

ITR3XX-X iSWITCH KNX ROOM CONTROLLER



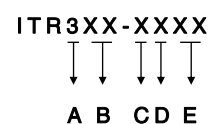
Device	ITR3XX-XXXX
Power Supply	EIB Power supply
Power Consumption	ITR301-0XXX: 10mA ITR308-1XXX: 18mA
Push Buttons	Depends on model (1 to 10 button) 1 x KNX Programming button
LED Indicators	RGB LEDs for each button 1 x Blue Navigation LED 1 x Red Programming LED
Sensors	Temperature sensor ($\pm 0.2^{\circ}\text{C}$ sens.) Humidity sensor ($\pm 2\%$ RH sens.)
Interfaces	VA-type low power LCD
Commissioning Mode	S-Mode
Type of Protection	IP 20
Temperature Range	Operation (-10°C...70°C) Storage (-25°C...100°C)
Maximum Air Humidity	< 90 RH
Flammability	Non-flammable product
Colour	Buttons: Depends on models Back cover: Matte black
Dimensions	90x90x12mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS

DESCRIPTION

Interra iSwitch is a wall-mounting room controller device with integrated temperature and humidity sensor. The iSwitch able 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.

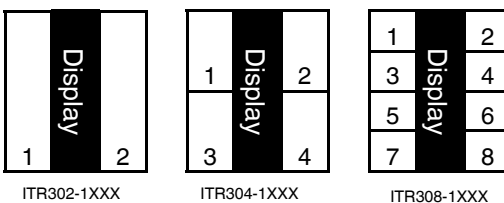
MODELS AND VARIATIONS

Coding Standard:

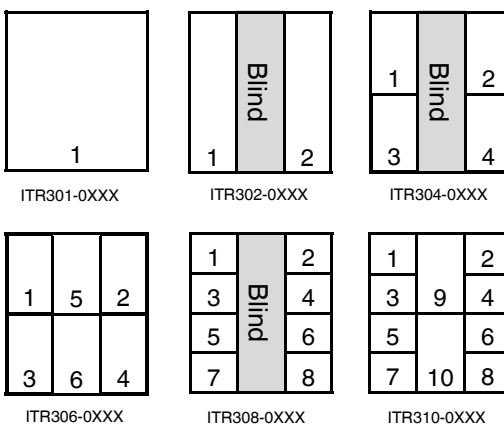


- A : iSwitch group
- B : Button count
- C : LCD is available or not
- D : Material
- E : Colour

Models with LCD:



Models without LCD:



Material and Colour 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		02 - White
	03 - Matt White	06 - Champagne		
	04 - Anthracite Matt			
	05 - Metallic Gray			

MAIN FUNCTIONAL CHARACTERISTICS

- All 9 models can be programmable with same database.
- 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), CO₂ 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 possibility of sending the value on the bus.
- Threshold alarm define for temperature and humidity levels.

LCD DISPLAY

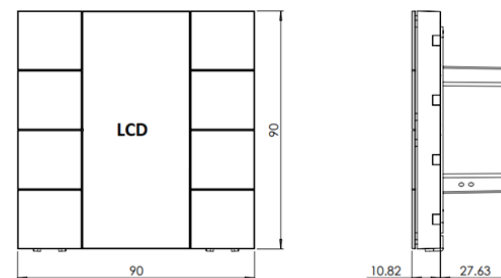
LCD display is located between the gangs. The symbols on LCD display are explained below. LCD backlight can be automatically switch down while not using the device or changeable from the bus. Temperature values, humidity and CO₂ values can be switch between them with defined time to see all different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

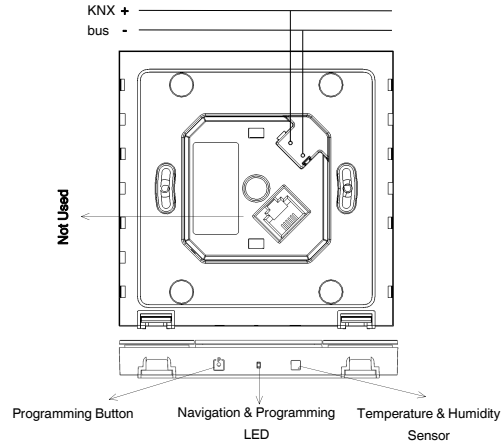
DIMENSIONS (mm)



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.



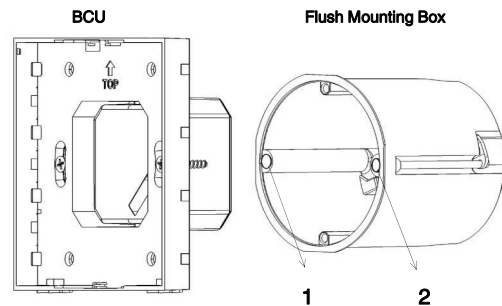
After pressing the buttons on the top left and bottom left corner of the device simultaneously, the programming LED is activated by pressing the button in the bottom right corner and LED's red light is on. Also this can be done by pressing the programming button as another method. In the circumstances, the device is ready for programming.

MOUNTING

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

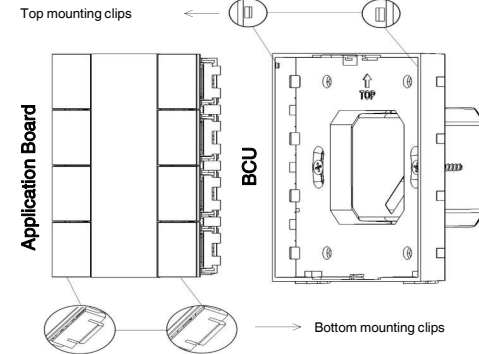
The device is suitable for use in dry interior rooms and can only be mounted on a standard sized round or square wall flush mounting box. The BCU should be mounted after the wall painting process is finished. Otherwise, the product's cosmetics may be damaged. The mounting steps are shown below.



- 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 Board :

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



- First, 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 (230VAC) or any other external voltages to any point of the KNX bus.
- Connecting an external voltage might put the KNX system into risk.
- Ensure that there is enough insulation between the 230VAC 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.

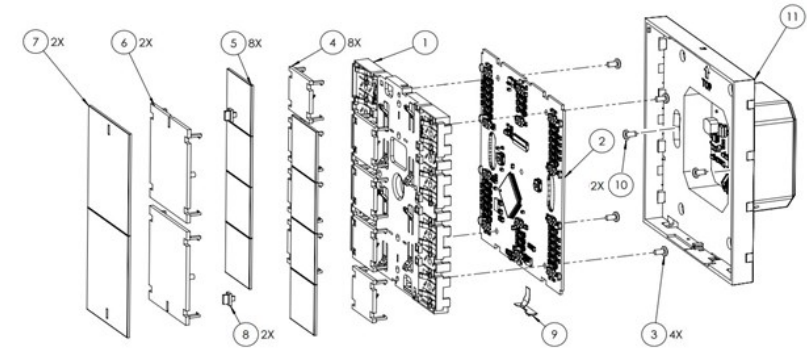
MARKS

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).

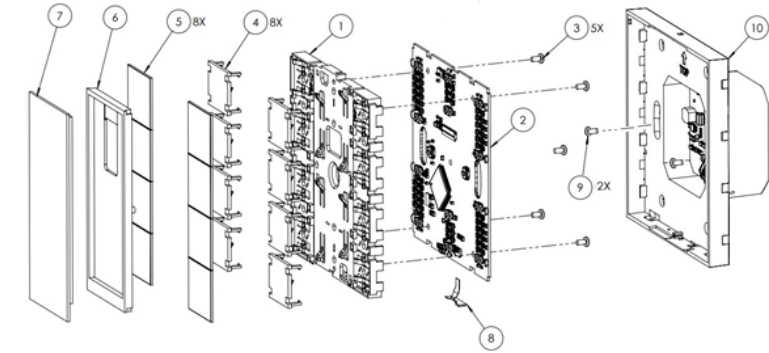
Tests carried out according to EN 55024, EN 55032, EN 60950-1, EN63044-5-2 and EN61000-4-3 standards.

iSWITCH INTERNAL COMPONENTS

Model without LCD



Model with LCD



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	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