7		8

iBKSWB08-1YZZ

MODELS WITHOUT LCD:

| 1 |

iBKSWB01-0YZZ

| 1 | Blind | 2 |

iBKSWB02-0YZZ

| 1 | Blind | 2 |
| 3 | | 4 |

iBKSW304-0YZZ

| 1 | 2 | 3 |
| 4 | 5 | 6 |

iBKSWB06-0YZZ

1	Blind	2
3		4
5		6
7		8

iBKSWB08-0YZZ

1	9	2
3		4
5	10	6
7		8
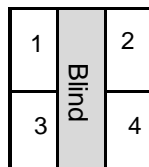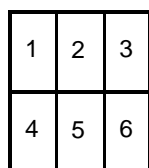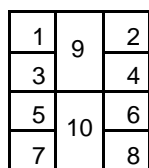
iBKSWB10-0YZZ

Coding standard:

iBKSW-B EE X Y ZZ	A : iBeeSwitch group
A B C D E	B : Button count
	C : LCD is available or not
	D : Material
	E : Color

Material and Color Options:

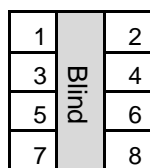| Materials	0: Plastic	1: Aluminum	2: stainless steal	3: Glass
Colors	01: Black	0: Natural	00: Natural	01: Black
	02: Glossy White	1: Black		02: White
	03: Matt White	06: Champagne		
	04: Anthracite Matt			
	05: Metallic Gray			

CONFIGURATION:

The assignment of the physical addresses as well as the parameterization is carried out with KNX Tool (ETS).

LCD DISPLAY:

↗ LCD display is located between the gangs. The symbols on LCD display are explained below. LCD backlight can be automatically switch down while not using the device or changeable from the bus. Temperature values, humidity and CO2 values can be switch between them with defined time to see all different values in LCD. Also there are 2 buttons located on up and down of the frame of LCD display.

↗ Each button has 2 different pushbutton functions which are under short press and long press events. Functions are On, Off, Toggle, Step Value Switching, Setpoint Control and Operating Mode Switcher. All thermostat functions can be controllable over LCD buttons. So, pushbuttons can be arranged for other controls.

Symbol	Meaning	Symbol	Meaning
	Temperature (in °C or °F), relative Humidity (in %), CO_2 concentration (from bus)		Heating (Symbol is flashing on heat active)
	Fan Control (5 Steps and Auto)		Cooling (Symbol is flashing on cool active)
	Internal temperature		Economy mode
	External temperature		Building protection
	Setpoint temperature		Comfort mode
	Alarm indicator		Standby mode
	Lock indicator		On/Off indicator

CONNECTION TO KNX BUS & PROGRAMMING:

The connection of the KNX bus line is made with the terminal block (black/red) included in delivery and inserted into the slot of housing.
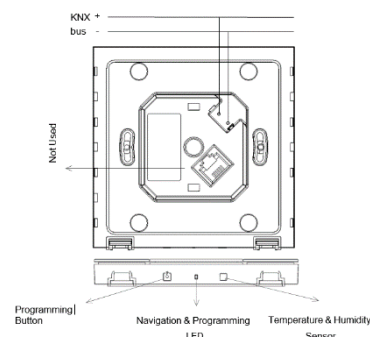
After pressing the buttons on the top left and bottom left corner of the device simultaneously, the programming LED is activated by pressing the button in the bottom right corner and LED's red light is on. Also, this can be done by pressing the programming button as another method, In the circumstances, the device is ready for programming.

MOUNTING:

iBeeSwitch's mounting steps are described below. The procedures are described in 2 main sections: Mounting of BCU and Mounting of Application board.

Mounting the BCU

The device is suitable for use in dry interior rooms and can only mounted on a standard sized round or square wall flush mounting box. The BCU should be mounted after the wall painting process is finished. Otherwise, the product's cosmetics may be damaged. The mounting steps are shown below.
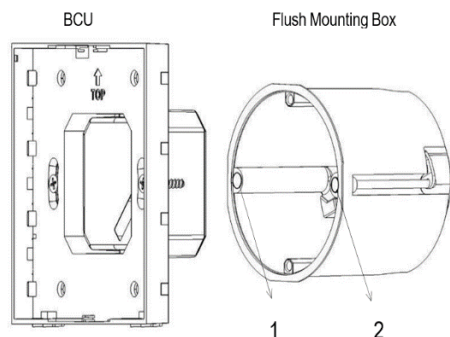
1. The wall flush mounting box installation whether is done properly should be checked.

2. iBeeSwitch's BCU part is placed to wall flush mounting box considering the "TOP" writing which is located on the upper side of the BCU must be demonstrated up direction.

3. The screws are guided through number "1" and number "2" holes that are shown above.

4. The BCU should be aligned by scales that is positioned

decently, then tighten the guided screws.

Mounting of the Application Board:

After a successful BCU mounting, iBeeSwitch's Application Board must be mounted on the BCU part. The mounting steps are described below.
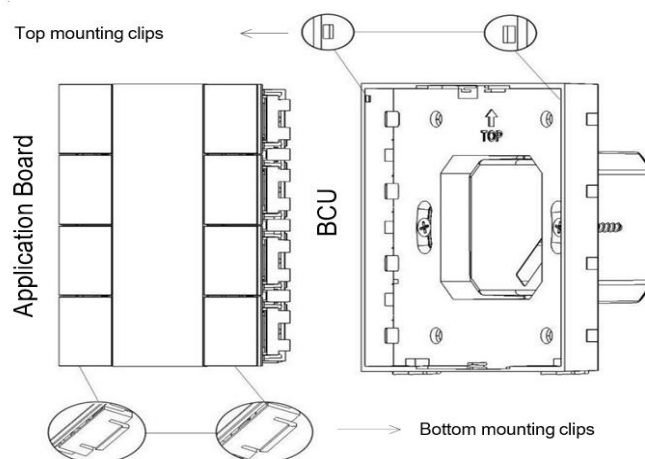
Communication connector on the Application board that will be attached to the BCU part.

When connection is succeeded, Application board is ready to be connected and it must be slightly approached to BCU.

Application Board should be held at an angle of approximately 45 degrees, after that its top side notches must be inserted to BCU top hidden mounting clips.

Lower side notches should be gently seated in the slot of the BCU side.

INTERNAL COMPONENT:
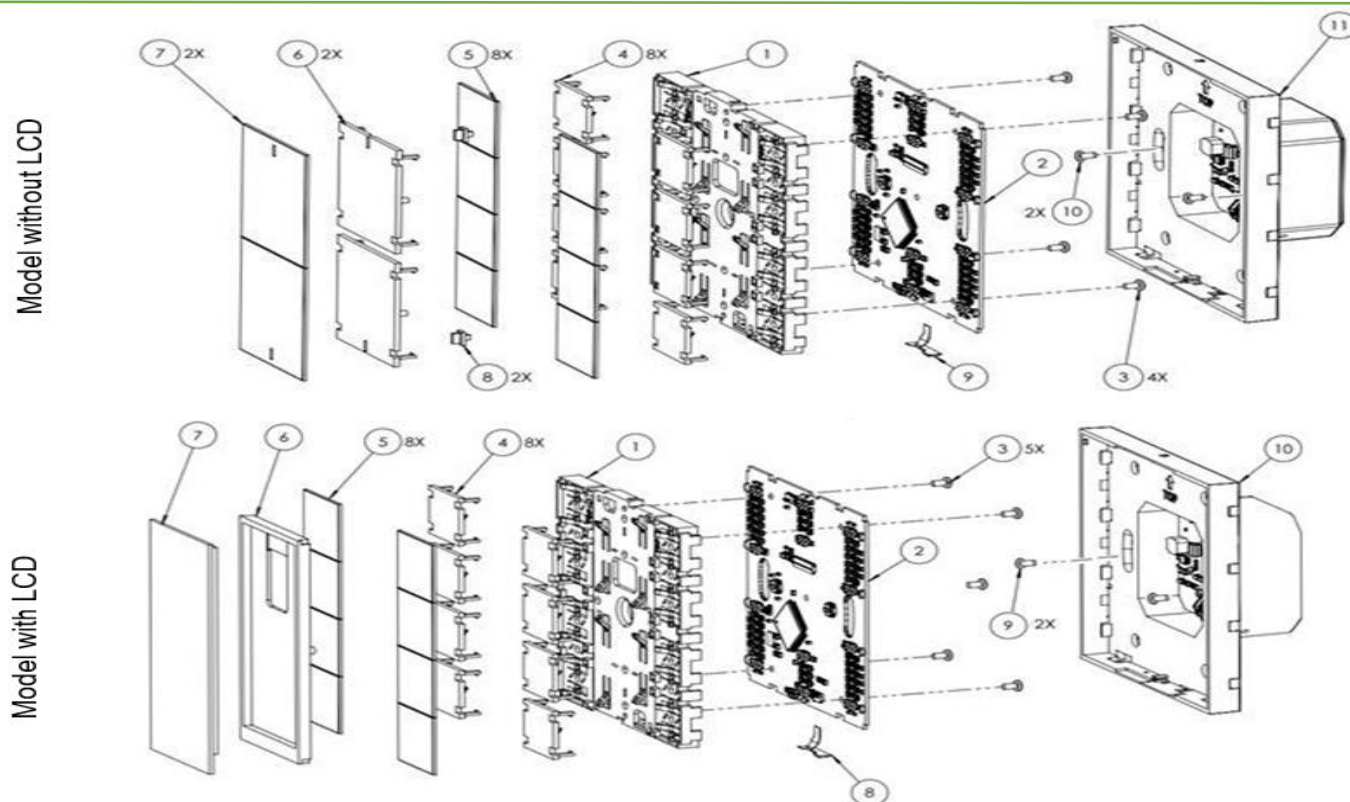
Model without LCD

Item No	Part Name	Description	Qty.
1	Front Cover	ABS-PC Front cover	1
2	Main Board	Hardware depends on models	1
3	Screw	M2x4 (mm)	4
4	Button Mechanism	ABS-PC button mechanism	8
5	Button Cover	Depends on the material selection	8
6	Button Mechanism	ABS-PC button mechanism	2
7	Button Cover	Depends on the material selection	2
8	Front Diffuser	LED diffuser	2
9	Sensor & LED	Temperature & humidity sensor, navigation & programming LED	1
10	Screw	M2x4 (mm)	2
11	BCU	Common for all models	1

Model with LCD

Item No	Part Name	Description	Qty.
1	Front Cover	ABS-PC Front cover	1
2	Main Board	Hardware depends on models	1
3	Screw	M2x4 (mm)	5
4	Button Mechanism	ABS-PC button mechanism	8
5	Button Cover	Depends on the material selection	8
6		ABS-PC plastic LCD cover	1
7	LCD Display	VA-Type LCD	1
8		Temperature & humidity sensor, navigation & programming LED	1
9	Screw	M2x4 (mm)	2
10	BCU	Common for all models	1

TECHNICAL DATA:

Electrical Parameters	
Device Name	IBKSWBEE-XYZZ
Buttons Number	1,2,3,4,5,6,7,8,9 &10
Power Supply	KNX BUS Voltage
Current consumption	iBKSW-B08-1YZZ: 18mA iBKSW-B01-0YZZ: 10mA
LED Indicators	1 x Blue Navigation LED 1 x Red Programming LED
Environmental parameters	
Operating Humidity	>90 RH
Storage Humidity	Up to 90%
Operating temperature	-10℃ ~ +70℃
Storage Temperature	-15°C ~ +90°C
Transport Temperature	-15°C ~ +100°C
Sensor	Temperature Sensor (±0.2°C sens.) Humidity Sensor (±2 %RH C sens.)
Device Parameters	
Protection type	IP20
Mode of communication	S-Mode
Mounting	(35m) Din-Rail
Flammability	Non-Flammable Product
Dimensions (W x H x D) mm	90 X 90 X 12
KNX Bus Connector	0.6 ~0.8 Ø, solid
Output connectors	Screw terminal, 2.5 mm2 stranded ~ 4 mm2 Solid
Tightening torque	Maximum 0.5 Nm
Available colors	White, Champagne, Metallic, Black & Light Gray
Warranty Period	18 months (Made in Turkey)

beeControls

MEMBER KNX

Product Models

Customized switch for GRMS

Customized switch for GRMS

Customized switch for GRMS

8 button with LCD,
metalic gray plastic

8 button with LCD,
natural stainless steel

8 button with LCD,
glossy white plastic

10 buttons champagne,
Aluminum

8 buttons with LCD,
Anthracite Matt plastic

6 buttons mat unbrushed,
natural Eloxal aluminum

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MEMBER KNX