

## iSwitch KNX Room Controller



<b>Product Code</b>	ITR3XX-XXXX
<b>Power Supply</b>	KNX Power supply
<b>Power Consumption</b>	ITR301-0XXX: 10 mA ITR308-1XXX: 18 mA
<b>Push Buttons</b>	Depends on model (1 to 10 button) 1 x KNX Programming button
<b>LED Indicators</b>	RGB LEDs for each button 1 x Blue Navigation LED 1 x Red Programming LED
<b>Sensors</b>	Temperature sensor (±0.2°C sens.) Humidity sensor (±2 %RH sens.)
<b>Interfaces</b>	VA-type low power LCD
<b>Commissioning Mode</b>	S-Mode
<b>Type of Protection</b>	IP 20
<b>Temperature Range</b>	Operation (-5°C...45°C) Storage (-20°C...60°C)
<b>Maximum Air Humidity</b>	< 90 RH
<b>Colour</b>	Buttons: Depends on models Back cover: Matte black
<b>Dimensions</b>	90 x 90 x 12 mm (W x H x D)
<b>Certification</b>	KNX Certified
<b>Configuration</b>	Configuration with ETS

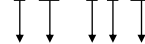
### DESCRIPTION

Interra iSwitch is a wall-mounting room controller device with an integrated temperature and humidity sensor. The iSwitch can control heating and cooling operating modes with 2-points, Continuous and PWM thermostat functions. Each push-button is equipped with an RGB LED to show feedback or visualization and LCD models are equipped with VA-Display technology which provides low energy cost and good view angle. Moreover, there is blue navigation LED for orientation nightlight. The device provides an adjustable LCD backlight and LEDs intensity for user comfort. The product range has 9 different models with LCD and without LCD. All models can be programmable with the 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.

### MODELS AND VARIATIONS

#### Coding Standard:

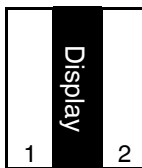
ITR3XX-XXXX



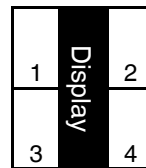
A B C D E

- A : iSwitch group
- B : Button count
- C : LCD is available or not
- D : Material
- E : Colour

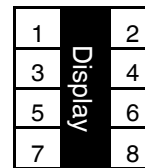
#### Models with LCD:



ITR302-1XXX

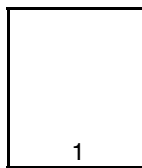


ITR304-1XXX

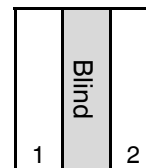


ITR308-1XXX

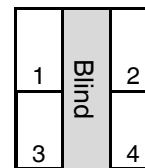
#### Models without LCD:



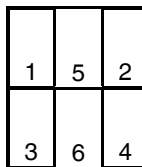
ITR301-0XXX



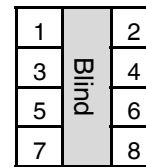
ITR302-0XXX



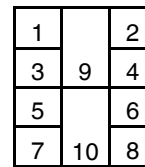
ITR304-0XXX



ITR306-0XXX



ITR308-0XXX



ITR310-0XXX

### Material and Color Options:

Material	0 Plastic	1 Aluminum	2 Stainless Steel	3 Glass
Colors	01 - Black	00 - Natural	00 - Natural	01 - Black
	02 - Glossy White	01 - Black	07 - Antique Copper	02 - White
	03 - Matt White	02 - Bronze	08 - Antique Bronze	
	04 - Anthracite Matt	06 - Gold		
	05 - Metallic Gray			
	06 - Antique Bronze			

### MAIN FUNCTIONAL CHARACTERISTICS

- All 9 models can be programmable with the same database.
- Push-button 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<sub>2</sub> 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.
- Relative humidity measuring through the integrated sensor with the possibility of sending the value on the bus.
- Threshold alarm defined for temperature and humidity levels.

### LCD DISPLAY

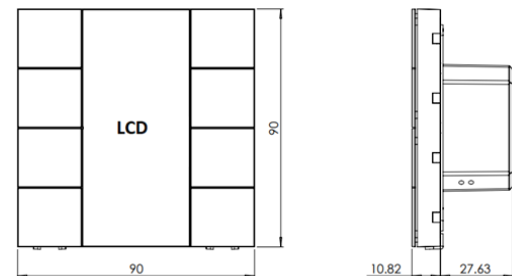
The LCD is located between the gangs. The symbols on the LCD are explained below. LCD backlight can be automatically switched down while not using the device or changeable from the bus. Temperature values, humidity and CO<sub>2</sub> values can be switched between them with defined time to see all different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

Each button has 2 different push-button 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, push buttons can be arranged for other controls.



Symbol	Meaning	Symbol	Meaning
	Temperature (in °C or °F), relative humidity (in %), CO <sub>2</sub> 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

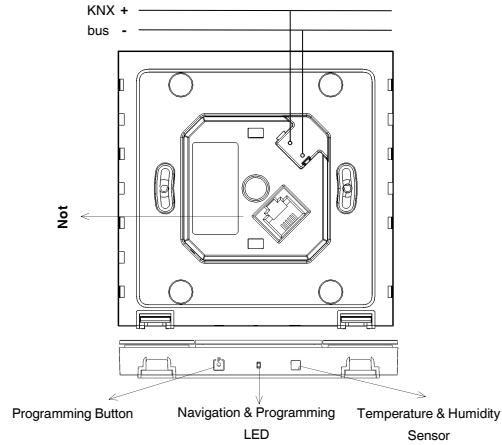
### DIMENSIONS (mm)



All of the iSwitch models, with or without LCD, have got the same dimensions.

## CONNECTION TO KNX BUS AND 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 the LED's red light is on. Also, this can be done by pressing the programming button as another method.

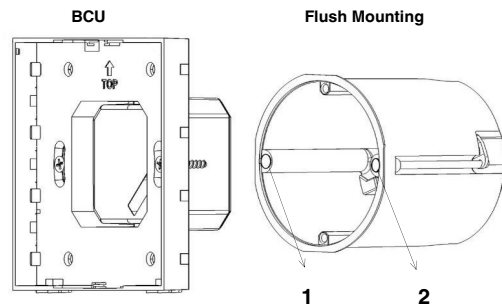
In these circumstances, the device is ready for programming.

### MOUNTING

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

#### Mounting of the BCU

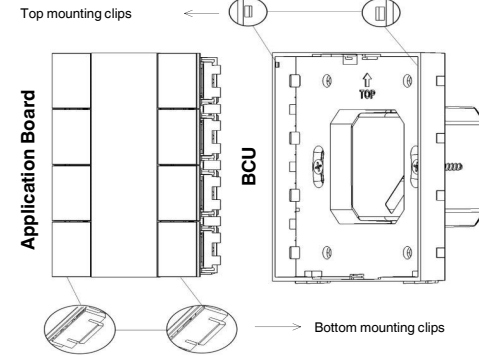
The device is suitable for use in dry interior rooms and can only mount on a standard-sized round or square wall flush mounting box. The BCU should be mounted after the wall painting process is finished. Otherwise, the product's cosmetics may be damaged. The mounting steps are shown below.



- First, the wall flush mounting box installation whether is done properly should be checked.
- Second, iSwitch'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.
- Third, the screws are guided through number "1" and number "2" holes that are shown above.
- Finally, The BCU should be aligned by scales that is positioned decently, then tighten the guided screws.

#### Mounting of the Application

After a successful BCU mounting, iSwitch's Application Board must be mounted on the BCU part. The mounting steps are described below.



- First, the communication connector on the Application board that will be attached to the BCU part.
- Second, when connection is succeeded, Application board is ready to be connected and it must be slightly approached to BCU.
- Third, 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.
- Finally, lower side notches should be gently seated in the slot of the BCU side.

#### Demounting of the Application Board :

- First, lower side notches pushed backwards from the underside of the device.
- Second, Application Board should be held at an angle of approximately 45° and the top side notches are pulled from the top of the device.
- Third, Application Board's communication connector should be removed from the BCU.
- Finally, application board is demounted from the BCU.

### SAFETY INSTRUCTIONS

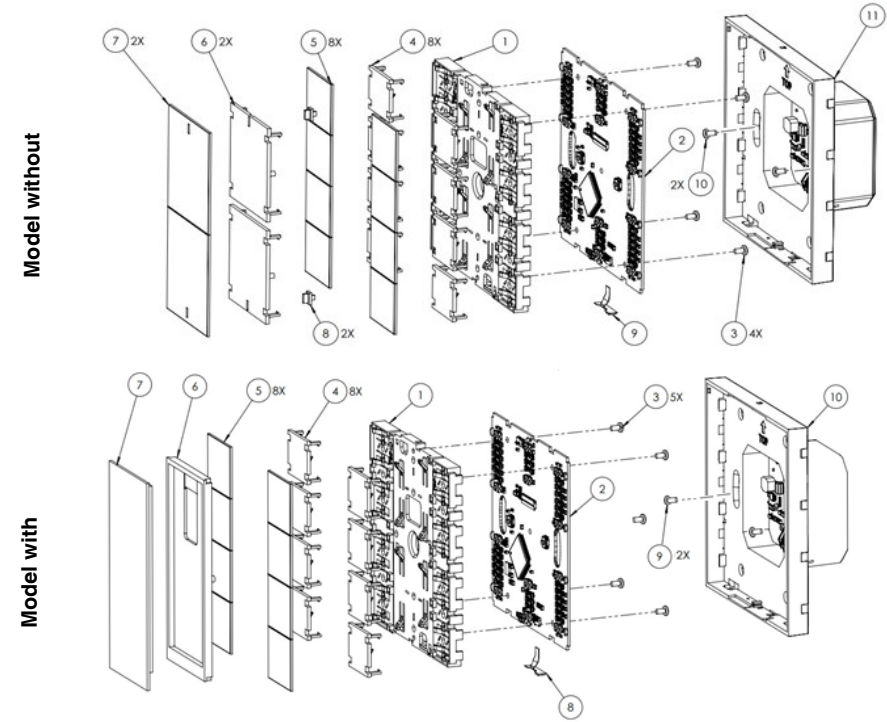
- All Installations should only be performed by qualified personnel following applicable regulations on preventing accidents, as required by law.
- Do not connect the main voltage (230 V AC) or any other external voltages to any point of the KNX bus.
- Connecting an external voltage might put the KNX system at risk.
- Ensure that there is enough insulation between the 230 V AC voltage cables and the KNX bus.
- Do not expose this device to direct sunlight, rain or high humidity.
- Clean the product with a clean, soft, damp cloth.
- Do not use aerosol sprays, solvents or abrasives that might damage the device.

### MARKS

**CE:** The device complies with Electromagnetic Compatibility Directive (2014/30/EU), Low Voltage Directive (2014/35/EU) and Restricting the Use of Hazardous Substances Directive (2011/65/EU).

Tests carried out according to EN 55024, EN 55032, EN 60950-1, EN63044-5-2 and EN61000-4-3 standards.

## iSWITCH INTERNAL COMPONENTS



Model without

Model with

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

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	LCD Cover	ABS-PC plastic LCD cover	1
7	LCD Display	VA-Type LCD	1
8	Sensor & LED	Temperature & humidity sensor, navigation & programming LED	1
9	Screw	M2x4 (mm)	2
10	BCU	Common for all models	1