

INTERRA

General Product
Catalogue

As INTERRA Family;

We Are An Innovative, Young, Dynamic Brand That Loves Research And Development, Closely Follows The Technology...





Interra is a company that develops both software and hardware with its R&D teams experienced in the field of automation.

By aiming each product to primarily comply with high-quality standards, the company uses the highest quality components.

With this vision, Interra is a leader in the primary local and environmental markets, and is one of the important players in the global arena.



- Afghanistan
- Albania
- Algeria
- Andorra
- Angola
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Bahrain
- Bangladesh
- Belarus
- Belgium
- Bolivia
- Bosnia and H.
- Brasil
- Bulgaria
- Burkina Faso
- Cambodia
- Cameruoon
- Canada
- Chile
- China
- Colombia
- Costa R ca
- Croatia
- Cuba
- Cyprus Republic
- Czech Republic
- Denmark
- Dominican R.
- Ecuador
- Egypt
- El Salvador
- Estonia
- Ethiopia
- Finland
- France
- Georgia
- Germany
- Ghana
- Greece
- Guatemala
- Guinea
- Haïti
- Honduras
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Israel
- Italy
- Ivory Coast
- Jamaïca
- Japan
- Jordan
- Kazakhstan
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- Kuwait
- Latvia
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- Libya
- Lithuania
- Luxembourg
- Macedonia
- Malaysia
- Malta
- Mexico
- Moldova
- Montenegro
- Morocco
- Mozambique
- Myanmar
- Nepal
- Netherlands
- New Zeland
- Nïgeria
- North Korea
- Norway
- Oman
- Pakistan
- Palestine
- Paraguay
- Peru
- Philippines
- Poland
- Portugal
- Qatar
- Romania
- Russia
- Saudi Arabia
- Senegal
- Serbia
- Singapore
- Slovakia
- Slovenia
- South Africa
- South Korea
- South Sudan
- Spain
- Sudan
- Sweden
- Switzerland
- Syria
- T.R.N.C.
- Taiwan
- Tajikistan
- Thailand
- Tunisia
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10.1" Touch Panel

Product	Order Code	Dimensions
Interra 4 10.1" Touch Panel - Android KNX	ITR110-0104	ITR110-0104
Interra 4 10.1" Touch Panel - Android	ITR110-1104	ITR110-1104

Frame Accesories	Order Code	Dimensions
10.1" Touch Panel Frame Black Aluminum	ITR110-0204	
10.1" Touch Panel Frame Black Acrylic	ITR110-0205	
10.1" Touch Panel Frame Stainless Steel	ITR110-0206	
10.1" Touch Panel Frame Champagne Plastic	ITR110-0207	
10.1" antique copper frame	ITR110-0209	
10.1" antique brass frame	ITR110-0210	

Mounting Boxes	Order Code	Dimensions
10.1" Touch Panel Flush Mouting Box	ITR110-9004	



Product	Order Code	Dimensions
Interra 4 7" Touch Panel - Android KNX	ITR107-0104	ITR110-0104
Interra 4 7" Touch Panel - Android	ITR107-1104	ITR110-1104

Frame Accesories	Order Code	Dimensions
7" Touch Panel Frame Black Aluminum	ITR107-0201	
7" Touch Panel Frame Black Acrylic	ITR107-0202	
7" Touch Panel Frame Stainless Steel	ITR107-0203	
7" antique copper frame	ITR107-0209	
7" antique brass frame	ITR107-0210	

Mounting Boxes	Order Code	Dimensions
Interra 4 7" Touch Panel Flush Mouting Box	ITR107-9004	
Interra 4 7" Touch Panel Surface Mounting	ITR107-9904	

ITR110-0104 - ITR107-0104

- 10" & 7" Interra Touch Panel



Device	ITR110-0104, ITR107-0104
Power Supply	12V DC Power Supply
Current	10" : $\approx 3A$, 7" : $\approx 2A$
Power Consumption	10" : $\approx 36W$, 7" : $\approx 24W$
CPU	ARM Cortex A7 Dual-Core 2x1.2 GHz
Memory	1 GB DDR3
Storage	8 GB EMMC
OS	Android
Temperature Range	Operation (-20°C...70°C) Storage (-35°C...100°C)
Type of Protection	IP 20
USB	1x USB2.0
KNX	1x KNX Connector
Display	HDMI 1.3 up to 1920x1080p@60Hz
Button	Reset button
Network	100Mbps Ethernet and USB WIFI
RTC	System includes RTC with CR1220 battery
GPIO	3pcs relayed Output (5A), 3pcs input connectors.
Dimensions	10" : 345x232x36 mm (WxHxD) 7" : 260x167x36 mm (WxHxD)
Certification	KNX Certified
Configuration	With Interra Configurator Software

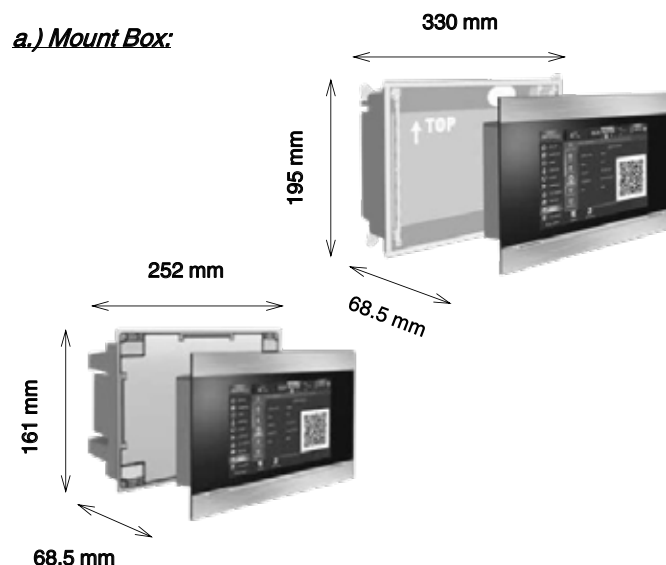
DESCRIPTION

Interra touch panels are designed to control the entire automation system from a single smart point. Interra touch panels can control complex systems such as switches, simple sensors, lighting, heating systems, camera and alarm systems from a central point. Mobile control can be done by downloading Interra Pro software from online software markets related to IOS or Android based devices. Also, The configuration software (Interra Configurator) can be downloaded from our website (www.interra.com.tr) for the Interra touch panel configuration.

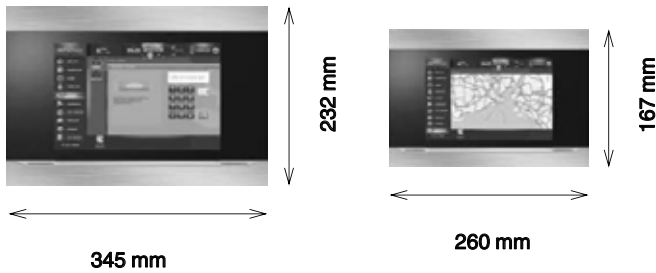
MAIN FUNCTIONAL CHARACTERISTICS

- The automation system via EIO (Ethernet Input / Output) and KNX can be controlled with Interra Touch Panel.
- Via touch panel's timer feature, desired operations can be made according to daily, weekly, monthly, annual or determined schedules.
- Security systems can be controlled via mobile and panel applications and also available cameras can be displayed with Interra touch panel.
- The desired number of logic operations can be made with Interra touch panel.
- Push notifications to mobile applications is immediately sent in the event of a notification via Google and Apple Cloud.
- All IOT compatible devices can be controlled using Interra touch panel.
- With Interra touch panel, the house can be controlled via voice command assistants such as Amazon Eco, Google Home and Siri.

DIMENSIONS



b.) Device



CONNECTIONS



VOLTAGE **KNX** **HDMI** **USB** **ETHERNET** **I/O**

Voltage : Interra touch panels are powered by a special 3-pin green industrial special connector with 12V DC voltage. Pin indications are written on the plastic case. Cables of the 12V power supply must be plugged in accordance with the polarity. The reset button on the top cover is used to “Hard Reset” the device manually. This button has an LED indicator and if the system is powered this LED lights on.

KNX : Interra touch panels have a two pin green colored KNX connector. This connector has pin indications on the plastic box. KNX cables must be plugged to this connector with the correct polarity.

HDMI : For different application purposes, Interra touch panels have an HDMI connector. Its output is configurable via special software.

USB : Interra touch panels have a USB host connector on the side panel. This connection extends its storage capacity. Also, this connector can be used for WIFI connection via USB dongle.

Ethernet : Interra touch panels have a standard 10/100Mbps RJ45 ethernet connector.

I/O : Interra touch panels have 3 inputs and 3 outputs connector. Both inputs and outputs are optocoupled. Outputs are connected to 12V-5A relays.

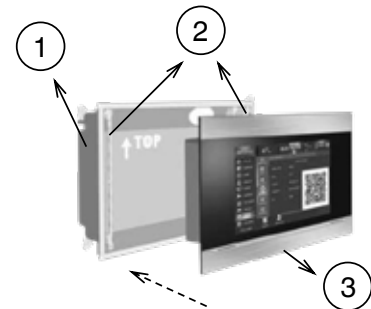


SAFETY INSTRUCTIONS

- The device may only be installed and put into operation by a qualified electrician or authorized personnel.
- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Do not connect the main voltage (230 VAC) or any other external voltages to any point of the KNX bus.
- Connecting an external voltage might put the KNX system into risk. Please, do not forget to consider this issue.
- Ensure that there is enough insulation between the 230 VAC voltage cables and KNX bus.
- Screwing torque value should be maximum 1.2nm during mounting process of mount case and touch panel.
- Do not use aerosol sprays, solvents or abrasives that might damage the device.
- Accessibility of the device for operation and visual inspection must be provided.

MOUNTING

- I. First of all, a slot should be opened on the wall where the touch panel will be used, in suitable sizes for mounting case.
- II. Then, number 1 the panel mounting case is mounted to the previously opened slot so that it is on a level parallel to the ground and the arrow mark on the frame must points upwards.
- III. After, 2 long metal laths numbered 2 are screwed onto the mounting box. Installation of metal bar laths should be done carefully, mounting should be done at appropriate torque in order not to bend the laths.
- IV. Finally, the touch panel is placed in the mounting box by moving in the direction of the dashed arrow. Then it is screwed to the mounting frame through the screw slots on the 4 corners of the panel. Magnetic materialled lath with 2 horizontal holes on it should be attached to the lower part of the panel and the other one is attached to the upper part of the panel and the mounting process is completed.





PRODUCTION FLOOR



1 ST FLOOR



2 ST FLOOR



DSC ALARM



SCENARIO



ALARM



SERVICES



CONTACTS



CAMS



SITE MANAGEMENT



MESSAGES



TRAFFIC



LIGHTING



CURTAIN



BLIND



AIR



GENERAL



i7+ Plus

Product	Order Code	Dimensions
Interra i7+ Touch Panel	ITR165-0002	120x180mm

Frame Accesories	Order Code	Dimensions
Interra i7+ Touch Panel frame	ITR165-1002	

Mounting Boxes	Order Code	Dimensions
10.1" Touch Panel Flush Mouting Box	ITR110-9004	

ITR165-0002 - i7+ Touch Panel



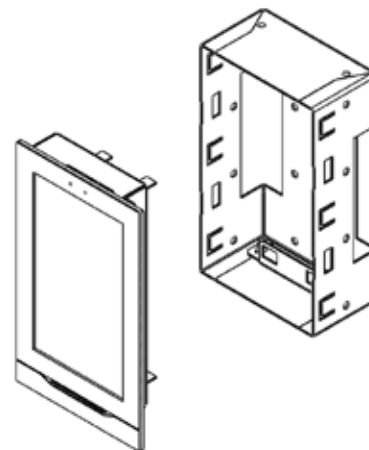
DESCRIPTION

Interra i7+ touch panel is designed to control the entire automation system from a single smart point. Interra i7+ can control complex systems such as switches, simple sensors, lighting, camera systems and alarm systems from a central point. Moreover, i7+ can also control the air conditioning systems with 2-point mode by thermostat functionality. Mobile control can be done by downloading Interra Pro software from online software markets related to IOS or Android based devices. Also, The configuration software (Interra Configurator) can be downloaded from our website (www.interra.com.tr) for the i7+ touch panel configuration.

MAIN FUNCTIONAL CHARACTERISTICS

- The automation system via EIO (Ethernet Input / Output) and KNX can be controlled with i7+ touch panel.
- Via i7+ touch panel's timer feature, desired operations can be made according to daily, weekly, monthly, annual or determined schedules.
- Security systems can be controlled via mobile and panel applications and also available cameras can be displayed with i7+ .
- Air conditioning systems can be controlled by thermostat function. 2-point on/off control can be made according to configured hysteresis with internal sensor or external source.
- The desired number of logic operations can be made with i7+ .
- Push notifications to mobile applications is immediately sent in the event of a notification via Google and Apple Cloud.
- All IOT compatible devices can be controlled using i7+ .
- With i7+, the house can be controlled via voice command assistants such as Amazon Eco, Google Home and Siri.

MOUNTING

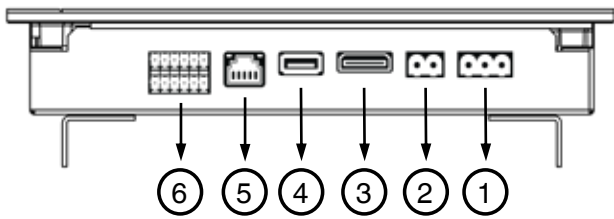


First, the mounting box must be attached to a suitable place on the wall. The long side of the mounting box should be placed at a right angle to the ground.

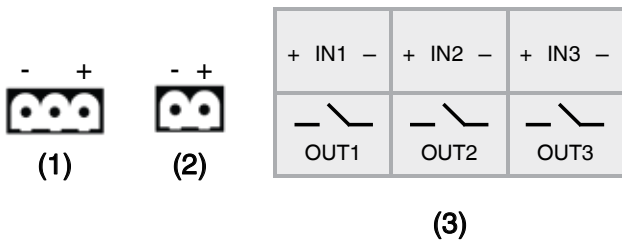
Then i7+ is attached to the mounting box as shown in the left figure and the mounting process is completed.

Device	ITR165-0002
Power Supply	12V-2A DC Power Supply
CPU	ARM Cortex A7 Dual-Core 2x1.2 GHz
Memory	1 GB DDR3
Storage	8 GB EMMC
OS	Android
USB	1x USB2.0
KNX	1x KNX Connector
Sensors	1xTemperature Sensor
Display	7" LCD, HDMI 1.3 up to1920x1080p@60Hz
Network	100Mbps Ethernet and USB WIFI
RTC	System includes RTC with CR1220 battery
GPIO	3pcs relayed Output (5A), 3pcs input connectors.
Temperature Range	Operation (0°C...45°C) Storage (-15°C...70°C)
Dimensions	i7+ Panel : 170x65x90 mm (WxHxD) Mounting Box : 116x201x65 mmm (WxHxD)
Certification	KNX Certified
Configuration	With Interra Configurator Software

CONNECTIONS



Polarization:



1-) Voltage: Interra i7+ is powered by a 12V-2A DC power supply. This power supply has a special green colored 3 pin connector which is a terminal block in industrial grade. Pin indications are written on case.

2-) KNX: Interra i7+ has a two pin green colored KNX connector. This connector has pin indications on the plastic box. Additionally, i7+ has a certified KNX circuit.

3-) HDMI: For different application purposes, i7+ has an HDMI connector. Its output is configurable via special software.

4-) USB: i7+ has a USB host connector on the side panel. This connection extends its storage capacity to almost infinity. Also, this connector can be used for WIFI connection via USB dongle.

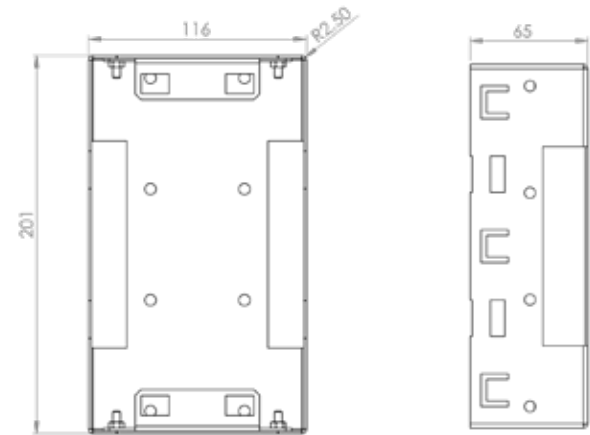
5-) Ethernet: i7+ has a standard 10/100Mbps RJ45 ethernet connector.

6-) I/O: i7+ has 3 inputs and 3 outputs connector. Both inputs and outputs are optocoupled. Outputs are connected to 12V-5A relays.

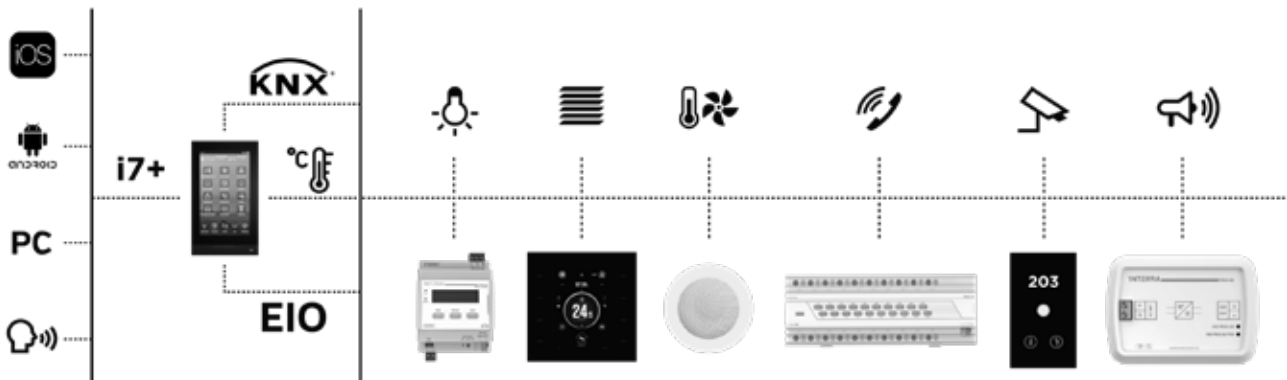
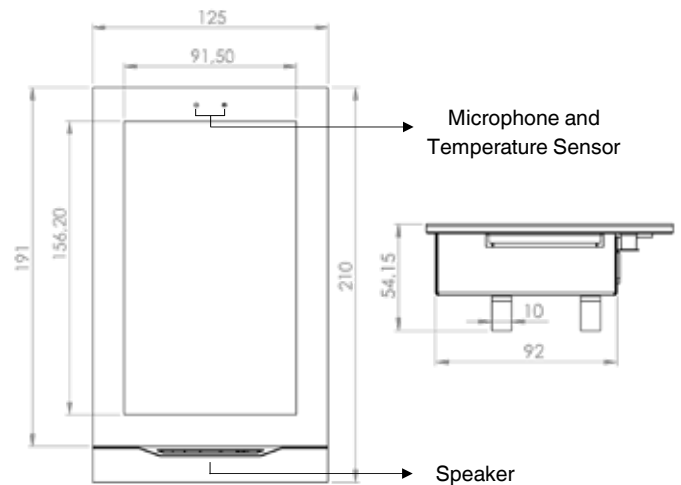
DIMENSIONS

The dimensions of the mounting box and device i7+ are shown below. All dimensions stated are in millimeters.

Mounting Box:



i7+ Touch:



JUST TOUCH

Lighting

RGB & Tunable White Colour Control

Curtain / Shutter Control

Air Conditioning

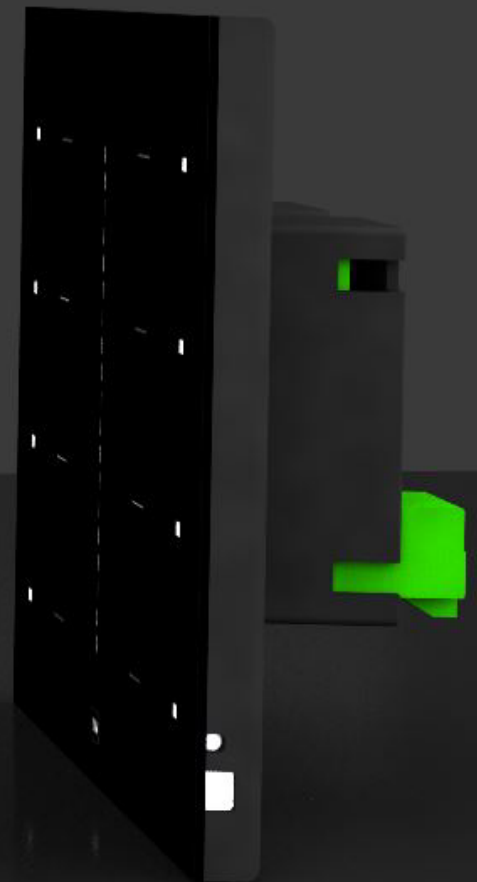
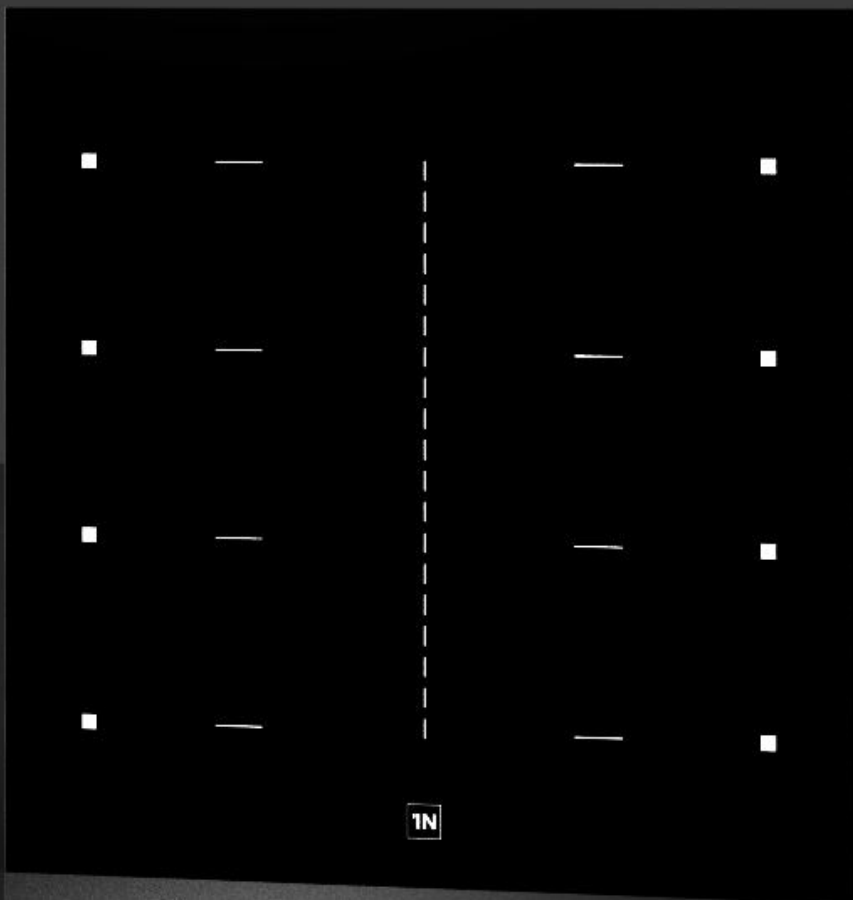
Free Programmable Pages

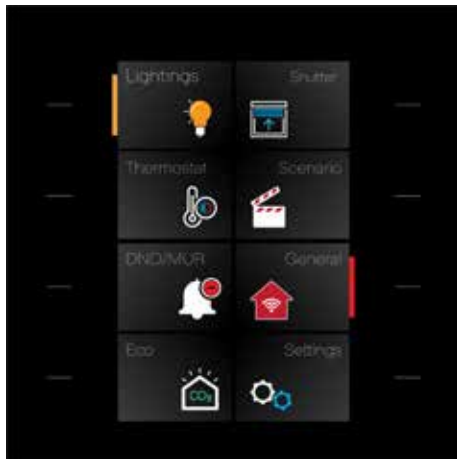
Hotel-DND/MUR



New Generation **Thermostatic Touch Switches...**

Touch Vibration Sensitivity
Proximity
Carbon dioxide (CO2)
Temperature and Moisture Sensor
Custom Modes
Time-bound Scenarios





Just Touch / Full Touch / Black

Product		Order Code	Dimensions
Just Touch Full Touch	2	ITR322 - 1001	
Just Touch Full Touch	4	ITR324 - 1001	
Just Touch Full Touch	8	ITR328 - 1001	



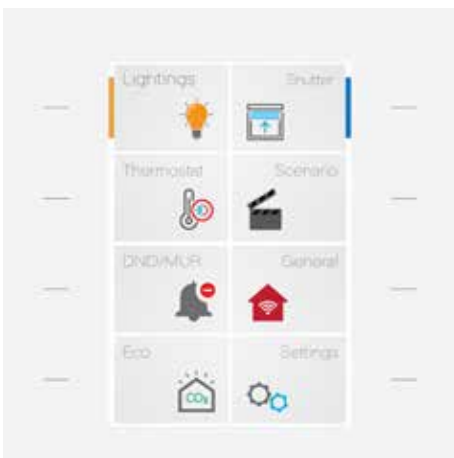
Just Touch / Full Touch / Black

Product	Gang	Order Code	Dimensions
Just Touch Full Touch	2	ITR322 - 1001	
Just Touch Full Touch	4	ITR324 - 1001	
Just Touch Full Touch	8	ITR328 - 1001	



Just Touch / Full Touch / Black

Product	Gang	Order Code	Dimensions
Just Touch Full Touch	2	ITR322 - 1001	
Just Touch Full Touch	4	ITR324 - 1001	
Just Touch Full Touch	8	ITR328 - 1001	



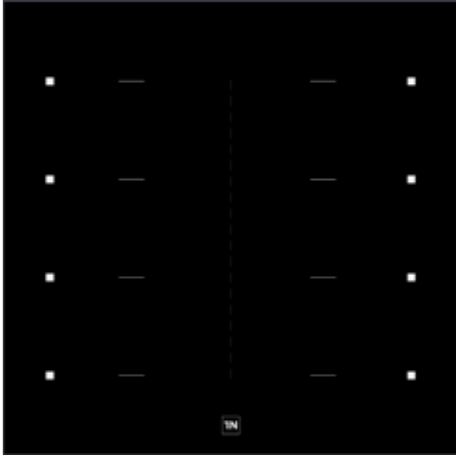
Just Touch / Full Touch / Black

Product	Gang	Order Code	Dimensions
Just Touch Full Touch	2	ITR322 - 1001	
Just Touch Full Touch	4	ITR324 - 1001	
Just Touch Full Touch	8	ITR328 - 1001	



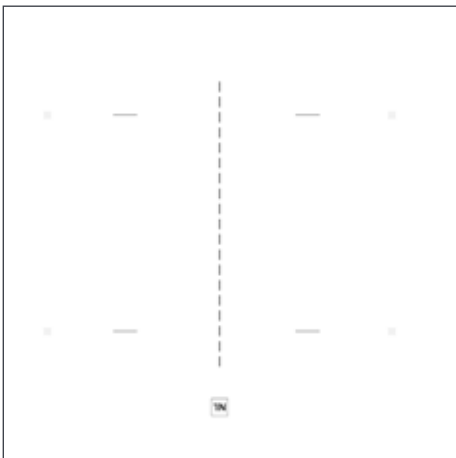
Just Touch / Full Touch / Black

Product	Gang	Order Code	Dimensions
Just Touch Full Touch	2	ITR322 - 1001	
Just Touch Full Touch	4	ITR324 - 1001	
Just Touch Full Touch	8	ITR328 - 1001	



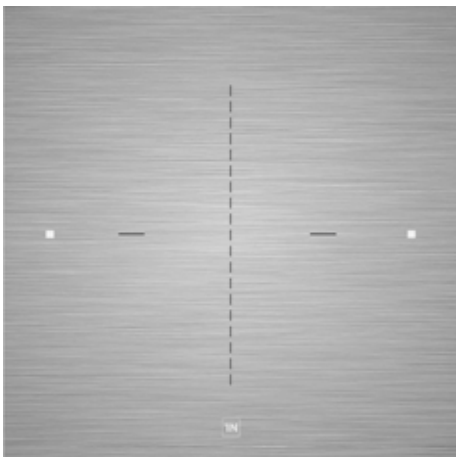
Just Touch Pure / Full Touch /

Product	Gang	Order Code	Dimensions
Just Touch Full Touch Pure	2	ITR322 - 1001	
Just Touch Full Touch Pure	4	ITR324 - 1001	
Just Touch Full Touch Pure	8	ITR328 - 1001	



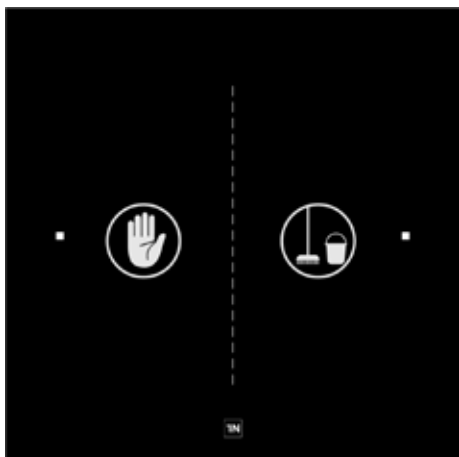
Just Touch Pure / Full Touch /

Product	Gang	Order Code	Dimensions
Just Touch Pure / Full Touch /	2	ITR322 - 1001	
White	4	ITR324 - 1001	
Just Touch Pure / Full Touch /	8	ITR328 - 1001	
White			



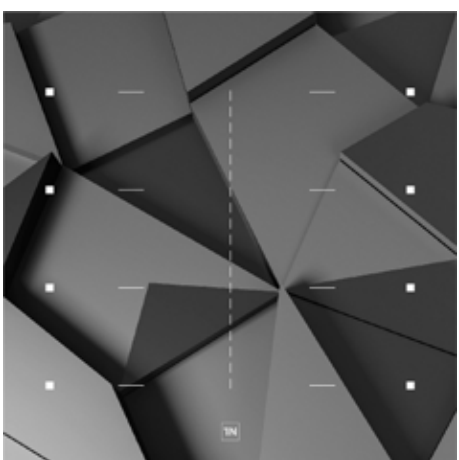
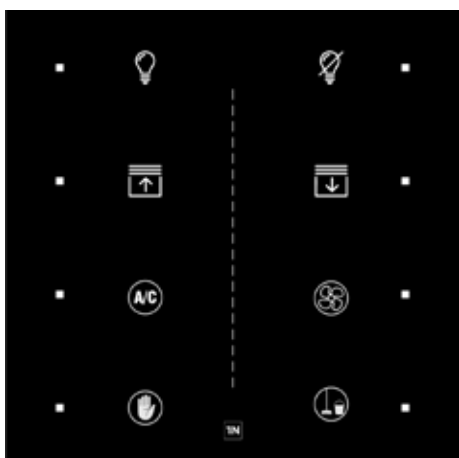
Just Touch Pure / Full Touch /

Product	Gang	Order Code	Dimensions
Just Touch Full Touch	2	ITR322 - 1001	
Just Touch Full Touch	4	ITR324 - 1001	
Just Touch Full Touch	8	ITR328 - 1001	



Just Touch DND / Full Touch /

Product	Gang	Order Code	Dimensions
Just Touch Full Touch Pure	2	ITR322 - 1001	
Just Touch Full Touch Pure	4	ITR324 - 1001	
Just Touch Full Touch Pure	8	ITR328 - 1001	



Just Touch Custom / Full Touch

Product	Gang	Order Code	Dimensions
Just Touch Full Touch	2	ITR322 - 1001	ITR110-0104
Just Touch Full Touch	4	ITR324 - 1001	
Just Touch Full Touch	8	ITR328 - 1001	

ITR32X-XXXX - INTERRA JUST TOUCH



Description

Interra justTouch is a complete room control device with touch front panel and 3.5 "colourful TFT screen. It performs all functions required for building automation such as lighting, shutter/blind control and DND as well as thermostat functions with its unique page structure. In the Interra justTouch user interface, there are 6 function pages other than the home page. Each page can be customized as desired by the users via ETS, and the button functions on each page can be adjusted according to need. In addition, button images and texts can be changed on ETS. Besides internal temperature and humidity sensors on Interra justTouch, external humidity, temperature and air quality information can be monitored via KNX. Product range has mainly 6 different models with full touch and acrylic touch functionality. All models can be programmable with same ETS database which provides efficient commissioning.

Models and Variations

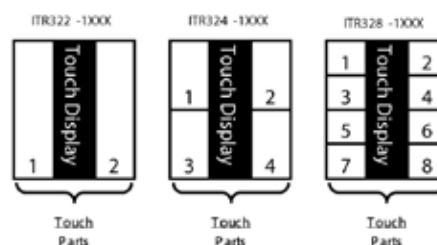
Device	ITR32X-XXXX
Power Supply	EIB Power supply
Power Consumption	0.6W, 20mA @30V KNX Bus
Touch Buttons	2 buttons, 4 buttons, 8 buttons
Display	Full Touch : Touch screen + touch buttons Acrylic Touch : Touch buttons + non-touch screen
Sensors	Temperature Sensor (30.2°C sensitivity) Humidity Sensor (32 %RH sensitivity) I
Interfaces	320RGB x 480 Dots TFT LCD display
Comissioning Mode	S-Mode
Type of Protection	IP 20
Temperature Range	Operation (-10°C...70°C) Storage (-25°C...100°C)
Material	PC-ABS + Touch Layer
Flammability	Non-flammable product
Colour	Buttons: Depends on models Back cover: Matte black
Dimensions	90x90x37mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Coding Standard:

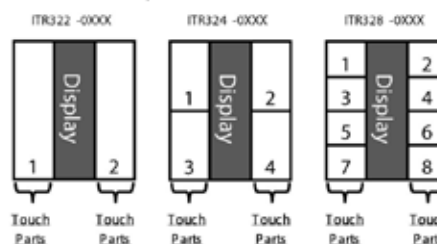
ITR 3 2 X - X X X X
 ↓ ↓ ↓ ↓
 A B C D

A : Button count
 B : Touch Type
 C : Reserved
 D : Colour

Models with Full Touch :



Models with Acrylic Touch :



Functions and Characteristics

- Pushbutton has Switching, toggle, dimming, shutter/blinds, thermostat controls, scenes, value, 2 channels, step switching mode features.
- All 6 models can be programmable with same database.
- 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 Heating and Cooling 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), CO2 concentration (from bus), humidity percentage, operating modes, fan levels, on/off indicators, warnings and locking status are displayed on screen.
- Fan controller available with different speed indicators.
- Relative humidity measuring through the integrated sensor with possibility of sending the value on the bus.
- Threshold alarm define for temperature, humidity and air quality levels.
- RGB LED control.

TFT LCD Display



Fig.1

The main page of Interra justTouch is shown in the figure 1. The relevant function pages can be accessed here. There are 6 different function pages that adjustable upon requests in Interra justTouch.

The thermostat control screen of the Interra justTouch is shown in the figure 2. Setpoint control, switching between the operating modes, fan speed controls can be made. Also, indications such as temperature, CO2 concentration, on/off, warnings can be monitored.



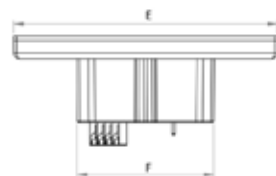
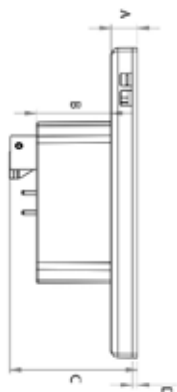
Fig.2

In full touch models, automation controls can be achieved by touching the icons on the screen and also by touch buttons located on the sides of the TFT LCD screen. However, in acrylic touch models, the icons on the screen are used as indicators. Control operations are provided by the touch buttons on the sides of the TFT LCD screen.

The table below shows the various icons and their meanings on the justTouch:

Icon	Definition	Icon	Definition
	Lighting Control		Shutter/Blind Control
	Thermostat Control		Scene Control
	DND/MUR Control		General
	RGB Control		Settings Configuration
	Standby Mode		Comfort Mode
	Economy Mode		Building Protection

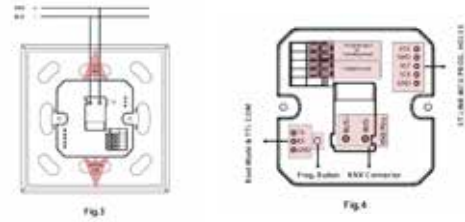
Dimensions (mm)



A	Full Touch : 7,70 mm Acrylic Touch : 7,20 mm
B	22 mm
C	37 mm
D	Full Touch : 1,5 mm Acrylic Touch : 1 mm
E	90 mm
F	47 mm

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.



The connectors of Interra justTouch are shown in Fig.4. There are following connectors on Interra justTouch : KNX connector, ST-Link MCU programming connector, analog/digital input connectors, programming mode button, Boot-Mode & TTL Com connector.

The KNX connector must be installed in order to operate Interra justTouch.

Besides, the device starts in boot mode if the programming button is pressed and holding, then energized. When the programming button is pressed while the device is energized, it switches to programming mode.

Moreover, firmware updates can be made via ST-LINK MCU programming connector.

Mounting

Interra justTouch's mounting steps are described below. The procedures are described in 2 main sections : Mounting and demounting.

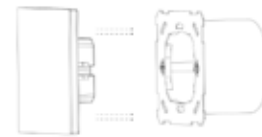


Fig.5

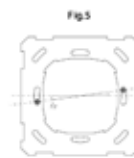


Fig.6

Note : There is a maximum deviation angle of 7.5 degrees for screwing the metal fastener (See Fig.6). The screwing position of the mounting box can be mounted with up to the maximum deviation of this angle.

Mounting :

- First, the metal fastening apparatus is attached to the junction box with M3.5x20 mm screws with a maximum torque of 1.4 N.m.
- Second, knx cable and input cables, if any, are attached to the relevant connectors on Interra justTouch.
- Finally, the justTouch is gently placed in the junction box with the top part (see Fig.3) facing up with holding the right and left sides of the justTouch and the mounting process is completed.

Demounting :

- First, the metal fastening apparatus is attached to the junction box with M3.5x20 mm screws with a maximum torque of 1.4 N.m.
- Second, knx cable and input cables, if any, are attached to the relevant connectors on Interra justTouch.
- Finally, the justTouch is gently placed in the junction box with the top part (see Fig.3) facing up with holding the right and left sides of the justTouch and the mounting process is completed.
- First, hold the Interra justTouch from the right and left side and pull it back slightly
- Second, the knx cable and, if any, input cables are removed over Interra justTouch.
- Finally, the screws of the metal fastening apparatus are removed from the junction box with a maximum torque of 1.4 N.m and the demounting process is completed.

'INTERRA

CERTIFIED R&D CENTER OF AUTOMATION

Developer of Uniqueness

Interra Iswitch

Elegant & Smart & Universal



Interra

Iswitch brings functionality and design to users.

With its elegant and stylish design, Iswitch draws attention with its talents. It meets all expectations with its wide range of materials and colors.

Intelligent control adds energy and efficiency while adding comfort and aesthetics to your living space.



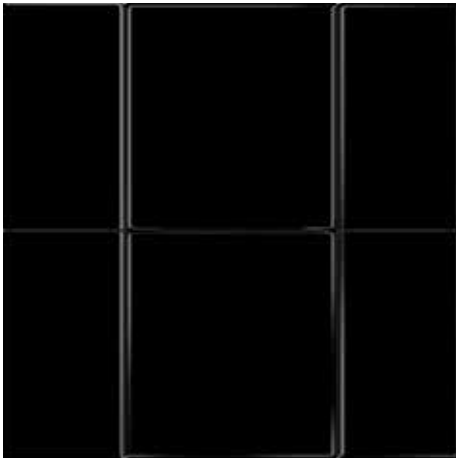
Iswitch can provide self-routing with the next generation automation switch.

Control lighting, light level, curtain / blinds, and air conditioning scenarios.

The thermostat provides energy efficiency by automatically changing the set degree thanks to its operating modes.

Automatically controls areas with integrated temperature sensor.

Thanks to the existing moisture sensor, it can operate the additional ventilation system.



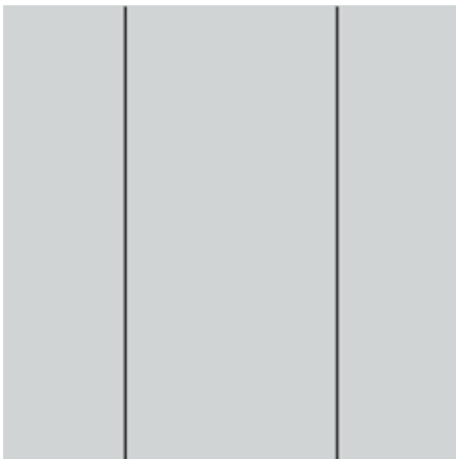
iSwitch / Jet Black / Plastic

Product	Gang	Order Code	Dimensions
iSwitch Jet Black	1	ITR301-0001	90x90mm
iSwitch Jet Black	2	ITR302-0001	90x90mm
iSwitch Jet Black	4	ITR304-0001	90x90mm
iSwitch Jet Black	6	ITR306-0001	90x90mm
iSwitch Jet Black	8	ITR308-0001	90x90mm
iSwitch Jet Black	10	ITR310-0001	90x90mm



iSwitch / Glossy White / Plastic

Product	Gang	Order Code	Dimensions
iSwitch Glossy White	1	ITR301-0002	90x90mm
iSwitch Glossy White	2	ITR302-0002	90x90mm
iSwitch Glossy White	4	ITR304-0002	90x90mm
iSwitch Glossy White	6	ITR306-0002	90x90mm
iSwitch Glossy White	8	ITR308-0002	90x90mm
iSwitch Glossy White	10	ITR310-0002	90x90mm



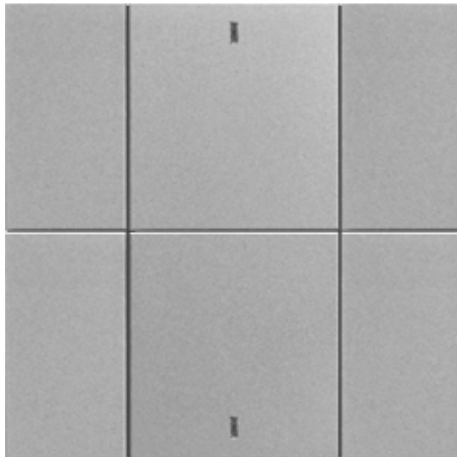
iSwitch / Matt White / Plastic

Product	Gang	Order Code	Dimensions
iSwitch Matt White	1	ITR301-0003	90x90mm
iSwitch Matt White	2	ITR302-0003	90x90mm
iSwitch Matt White	4	ITR304-0003	90x90mm
iSwitch Matt White	6	ITR306-0003	90x90mm
iSwitch Matt White	8	ITR308-0003	90x90mm
iSwitch Matt White	10	ITR310-0003	90x90mm



iSwitch / Anthracite Matt / Plastic

Product	Gang	Order Code	Dimensions
iSwitch Anthracite Matt	1	ITR301-0004	90x90mm
iSwitch Anthracite Matt	2	ITR302-0004	90x90mm
iSwitch Anthracite Matt	4	ITR304-0004	90x90mm
iSwitch Anthracite Matt	6	ITR306-0004	90x90mm
iSwitch Anthracite Matt	8	ITR308-0004	90x90mm
iSwitch Anthracite Matt	10	ITR310-0004	90x90mm



iSwitch / Metallic Gray / Plastic

Product	Gang	Order Code	Dimensions
iSwitch Metallic Gray	1	ITR301-0005	ITR110-0104
iSwitch Metallic Gray	2	ITR302-0005	ITR110-1104
iSwitch Metallic Gray	4	ITR304-0005	
iSwitch Metallic Gray	6	ITR306-0005	
iSwitch Metallic Gray	8	ITR308-0005	
iSwitch Metallic Gray	10	ITR310-0005	

iSwitch / Natural Aluminium

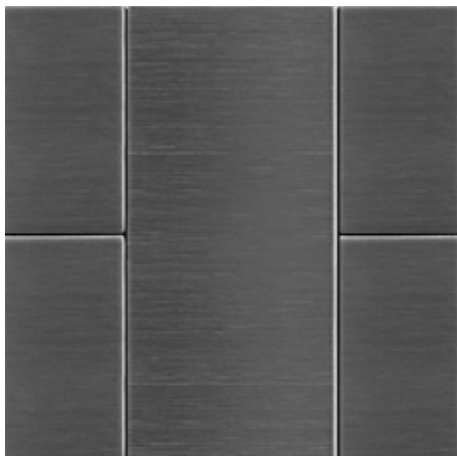
Product	Gang	Order Code	Dimensions
iSwitch Natural Aluminium	1	ITR301-0100	ITR110-0104
iSwitch Natural Aluminium	2	ITR302-0100	ITR110-1104
iSwitch Natural Aluminium	4	ITR304-0100	
iSwitch Natural Aluminium	6	ITR306-0100	
iSwitch Natural Aluminium	8	ITR308-0100	
iSwitch Natural Aluminium	10	ITR310-0100	

iSwitch / Black / Aluminium

Product	Gang	Order Code	Dimensions
iSwitch Black Aluminium	1	ITR301-0101	ITR110-0104
iSwitch Black Aluminium	2	ITR302-0101	ITR110-1104
iSwitch Black Aluminium	4	ITR304-0101	
iSwitch Black Aluminium	6	ITR306-0101	
iSwitch Black Aluminium	8	ITR308-0101	
iSwitch Black Aluminium	10	ITR310-0101	

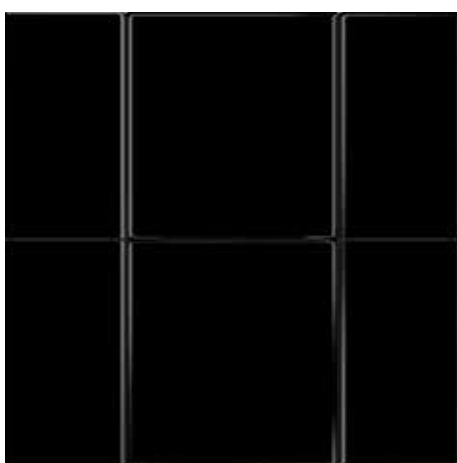
iSwitch / Champagne / Aluminium

Product	Gang	Order Code	Dimensions
iSwitch Champagne Aluminium	1	ITR301-0106	ITR110-0104
iSwitch Champagne Aluminium	2	ITR302-0106	ITR110-1104
iSwitch Champagne Aluminium	4	ITR304-0106	
iSwitch Champagne Aluminium	6	ITR306-0106	
iSwitch Champagne Aluminium	8	ITR308-0106	
iSwitch Champagne Aluminium	10	ITR310-0106	



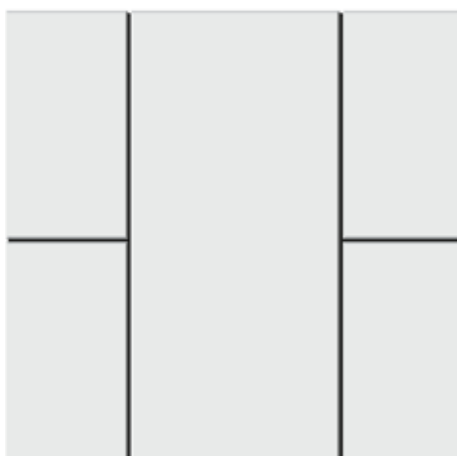
iSwitch / Natural / Stainless Steel

Product	Gang	Order Code
iSwitch Stainless Steel	1	ITR301-0200
iSwitch Stainless Steel	2	ITR302-0200
iSwitch Stainless Steel	4	ITR304-0200
iSwitch Stainless Steel	6	ITR306-0200
iSwitch Stainless Steel	8	ITR308-0200
iSwitch Stainless Steel	10	ITR310-0200



iSwitch / Black /Glass Effect

Product	Gang	Order Code
iSwitch Black GlasEF	1	ITR301-0301
iSwitch Black GlasEF	2	ITR302-0301
iSwitch Black GlasEF	4	ITR304-0301
iSwitch Black GlasEF	6	ITR306-0301
iSwitch Black GlasEF	8	ITR308-0301
iSwitch Black GlasEF	10	ITR310-0301



iSwitch / White /Glass Effect

Product	Gang	Order Code
iSwitch White GlassEF	1	ITR301-0302
iSwitch White GlassEF	2	ITR302-0302
iSwitch White GlassEF	4	ITR304-0302
iSwitch White GlassEF	6	ITR306-0302
iSwitch White GlassEF	8	ITR308-0302
iSwitch White GlassEF	10	ITR310-0302

iSwitch / Bronze Matt /Aluminium Eloxal Brushed

Product	Gang	Order Code
iSwitch Bronze Matt	1	ITR301-0102
iSwitch Bronze Matt	2	ITR302-0102
iSwitch Bronze Matt	4	ITR304-0102
iSwitch Bronze Matt	6	ITR306-0102
iSwitch Bronze Matt	8	ITR308-0102
iSwitch Bronze Matt	10	ITR310-0102

iSwitch



iSwitch / Antique Copper

Product	Gang	Order Code
iSwitch Antique Copper	1	ITR301-0207
iSwitch Antique Copper	2	ITR302-0207
iSwitch Antique Copper	4	ITR304-0207
iSwitch Antique Copper	6	ITR306-0207
iSwitch Antique Copper	8	ITR308-0207
iSwitch Antique Copper	10	ITR310-0207



iSwitch / Antique Bronze

Product	Gang	Order Code
iSwitch Antique Bronze	1	ITR301-0208
iSwitch Antique Bronze	2	ITR302-0208
iSwitch Antique Bronze	4	ITR304-0208
iSwitch Antique Bronze	6	ITR306-0208
iSwitch Antique Bronze	8	ITR308-0208
iSwitch Antique Bronze	10	ITR310-0208



iSwitch-RTR / Jet Black / Plastic

Product	Gang	Order Code
iSwitch Jet Black	2	ITR302-1001
iSwitch Jet Black	4	ITR304-1001
iSwitch Jet Black	8	ITR308-1001



iSwitch-RTR / Glossy White / Plastic

Product	Gang	Order Code
iSwitch Glossy White	2	ITR302-1002
iSwitch Glossy White	4	ITR304-1002
iSwitch Glossy White	8	ITR308-1002



iSwitch-RTR / Matt White / Plastic

Product	Gang	Order Code
iSwitch Matt White	2	ITR302-1003
iSwitch Matt White	4	ITR302-1003
iSwitch Matt White	8	ITR302-1003



iSwitch-RTR / Anthracite Matt / Plastic

Product	Gang	Order Code
iSwitch RTR Anthracite Matt	2	ITR302-1004
iSwitch RTR Anthracite Matt	4	ITR304-1004
iSwitch RTR Anthracite Matt	8	ITR308-1004



iSwitch-RTR / Metallic Gray / Plastic

Product	Gang	Order Code
iSwitch RTR Metallic Gray	2	ITR302-1005
iSwitch RTR Metallic Gray	4	ITR304-1005
iSwitch RTR Metallic Gray	8	ITR308-1005



iSwitch-RTR / Natural / Aluminium

Product	Gang	Order Code
iSwitch RTR Natural Aluminium	2	ITR302-1100
iSwitch RTR Natural Aluminium	4	ITR304-1100
iSwitch RTR Natural Aluminium	8	ITR308-1100



iSwitch-RTR / Champagne / Aluminium

Product	Gang	Order Code
iSwitch RTR Champagne Alum.	2	ITR302-1106
iSwitch RTR Champagne Alum.	4	ITR304-1106
iSwitch RTR Champagne Alum.	8	ITR308-1106



iSwitch-RTR / Natural / Stainless Steel

Product	Gang	Order Code
iSwitch RTR Stainless Steel	2	ITR302-1200
iSwitch RTR Stainless Steel	4	ITR304-1200
iSwitch RTR Stainless Steel	8	ITR308-1200



iSwitch-RTR / Black / Glass Effect

Product	Gang	Order Code
iSwitch Black GlassEF	2	ITR302-1301
iSwitch Black GlassEF	4	ITR304-1301
iSwitch Black GlassEF	8	ITR308-1301



iSwitch-RTR / White / Glass Effect

Product	Gang	Order Code
iSwitch White GlassEF	2	ITR302-1302
iSwitch White GlassEF	4	ITR304-1302
iSwitch White GlassEF	8	ITR308-1302

iSwitch-RTR / Bronze / Aluminium Eloxal Matt Brushed

Product	Gang	Order Code
iSwitch Bronze Aluminium	2	ITR302-1102
iSwitch Bronze Aluminium	4	ITR304-1102
iSwitch Bronze Aluminium	8	ITR308-1102



iSwitch-RTR / Antique Copper

Product	Gang	Order Code
iSwitch Antique Copper	2	ITR302-1207
iSwitch Antique Copper	4	ITR304-1207
iSwitch Antique Copper	8	ITR308-1207



iSwitch-RTR / Antique Bronze

Product	Gang	Order Code
iSwitch Antique Bronze	2	ITR302-1208
iSwitch Antique Bronze	4	ITR304-1208
iSwitch Antique Bronze	8	ITR308-1208

Product	Order Code
iSwitch body gateway	ITR-300-0000

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 (30.2°C sens.) Humidity sensor (32 %RH sens.)
Interfaces	VA-type low power LCD
Commissioning Mode	S-Mode
Type of Protection	IP 20
Temperature Range	Operation (-10°C...70°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.

Functions and 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.

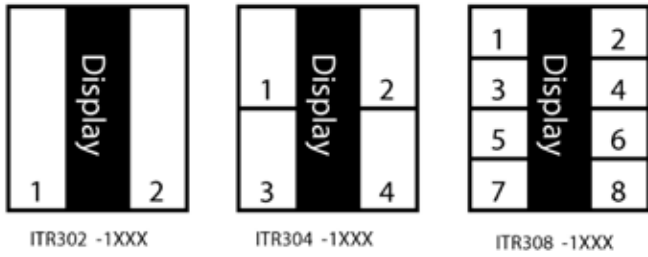
Models and Variations

Coding Standard:

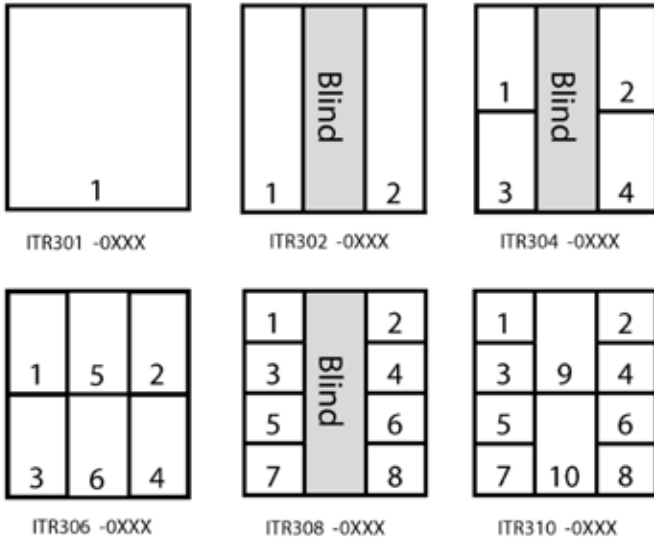
ITR 3XX - XXXX
 ↓ ↓ ↓ ↓ ↓
 A B C D E

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

Models with LCD:

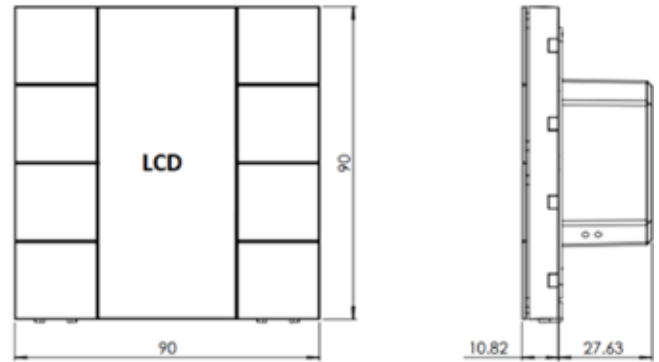


Models without LCD:



Dimensions:

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



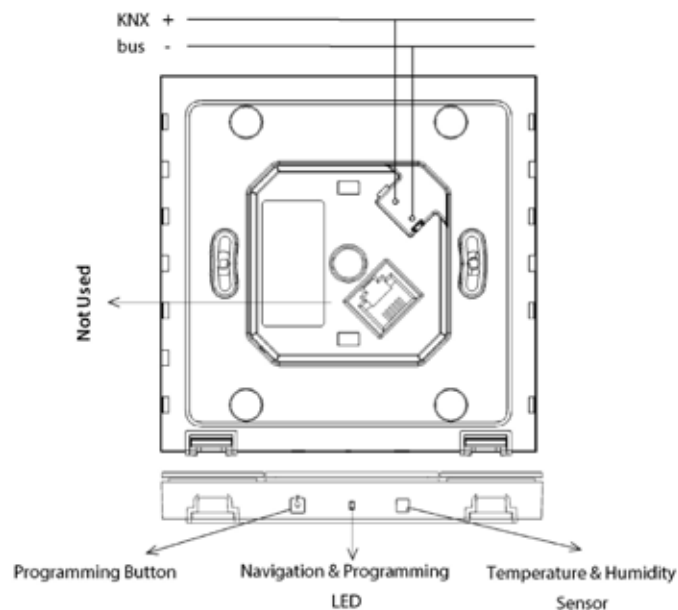
Material and Colour Options:

Material	0	1	2	3
	Plastic	Aluminium	Stainless Steel	Glass
Colours	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			

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 and Programming: Mounting of the BCU:

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.

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:

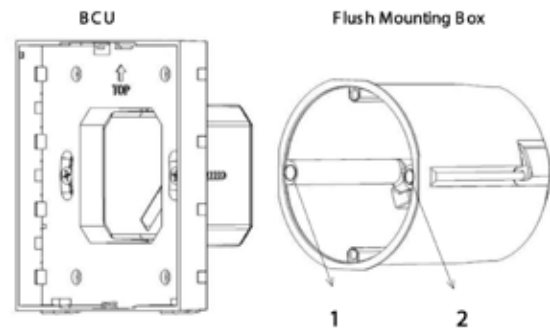
CE: The device complies with Electromagnetic Compatibility Directive (2014/30/EU), Low Voltage Directive (2014/35/EU) and Restricting the Use of Hazardous Substances Directive (2011/65/EU). Tests carried out according to EN 55024, EN 55032, EN 60950-1, EN63044-5-2 and EN61000-4-3 standards.

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.

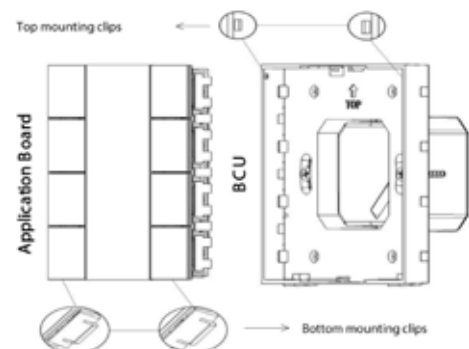


First, the wall flush mounting box installation whether is done properly should be checked.

- 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.



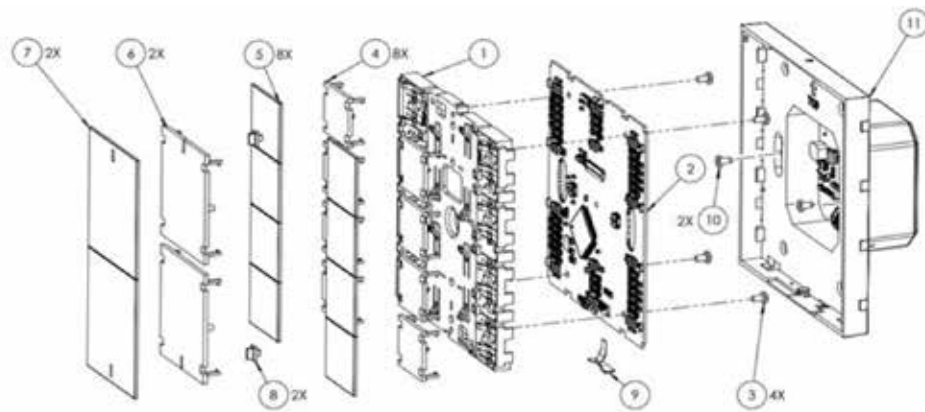
- First, communication connector on the Application board that will be attached to the BCU part.
- Second, when connection is succeeded, Application board is ready to be connected and it must be slightly approached to BCU.
- Third, Application Board should be held at an angle of approximately 45 degrees, 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:

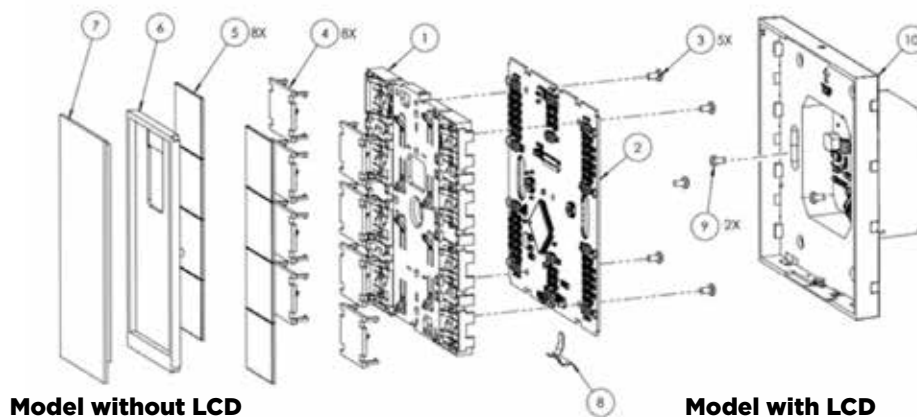
- First, lower side notches pushed backwards from the underside of the device.
- Second, Application Board should be held at an angle of approximately 45° and the top side notches are pulled from the top of the device.
- Third, Application Board's communication connector should be removed from the BCU.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

iSwitch Internal Components:

Model with LCD



Model without LCD



Model without LCD

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)	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	y VA-Type LCD	1
8	Sensor & LED	D Temperature & humidity sensor, navigation & programming LED	1
9	Screw	M2x4 (mm)	2
10	BCU	Common for all models	1



Product	Order Code
USB Socket 2.1A, Mechanism EU SCHUCO	ITR2700271
Grounded Socket (2P+E) With Child Protection, Mechanism + Button EU SCHUCO	ITR2900271
Single socket outlet with side earth - 16A EU SCHUCO	ITR3100171
Double TV/SAT Socket F Type 1dB With Ending, Mechanism + Button EU SCHUCO	ITR3400171
TV-SAT-SAT Sockets, Terminated, 1dB three, Mechanism and Button EU SCHUCO	ITR3600171
1x RJ45 Without Connector, Mechanism + Button EU SCHUCO	ITR4300171-02
2x RJ45 Anthrasit Without Connector, Mechanism + Button EU SCHUCO	ITR4400171-02
1x RJ45 CAT6 UTP Mechanism + Button EU SCHUCO	ITR4700171
2x RJ45 CAT6 UTP Mechanism + Button EU SCHUCO	ITR4800171
1x RJ45 CAT6 UTP + 1xRJ11 Mechanism + Button EU SCHUCO	ITR5200171
Double Speaker Socket, Mechanism + Button EU SCHUCO	ITR5700171
Energy Saver - Mechanical Anthrasit, Mechanism + Button EU SCHUCO	ITR6200171
Energy Saver - Electronic Anthrasit, Mechanism + Button EU SCHUCO	ITR6300171
EU SCHUCO RFID Electronic Energy Saver Mechanism + Button EU SCHUCO	ITR6300271



Product	Order Code
USB Socket 2.1A, Mechanism EU SCHUCO	ITR2700221
Grounded Socket (2P+E) With Child Protection, Mechanism + Button EU SCHUCO	ITR2970221
Single socket outlet with side earth - 16A EU SCHUCO	ITR3170121
Double TV/SAT Socket F Type 1dB With Ending, Mechanism + Button EU SCHUCO	ITR3470121
TV-SAT-SAT Sockets, Terminated, 1dB three, Mechanism and Button EU SCHUCO	ITR3670121
1x RJ45 Without Connector, Mechanism + Button EU SCHUCO	ITR4370521
2x RJ45 Anthrasit Without Connector, Mechanism + Button EU SCHUCO	ITR4470521
1x RJ45 CAT6 UTP Mechanism + Button EU SCHUCO	ITR4770121
2x RJ45 CAT6 UTP Mechanism + Button EU SCHUCO	ITR4870121
1x RJ45 CAT6 UTP + 1xRJ11 Mechanism + Button EU SCHUCO	ITR5270121
Double Speaker Socket, Mechanism + Button EU SCHUCO	ITR5770121
Energy Saver - Mechanical Anthrasit, Mechanism + Button EU SCHUCO	ITR6270121
Energy Saver - Electronic Anthrasit, Mechanism + Button EU SCHUCO	ITR6300221
EU SCHUCO RFID Electronic Energy Saver Mechanism + Button EU SCHUCO	ITR6370121



Product

Order Code

1 pole switch screwless, Mechanism + Button, (Taster) EU
SCHUCO

ITR0100171

2-circuits switch screwless, Mechanism + Button (Taster) EU
SCHUCO

ITR0300171

1 pole 2way switch screwless, Mechanism + Button (Taster) EU
SCHUCO

ITR0400171

Rocker switch button screwless (With Bell Icon), Mechanism + Button EU
SCHUCO

ITR0800171

Rocker switch button (With Light Icon), Mechanism + Button EU
SCHUCO

ITR0900171





Product	Order Code
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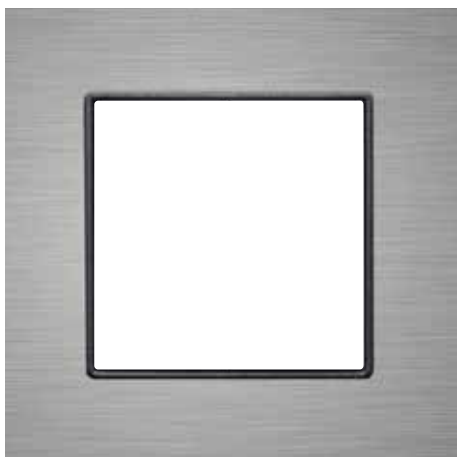
1 pole switch screwless, Mechanism + Button, (Taster) EU SCHUCO	ITR0170121
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2-circuits switch screwless, Mechanism + Button (Taster) EU SCHUCO	ITR0370121
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1 pole 2way switch screwless, Mechanism + Button (Taster) EU SCHUCO	ITR0470121
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Rocker switch button screwless (With Bell Icon), Mechanism + Button EU SCHUCO	ITR0870121
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Rocker switch button (With Light Icon), Mechanism + Button EU SCHUCO	ITR0970121
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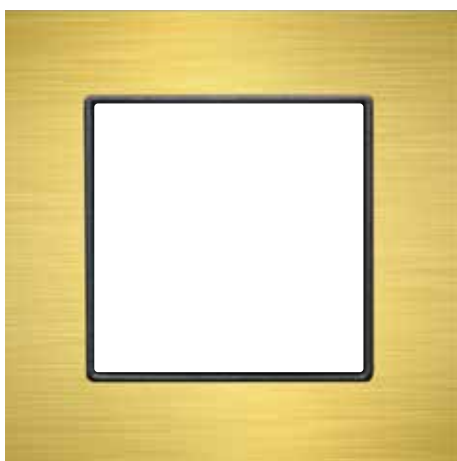
Switch / Socket Framing / Natural / Aluminium

Product	Button	Order Code
Natural Aluminium Frame	1	ITR701-0100
Natural Aluminium Frame	2	ITR702-0100
Natural Aluminium Frame	3	ITR703-0100
Natural Aluminium Frame	4	ITR704-0100
Natural Aluminium Frame	5	ITR705-0100



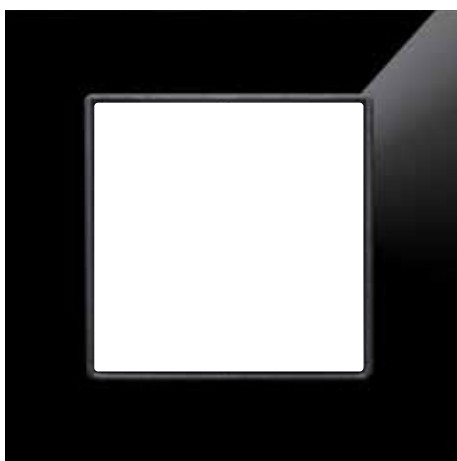
Switch / Socket Framing / Black / Aluminium

Product	Button	Order Code
Black Aluminium Frame	1	ITR701-0101
Black Aluminium Frame	2	ITR702-0101
Black Aluminium Frame	3	ITR703-0101
Black Aluminium Frame	4	ITR704-0101
Black Aluminium Frame	5	ITR705-0101



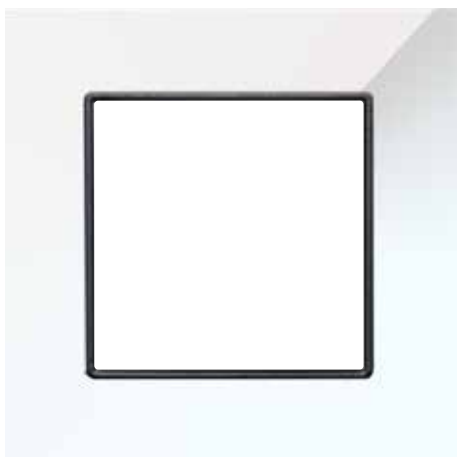
Switch / Socket Framing / Champagne / Aluminium

Product	Button	Order Code
Champagne Aluminium Frame	1	ITR701-0106
Champagne Aluminium Frame	2	ITR702-0106
Champagne Aluminium Frame	3	ITR703-0106
Champagne Aluminium Frame	4	ITR704-0106
Champagne Aluminium Frame	5	ITR705-0106



Switch / Socket Framing / Black / Glass Effect

Product	Button	Order Code
Black GlassEF Frame	1	ITR701-0301
Black GlassEF Frame	2	ITR702-0301
Black GlassEF Frame	3	ITR703-0301
Black GlassEF Frame	4	ITR704-0301
Black GlassEF Frame	5	ITR705-0301



Switch / Socket Framing / White / Glass Effect

Product	Button	Order Code
White GlassEF Frame	1	ITR701-0302
White GlassEF Frame	2	ITR702-0302
White GlassEF Frame	3	ITR703-0302
White GlassEF Frame	4	ITR704-0302
White GlassEF Frame	5	ITR705-0302



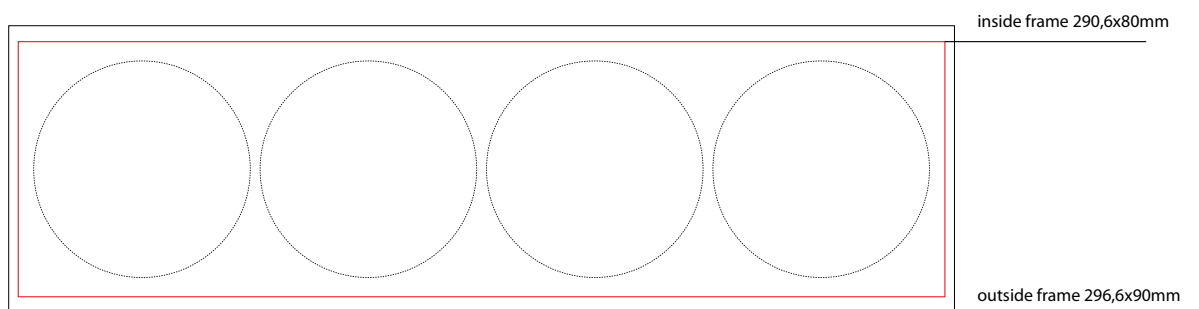
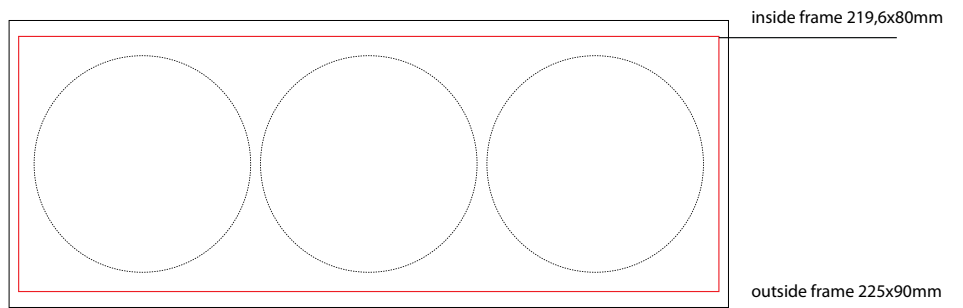
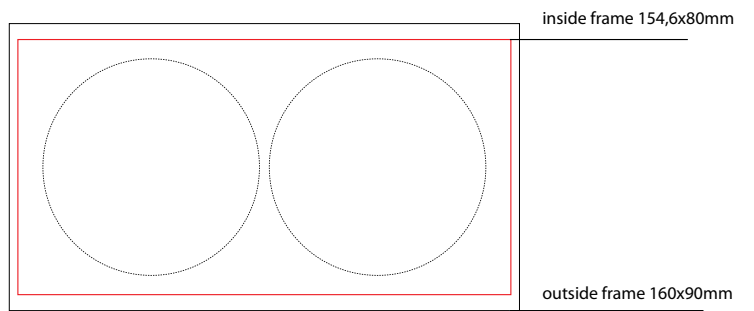
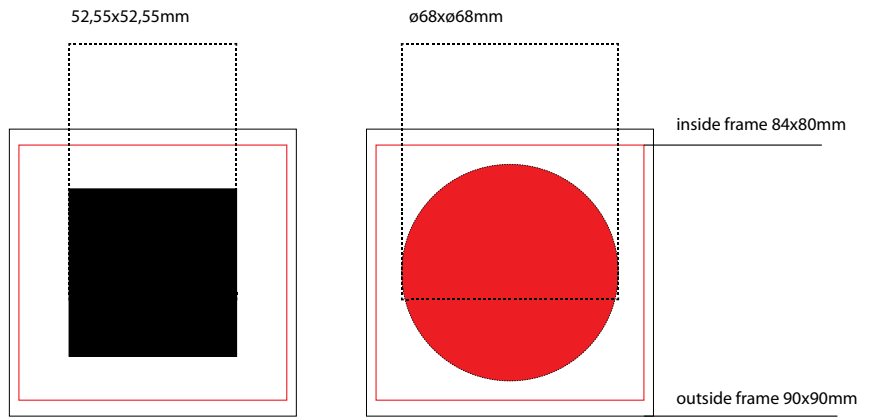
Switch -/ Socket Framing / Antique Bronze

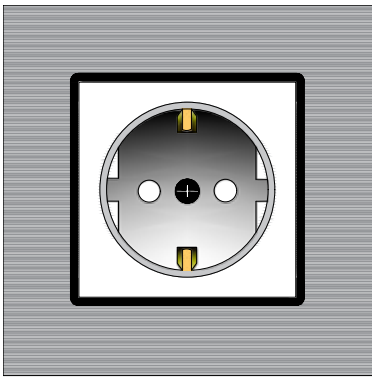
Product	Button	Order Code
Antique Bronze Frame	1	ITR701-0208
Antique Bronze Frame	2	ITR702-0208
Antique Bronze Frame	3	ITR703-0208
Antique Bronze Frame	4	ITR704-0208
Antique Bronze Frame	5	ITR705-0208



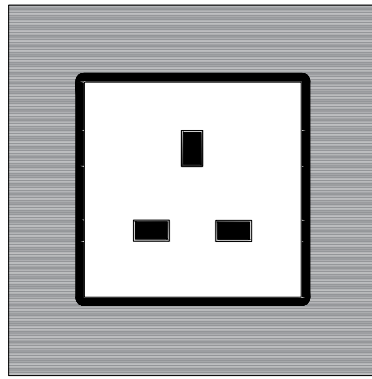
Switch - Socket Framing / Antique Copper

Product	Button	Order Code
Antique Copper Frame	1	ITR701-0207
Antique Copper Frame	2	ITR702-0207
Antique Copper Frame	3	ITR703-0207
Antique Copper Frame	4	ITR704-0207
Antique Copper Frame	5	ITR705-0207

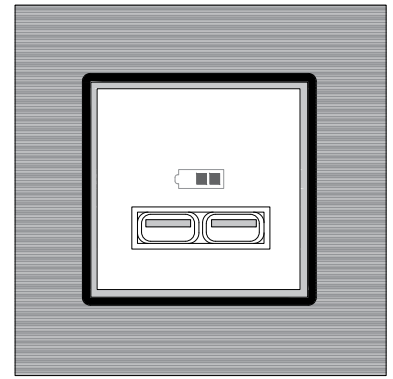




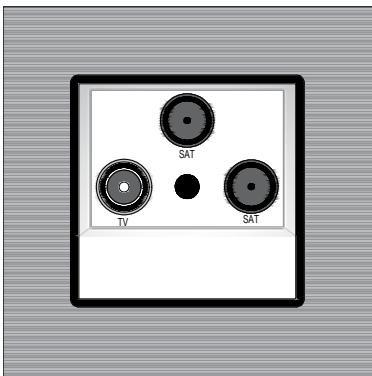
Grounded Socket (2P+E)



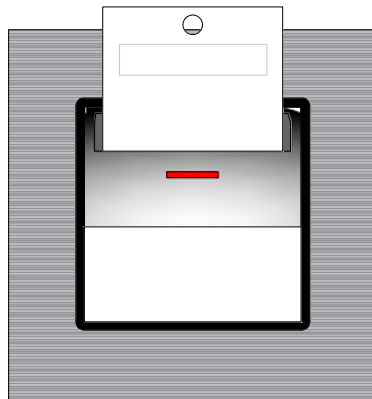
British (Type G) Socket



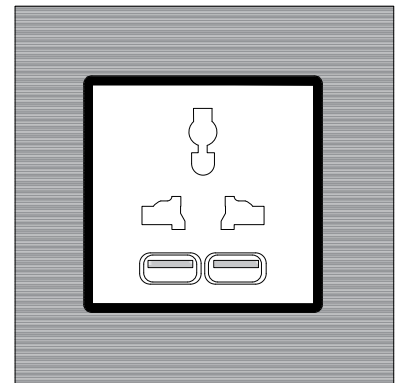
USB Socket 2.1A



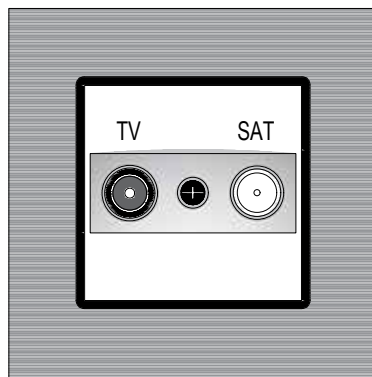
TV-SAT-SAT Sockets



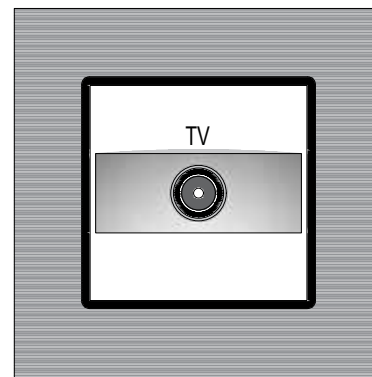
Energy Saver



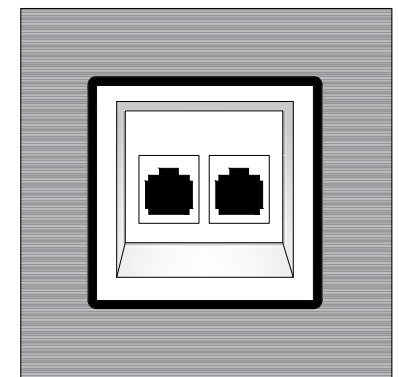
Universal Socket + USB



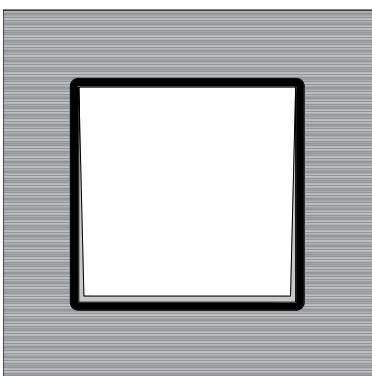
Double TV/SAT Socket F Type



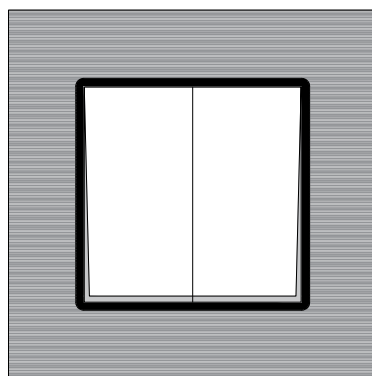
TV Socket



RJ45 CAT6 UTP



Switch (Screwless)



2 Circuits Switch (Screwless)

KNX Combo Actuators



KNX Combo Actutaors



Product

4 Channel Knx Combo Switch Actuator

Order Code

ITR504-16A



Product

8 Channel Knx Combo Switch Actuator

Order Code

ITR508-16A



Product

12 Channel Knx Combo Switch Actuator

Order Code

ITR512-16A



Product

16 Channel Knx Combo Switch Actuator

Order Code

ITR516-16A



Product

20 Channel Knx Combo Switch Actuator

Order Code

ITR520-16A



Product

24 Channel Knx Combo Switch Actuator

Order Code

ITR524-16A

ITR5XX SERIES KNX COMBO SWITCH ACTUATOR



Description

The combo switch actuator is a versatile device which allows a variety of configurations. The combo device is intended to cover every automation requirement in a smart building for safe and efficient operations. The communication of the devices via the KNX bus enables information exchanges with KNX sensors and the integration with a building management system. The combo has been developed for providing the whole controls in the residence and hotel sectors. The usage of this devices guarantees the efficient management and provision of rooms. The manual control of the outputs is possible through the push buttons on the device. It allows the control of the outputs when bus communication failures between devices occur. The combo actuator is supplied with power from the KNX and accordingly does not need any external power supply. The complete configuration of the device is performed via ETS. Type and number of the available objects depend on the settings with ETS.

Functions and Characteristics

Lighting control can be made with every output of the combo switch actuator.

- Heating control can be made with every output of the combo switch actuator.
- Every output of the combo module can be configured as shutter/blind provided that 2 consecutive outputs are available.
- Shutter/blind 24V configuration can be with 4 outputs of the combo module. However, it is only available in the first four outputs of the (*) blocks.
- Fan Coil 2 pipes configuration can be with 4 outputs of the combo module. However, it is only available in the first four outputs of the (*) blocks.
- Fan Coil 4 pipes configuration can be with 5 outputs of the combo module. However, it is only available in the first five outputs of the (*) blocks.
- The functionalities for each output include among other things timing functions, logic gates, scenes, disabling function, forced, working hours counter, periodical monitoring and different configurations for feedback telegrams.
- Last situation memory against power failure

(*): Each block consists of every 6 outputs of the combo module that is starts from C1 output.

Possible blocks : C1-C6 , C7-C12, C13-C18, C19-C24.

Mounting and Safety Instructions

The device may only be installed and put into operation by a qualified electrician or authorized personnel.

- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Do not connect the main voltage (230 VAC) or any other external voltages to any point of the KNX bus.
- Connecting an external voltage might put the KNX system into risk. Please, do not forget to consider this issue.
- Ensure that there is enough insulation between the 230 VAC voltage cables and 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.
- Installation only in dry locations and on a 35 mm DIN rail (TH 35)
- Accessibility of the device for operation and visual inspection must be provided.

Device	ITR500-001
Power Supply	EIB Power Supply
Current Consumption	Max. 20mA
Number of Outputs	4, 8, 12, 16, 20 or 24
Output Current	16A@250 VAC, 120 or 165A inrush current
Commissioning Mode	S-Mode
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Type of Protection	IP 20
Maximum Air Humidity	< 90 RH
Flammability	Non-flammable product
Mounting	DIN Rail
Colour	Light Gray and white
Dimensions	
4/8 outs	105x90x64mm(WxHxD)-> 6 DIN units
12/16 outs	171x90x64mm(WxHxD)->10 DIN units
20/24 outs	274x90x64mm(WxHxD)->15 DIN units
Certification	KNX Certified
Configuration	Configuration with ETS

Combo Output Module Family

Device	Inputs	Outputs	Group Add. (Max)	Assignments (Max)
ITR504	-	4	245	245
ITR508	-	8	245	245
ITR512	-	12	245	245
ITR516	-	16	245	245
ITR520	-	20	245	245
ITR524	-	24	245	245

Combo Output Module Functionality Differences

Device	Number of Converters	Working Hours Counter	Logic Gates
ITR504	4	OK	4
ITR508	4	OK	4
ITR512	4	OK	4
ITR516	8	OK	4
ITR520	8	X	4
ITR524	8	X	4

Connection to KNX Bus & Programming

(1) Physical Address Button
This button is used to give a physical address to devices and to verify the bus presence. The red led switched on means the presence of KNX bus and the device status as physical addressing.

(2) Manual Control Button
Via the push buttons present on the device, the loads connected to outputs can be controlled. This manual control has priority over the commands from the KNX bus.

(3) Status LED
The button LED indicates the status of the outputs. When the green LED is on, the output relays are closed.

(4) KNX Connector
The connection of the KNX bus line is made with the terminal block (block/red) included in delivery and inserted into the slot of housing.

Marks

CE: The device complies with Electromagnetic Compatibility Directive (2004/108/EC) and Low Voltage Directive (2006/95/EC).
Tests are carried out according to EN 60950-1:2007, EN 55022:2012+A2:2012 standards.

ITR500-001 - 6CH 10A BALLAST DIMMING MODULE



Description

ITR500-001 can dimming from 0V to 10V for per channel. The outputs for MAX 10A be switched ON or OFF on every output channel, also can manually switch. Control types include both input and output, so, Absorption and output type ballast can be connected to this module.

Functions and Characteristics

6 Channel 0-10V dimming and maximum 10A relay output for every channel. also can manually switch.

- The switch functions: Statistical total ON time, Status response, Status recovery, Upper limit, Lower limit, Staircase light, Scene control, Scene dimming, Sequence control, Threshold switch, Heating actuator(PWM).

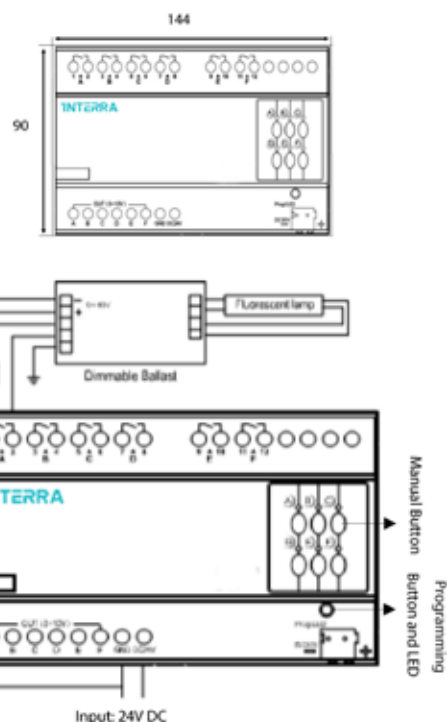
Installation Steps

- Labeling for AC power wires, loads wires and KNX/EIB wire.
- Mount the device on a DIN rail of distribution box.
 - Connect wires for loads.
 - Make sure there is no short circuit or open circuit.
 - Make sure the KNX cable type is correct and has no short circuit.
 - Connect KNX cables. Make sure the color is correct.
 - Tidy the all Wire and separate KNX wire from AC power wire.

Important Notes

- Special Programming: This device is designed for professional KNX installation. It can only be programmed by ETS software.
- Check Connections: Re-tighten all connections after installation.
- Output Circuit: The load on the switched circuits must not exceed the specified capacity of 10A, these circuits should be fed via a 10A fuse/circuit breaker.
- Screw down strength is less than 0.4Nm.
- Rain, liquid and aggressive gas are not allowed to be close to device.
- Do not get AC 240V voltage into Bus wire, it will damage all of devices in system.

Layouts and Wirings



Device	ITR500-001
Power Supply	EIB Power Supply
Current Consumption	10mA
Dimming Output	24mA @ 0-10V DC per channel
Channel Current	10A @ 220-250V AC (50/60Hz)
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Maximum Air Humidity	<90RH
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	90x216x66 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

ITR500-002 - 4CH 1.5A UNIVERSAL DIMMING MODULE



Device	ITR500-002
Power Supply	EIB Power Supply
Current Consumption	10mA
Dimming Power	1.5A max @ 120-240V AC
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Type of Protection	IP 20
Maximum Air Humidity	<90RH
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	90x216x66 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

ITR500-002 has 4 channel 1.5A dimming capability. It has short circuit, over load and heat protection.

Functions and Characteristics

- The Dimmer Module can dimming for 4 channels independent loads.
- Leading Edge dimming or Trailing Edge dimming for dimmer.
- Parallel channels to form a larger current output.
- The dimmers may be used for dimming ordinary incandescent lamps, low voltage halogen lamps and other light sources which support leading or trailing edge technology .
- The module functions: Statistics total ON time, Status response, Status recovery, Over temperature protection, Read temperature, Over temperature alarm, Staircase light, Flashing light, Scene control, Scene dimming, Sequence control, Threshold control, Heating actuator (PWM).
- Short circuit protection, over load protection, over Heat protection.

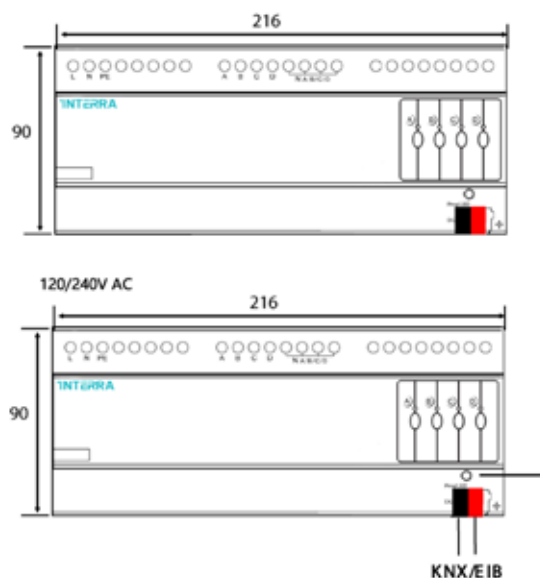
Installation Steps

- Labeling for AC power wires, loads wires and KNX Bus wire.
- Mount the device on a DIN rail of DB.
- Connect wires for loads and AC power.
- Make sure there is no circuit short or open.
- Make sure the KNX cable type is correct and has no circuit short.
- Connect KNX cables. Make sure the color is correct.
- Tidy the all Wire and separate KNX wire from AC power wire.

Important Notes

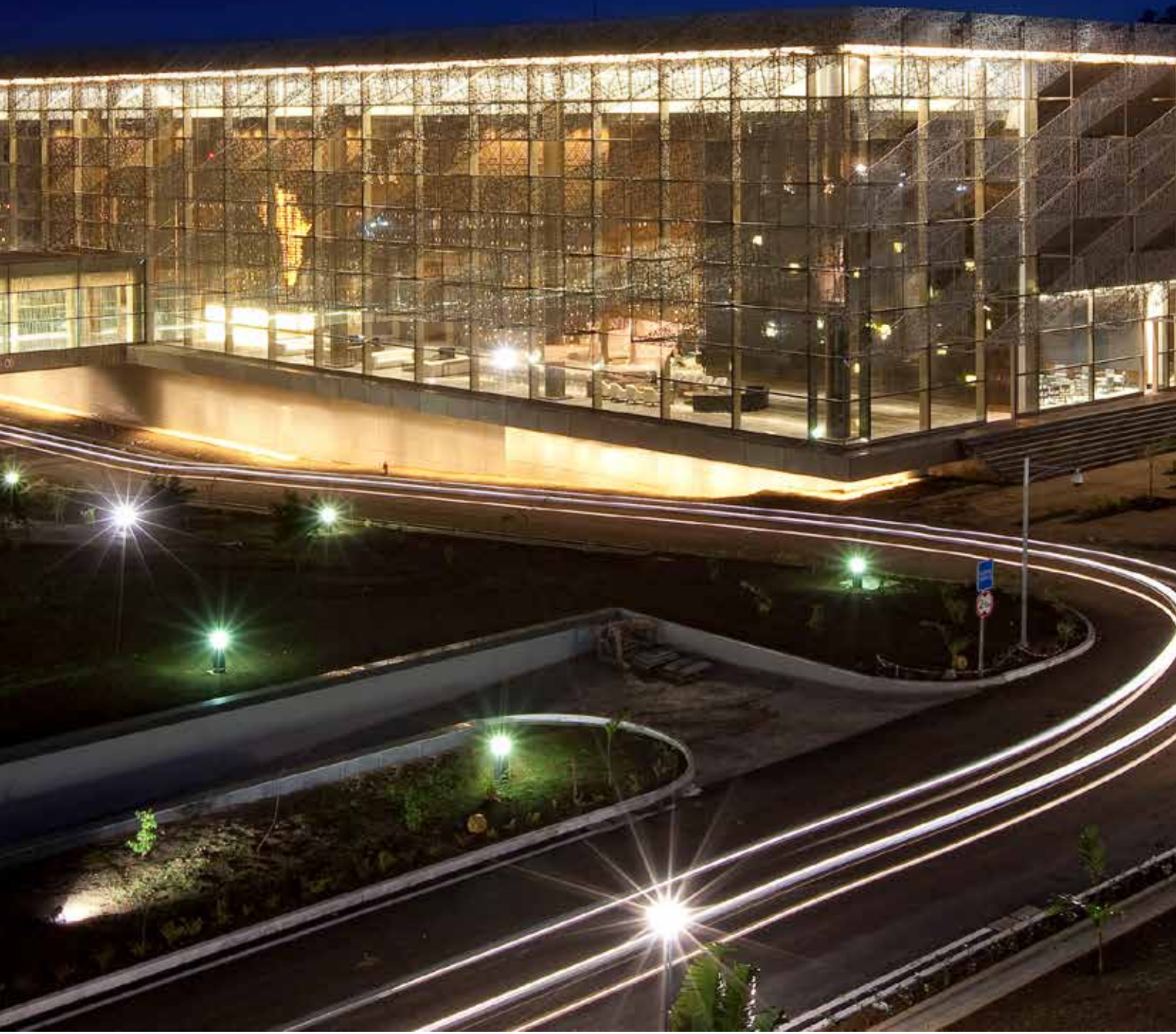
- Special Programming: This device is designed for professional KNX installation. It can only be programmed by ETS software.
- Load type: Incandescent light, halogen, Dimmable LED Light etc.
- Trailing edge Mode is recommended for capacitive resistive.
- Leading edge mode is recommended for inductive load and resistive.
- Check Connections: Re-tighten all connections after installation.
- Output Circuit: Total current should not exceed 6A.
- Screw down strength is less than 0.4Nm.
- Do not get AC 240V voltage into Bus wire, it will damage all of devices in system.

Layouts and Wirings



KNX DALI Gateway

KNX 1x64/2x64 Tunable - White &
Color Control





KNX DALI Gateway

Product

Order Code

KNX 1x64 Tunable - White & Color Control	ITR110-0104
KNX 2x64 Tunable - White & Color Control	ITR110-1104

Device	ITR832-001	ITR832-002
DALI Line Output	1x64, Single Channel	2x64, Dual Channel
Max. ECG Devices	Up to 64 devices (1x64)	Up to 128 devices (2x64)
Display	2x16 LCD Display	2x16 LCD Display
Short-Circuit & Overvoltage Proof	Available	Available
Power Supply	100-240 VAC	100-240 VAC
Power Consumption	6W	13W
DALI Line Current Con.	1x250 mA	2x250 mA
DALI Voltage	Typical 19V DC(12...20.5)	Typical 19V DC(12...20.5)
Network	1xEthernet, 1xKNX and 1xUSB Port	1xEthernet, 1xKNX and 1xUSB Port
Type of Protection	IP 20	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-25°C...55°C)	Operation (-5°C...45°C) Storage (-25°C...55°C)
Max. Air Humidity	< 90 RH	< 90 RH
Flammability	Non-flammable product	Non-flammable product
Color	Light Grey and White	Light Grey and White
Dimensions	90x70x64.5 (HxWxD)	90x70x64.5 (HxWxD)
Certification	KNX Certified	KNX Certified
Configuration	Configuration with ETS	Configuration with ETS

Description

The ITR832-001 & ITR832-002 single and dual channel KNX-DALI interface devices are used to provide interface between DALI and KNX installations, enabling communication between the two protocols. DALI devices (ballasts, etc. ECGs) connected to the line are supplied with the internal DALI power supply. With the ITR832-001 single-channel device up to 1x64 DALI ballasts can be connected, with the ITR832-002 dual-channel device up to 2x64 DALI ballasts can be connected. With each DALI channel, 16 groups, 16 scenarios and 64 devices can be controlled. In addition, independent emergency lighting according to EN 62386-202 will be supported with the 2nd version update. Emergency lighting tests (eg function and time test) can be triggered via the KNX line. In addition, feedback on the KNX line can be sent. Each DALI device

Functions and Characteristics

- Automatic DALI Device Addressing
- Switching, Dimming and Brightness configure.
- Scene Configure
- KNX Bus Voltage Failure Status.
- KNX Voltage Recovery Status.
- DALI Bus Voltage Failure Status.
- DALI Voltage Recovery Status.
- Ballast and / or Lighting Error.
- Working log analysis with UDP.
- Broadcast control can be made with manually and software.
- Tunable White colour temperature control.
- RGB and RGBW colour control.
- Presence Sensor can be connected on DALI line (*).
- Pushbutton switch can be connected on DALI line (*).
- Daylight Sensor can be connected on DALI line (*).

* : **Features will be added in second version of the device.**

Commissioning Functions

Addressing operations can be done via ETS or manual buttons as short address assignment.

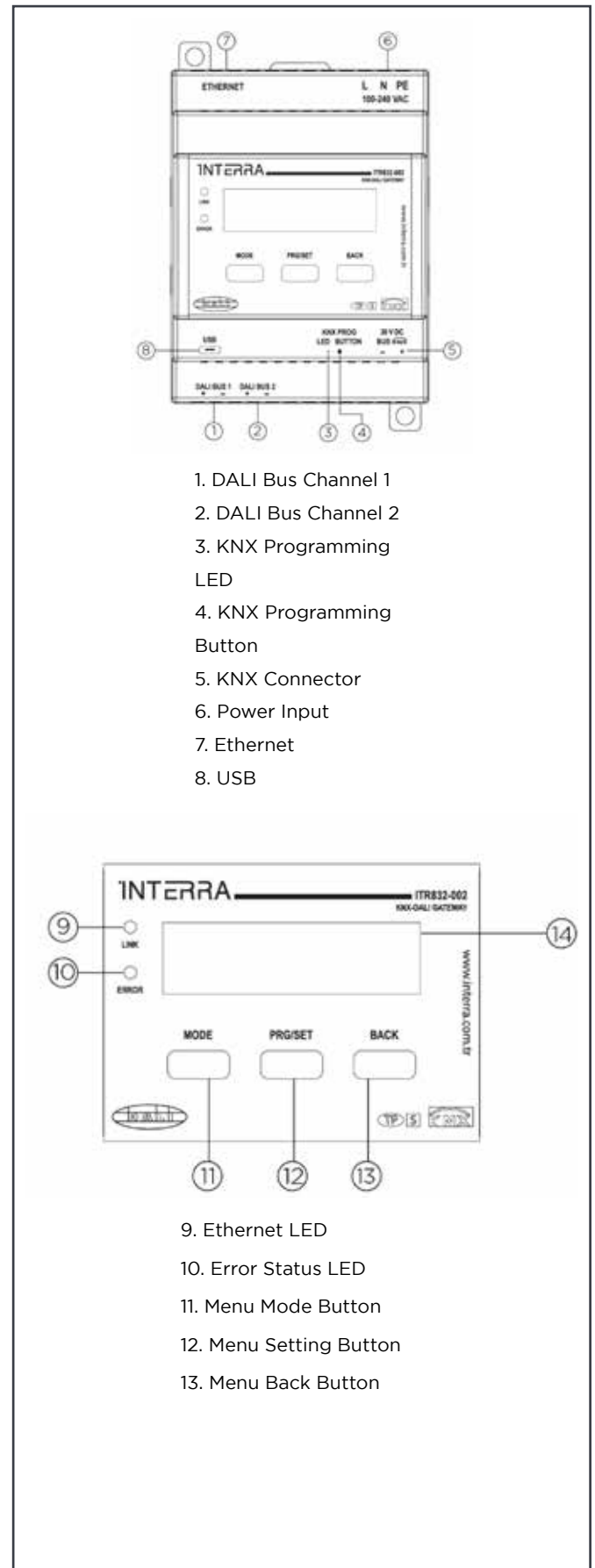
- Assigning group addresses to ballasts via ETS without need additional software.
- Faulty ballast detection.
- Faulty lighting detection.
- Commissioning and control via embedded web server (*).
- DALI line device selection with manual button.
- Remote software update via Ethernet connection.
- Emergency lighting test (according to EN 62386-202 standard)

(*)

Safety Precautions & Important Notes

- The device may only be installed and put into operation by a qualified electrician or authorized personnel.
- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Special Programming: This device is designed for professional KNX and DALI installation. It can be programmed by ETS and Web Browser.
- Cable Connections: Ensure making correct connections for Black and Red wires.
- Input Voltage: The input voltage shall be 100-240 VAC.
- Installation only in dry locations and on a 35 mm DIN rail (TH 35).
- For mounting only use an appropriate equipment according to IEC 60715.
- Rain, liquid and aggressive gas should not allowed to be close to device.
- Screw down strength is less than 0.4Nm.
- Do not get AC 240 V voltage into Bus lines, it can damage all of devices in system.

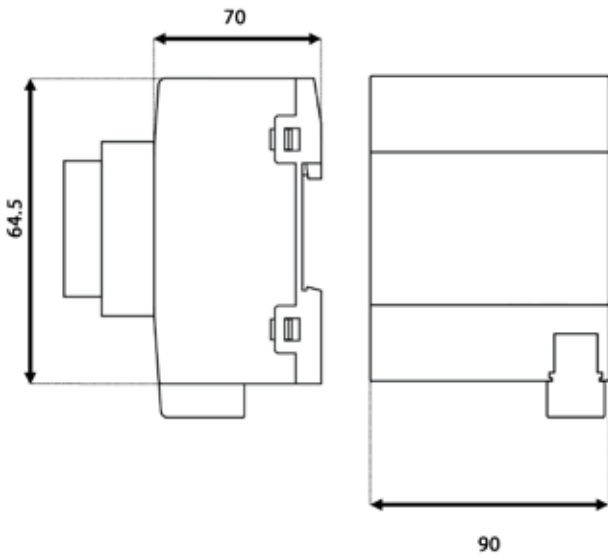
Features of Connectors & Buttons



1. DALI Bus Channel 1
2. DALI Bus Channel 2
3. KNX Programming LED
4. KNX Programming Button
5. KNX Connector
6. Power Input
7. Ethernet
8. USB

9. Ethernet LED
10. Error Status LED
11. Menu Mode Button
12. Menu Setting Button
13. Menu Back Button

Dimensions

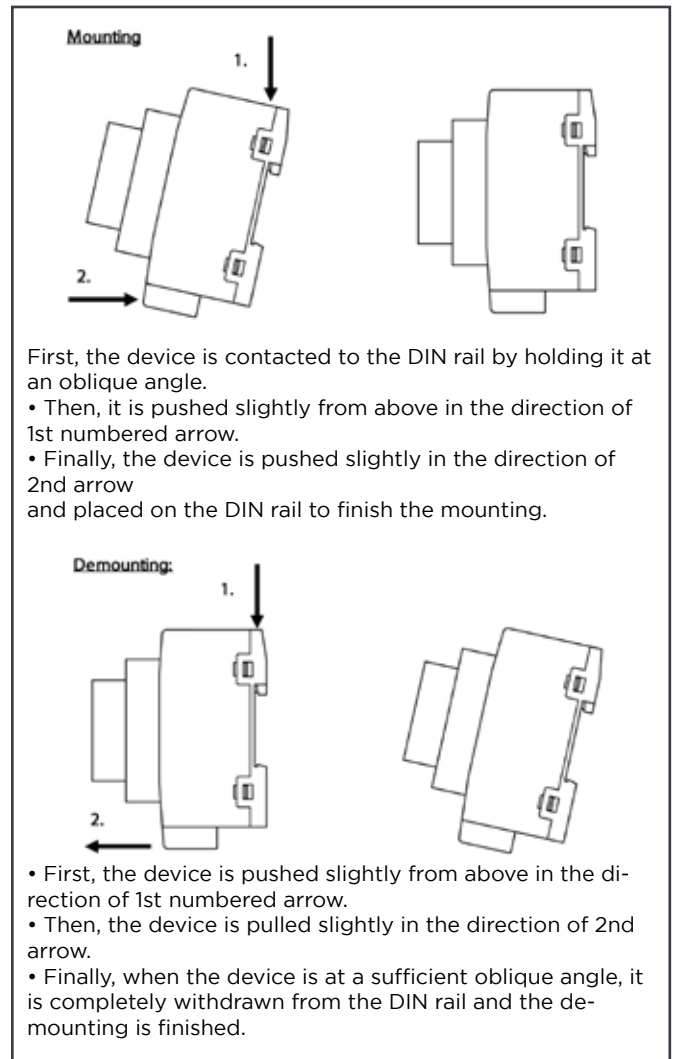


- All values given in the device dimensions are in millimeters.
- The device can be used in an area of up to 4 modules.

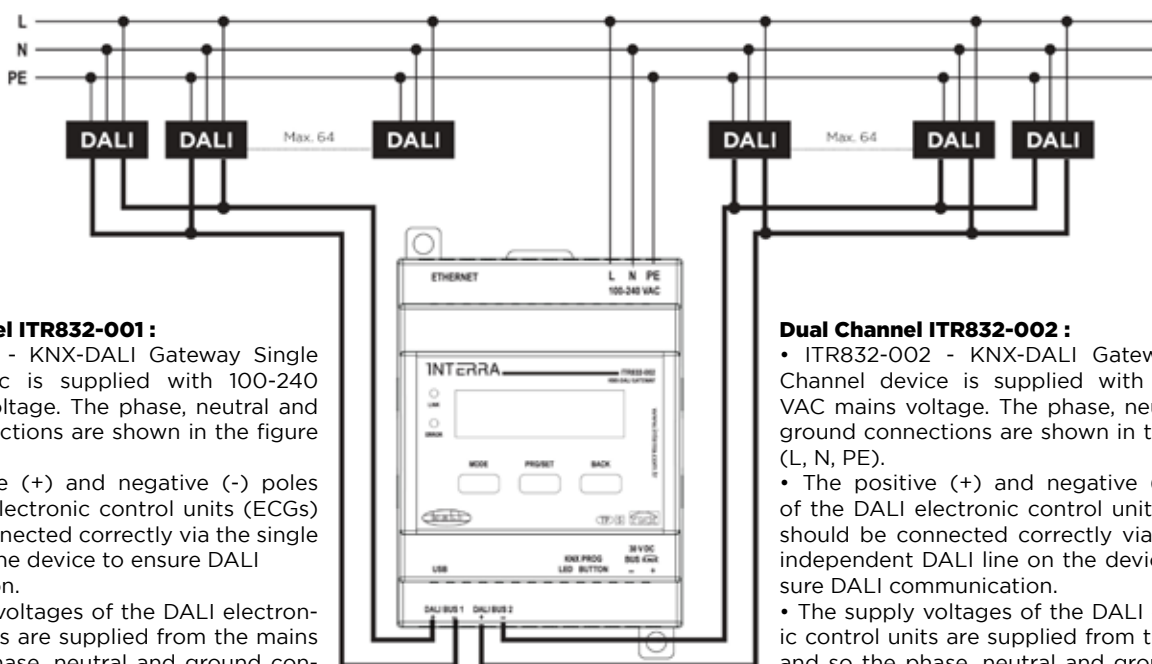
Marks

CE : Interra KNX-DALI Gateway 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).

Mounting & Demounting Processes



Device Connection Diagram:



Single Channel ITR832-001 :

- ITR832-001 - KNX-DALI Gateway Single Channel device is supplied with 100-240 VAC mains voltage. The phase, neutral and ground connections are shown in the figure (L, N, PE).
- The positive (+) and negative (-) poles of the DALI electronic control units (ECGs) should be connected correctly via the single DALI line on the device to ensure DALI communication.
- The supply voltages of the DALI electronic control units are supplied from the mains and so the phase, neutral and ground connections of the ECGs should be properly connected.

Dual Channel ITR832-002 :

- ITR832-002 - KNX-DALI Gateway Dual Channel device is supplied with 100-240 VAC mains voltage. The phase, neutral and ground connections are shown in the figure (L, N, PE).
- The positive (+) and negative (-) poles of the DALI electronic control units (ECGs) should be connected correctly via the two independent DALI line on the device to ensure DALI communication.
- The supply voltages of the DALI electronic control units are supplied from the mains and so the phase, neutral and ground connections of the ECGs should be properly connected.

ITR831-001 - KNX-DMX GATEWAY



Device	ITR831-001
Power Supply	EIB Power Supply
Current Consumption	< 15 mA
Inputs	2x Dry Contact Inputs
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Maximum Air Humidity	< 90 RH
Flammability	Non-flammable Product
Dimensions	72x90x66mm (HxWxD)
Colour	Light Grey and White
Certification	KNX Certified
Configuration	Configuration with ETS

Description

ITR831-001 KNX-DMX Gateway module supports two-way control, and can record, play and delete DMX programs. With recording time up to 4 hours, KNX-DMX Gateway can be widely used to control devices with built-in DMX protocol port for LED color control, such as computer light, moving head light, laser light, etc.

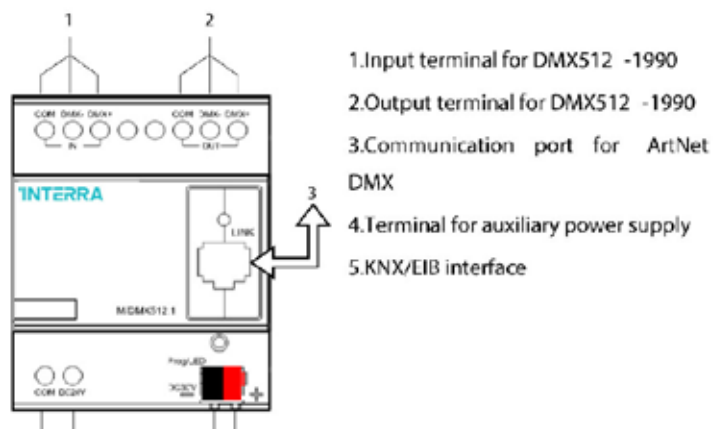
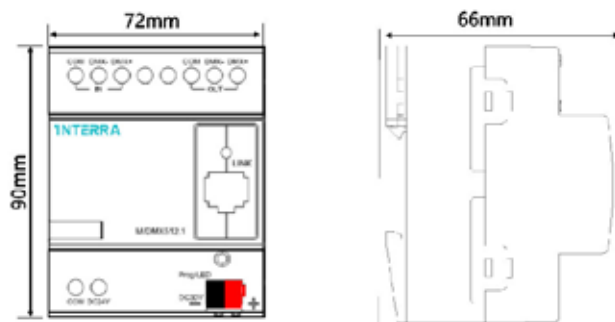
Functions and Characteristics

- 3 working modes: DMX recorder mode, DMX dimming mode (EIB to DMX) and DMX to EIB conversion mode (1bit, 1byte data point)
- Supported communication signal: DMX512-1990, ArtNet DMX
- Store and playback up to 24 programs, maximum recording time: 4 hours
- DMX recorder mode supports switching and dimming up to 48 channels, which means controlling DMX device via KNX system.
- DMX to EIB conversion mode supports switching and absolute dimming via DMX signal for up to 48 channels, which means controlling KNX system via DMX storage control function.
- DMX output signal can be used to control devices with built-in DMX protocol port for LED color control, such as computer light, moving head light, laser light, etc.
- DMX input control functions for KNX system include: Sequence control, Scene control, Switch control, Relative dimming, Absolute dimming.

Important Notes

- Installation: Mount the device on a DIN rail of Distribution box.
- Programming: This device is designed for professional KNX installation. It can only be programmed by ETS software.
- Don't connect KNX DC power to other load channels before KNX Bus installation and wiring.
- Auxiliary power supply: An additional DC 24V power supply should be connected for DMX interface of the module.
- Do not get AC 240V voltage into Bus wire, it will damage all of devices in system.

Layout and Wirings



ITR420-001 - INTERRA IR EMITTER



Device	ITR420-001
Power Supply	EIB Power Supply
Current Consumption	< 15mA
Power Consumption	< 450mw
Current Detection	< 2A
Weight	60g
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Transmitting Wave frequency	38 KHz
Emitting Distance	< 90 RH
Type of Protection	IP 20
Maximum Air Humidity	< 90 RH
Colour	Light Grey and White
Dimensions	45 45x16mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

ITR420-001 The Interra IR Emitter is a multifunctional IR transmitter and it has five functions : Single mode, repeat mode, sequence mode, air-condition control and current detection. The device has 150 universal IR codes at most and 810 AC IR codes at most. Also, it has 4 emitting interfaces A, B, C and D. The Interra IR Emitter is used to control electronic devices such as TV, DVD, Air-Conditioner and other devices can be controlled by IR. Interra products are manufactured in accordance with EU standard for EMC, electrical safety compatibility.

Functions and Characteristics

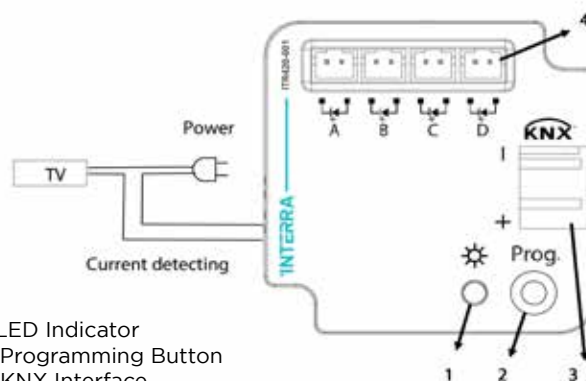
The universal IR codes control TV, DVD and other devices which can be controlled by IR

- The AC IR codes are used for controlling AC devices of any brand.
- Interra IR Emitter supports current detection with current up to 2A.
- The device has several AC control types: Fan speed control, swing control, Cooling/Heating, Temperature control, ON/OFF control.
- After learned, obtained and downloaded the infrared codes through infrared learning page of KNX Assistant Software and IR Learner, the Infrared Emitter can control TV, DVD, air conditioner etc.
- Single mode: System emits one universal IR code and the emitting channel is one channel and multichannel.
- Repeat mode: System emits one universal IR code several times repeatedly and the emitting channel is one channel and multichannel.
- Sequence mode: System emits several universal IR code sequently at one time, but the emitting channel is one channel.
- Air-condition mode: System control air-condition specially, and the emitting channel is one channel.
- Current detection: System detects the current of equipments running

Safety Instructions

- Special Programming - This device is designed for professional KNX installation. It can only be programmed by ETS software.
- Cable Connections - Do not get wrong connection for Black and Red wires.
- Voltage - The bus voltage must be between 21-30VDC.
- Mounting Location - To avoid installed near the air-conditioning vent and forbid to install near large area of metal objects.
- Screw down torque is less than 0.8Nm.
- The IR emission tube should be placed close to the Interra IR Emitter.
- The Interra IR Emitter should be installed close to the power switch when using the current detection. Do not forget to pay attention for safe using.

Layout and Wirings

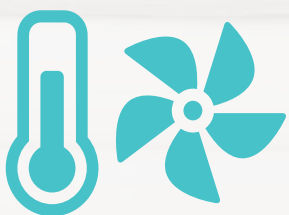


- 1-) LED Indicator
- 2-) Programming Button
- 3-) KNX Interface
- 4-) IR Emission Channels

INTERRA

CERTIFIED R&D CENTER OF AUTOMATION

Developer of Uniqueness



INTERRA Air Conditioning Solutions
KNX Air Conditioning Gateways

'INTERRA

CERTIFIED R&D CENTER OF AUTOMATION
Developer of Uniqueness

KNX Air Conditioning Gateways

With **INTERRA**, all air conditioners are now smart ...

interratechnology.com





KNX Air Conditioning Gateway / Mitsubishi Electric

Product Order Code

Mitsubishi Electric VRV / AC - KNX Gateway ITR830-001



KNX Air Conditioning Gateway / Mitsubishi Heavy

Product Order Code

Mitsubishi Heavy VRV / AC Gateway ITR830-004



KNX Air Conditioning Gateway / Samsung

Product Order Code

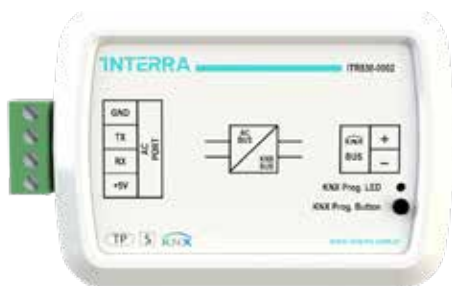
Samsung AC - KNX Gateway 1 Channel ITR830-005-01
 Samsung AC - KNX Gateway 1-4 Channel ITR830-005-04
 Samsung AC - KNX Gateway 4-8 Channel ITR830-005-08
 Samsung AC - KNX Gateway 8-16 Channel ITR830-005-16
 Samsung AC - KNX Gateway 16-32 Channel ITR830-005-32



KNX Air Conditioning Gateway / Daikin

Product Order Code

Daikin Sky & VRV AC - KNX Gateway ITR830-003



KNX Air Conditioning Gateway / Daikin Split

Product Order Code

Daikin Sky & VRV AC - KNX Gateway ITR830-002



KNX Air Conditioning Gateway / Viessmann

Product Order Code

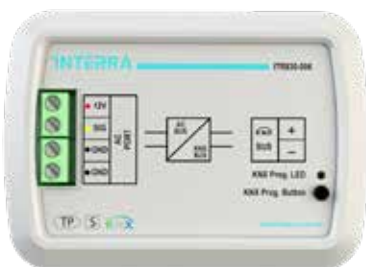
Viessmann VRV / AC - KNX Gateway ITR830-008



KNX Air Conditioning Gateway / Viessmann

Product Order Code

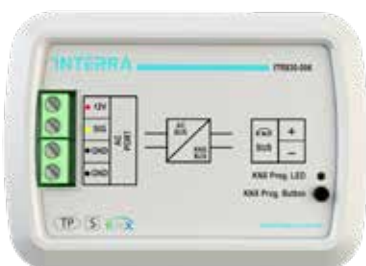
Vaillant VRV / AC - KNX Gateway ITR830-010



KNX Air Conditioning Gateway / LG

Product Order Code

LG VRV / AC - KNX Gateway ITR830-006



KNX Air Conditioning Gateway / Beko

Product Order Code

Beko KNX Gateway ITR830-006



KNX Air Conditioning Gateway / Arçelik

Product Order Code

Arçelik KNX Gateway ITR830-007



DemirDöküm

KNX Air Conditioning Gateway / Demir Döküm

Product

Order Code

Demir Döküm & VRV AC - KNX Gateway

ITR830-011



GREE

KNX Air Conditioning Gateway / Gree

Product

Order Code

Gree & VRV AC - KNX Gateway

ITR830-009

Comfort in your hand

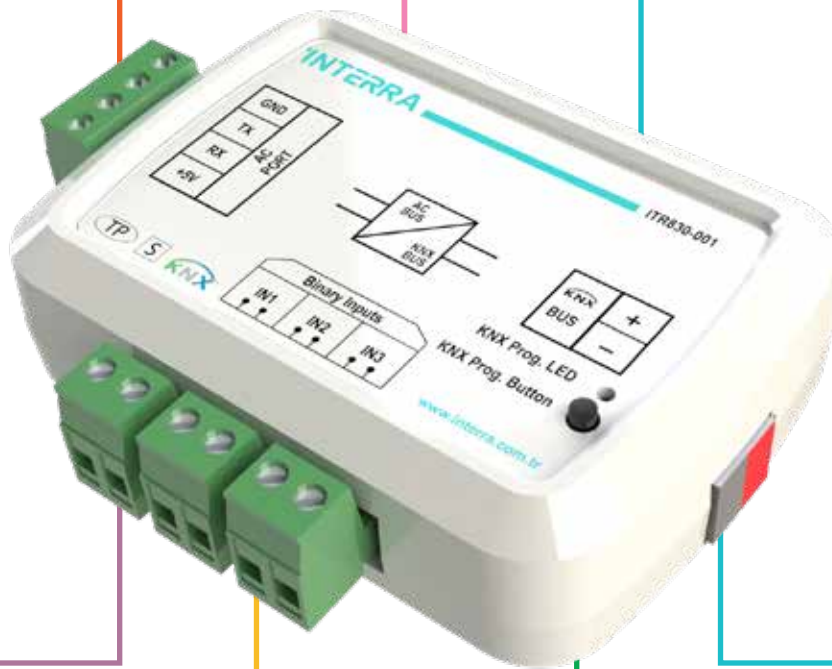
You can organize heating / cooling, summer mode, winter mode, graded scenarios that will make you feel special.

Energy-saving

You can save energy thanks to smart operation mode and smart room heating / cooling modes.

Mobile Access

You can remotely control it with Android and IOS mobile devices at any time, and you can turn on / off, heating / cooling your air conditioner near your home. You can experience comfort and energy saving together.



Timer scenarios

You can control your air conditioner with mobile access, you can make yourself feel special by arranging on / off, gradual heating / cooling scenarios at any time.

5 Operation Mode

- > On / Off
- > Working mode
- > Temperature control
- > Fan level control
- > Wing position control

Special for your customers scenarios

By creating special room temperature scenarios for your customers, you can experience the 5-star comfort effect.

Bidirectional communication privilege

It does not leave a question mark in your mind by notifying you whether all the commands you have given with mobile access are applied or not.

ITR830-001 - MITSUBISHI ELECTRIC AC - KNX GATEWAY



Description

ITR830-001 is used for monitoring and control all the functioning parameters of Mitsubishi Electric air conditioners with KNX and ITR830-001 is compatible with models in PAC, RAC and City Multi VRF and Industrial types categorized in compatibility list sold by Mitsubishi Electric. ITR830-001 has easy installation feature. It can be installed inside the own AC indoor unit, it connects one side directly to the electronic circuit of the AC indoor unit (cable supplied) and in the other side directly to the KNX bus.

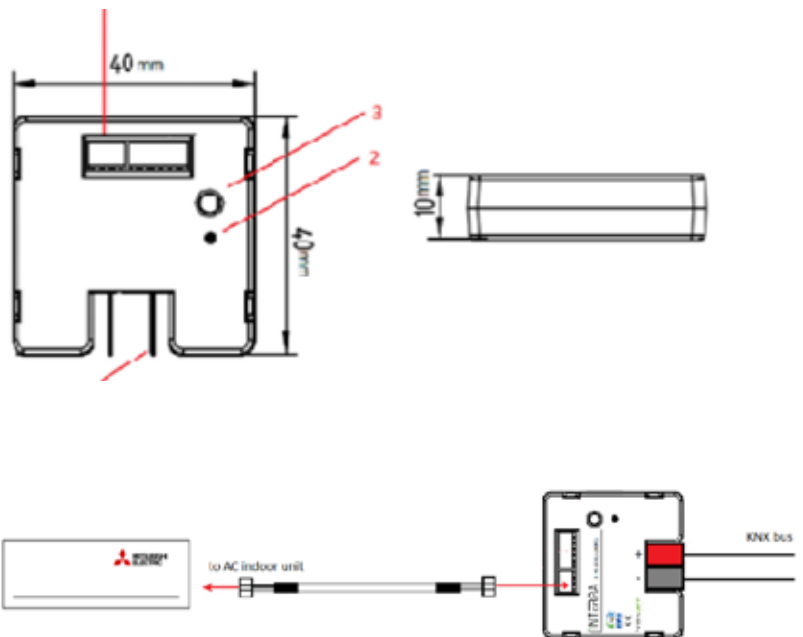
Functions and Characteristics

TR830-001 device, provides complete bi-directional integration of Mitsubishi Electric AC with KNX bus.

- The device provides extra communication objects for giving maximum flexibility.
- Includes 4 logical and 8 converter advanced parameters for energy savings, configurable scenes, temperature limits etc.
- The AC unit provides error notifications for errors that may occur in exceptional cases.

Device	ITR830-001
Power Supply	EIB Power Supply
Power Consumption	10mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (-10°C...70°C) Storage (-25°C...100°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	40x10x40 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS

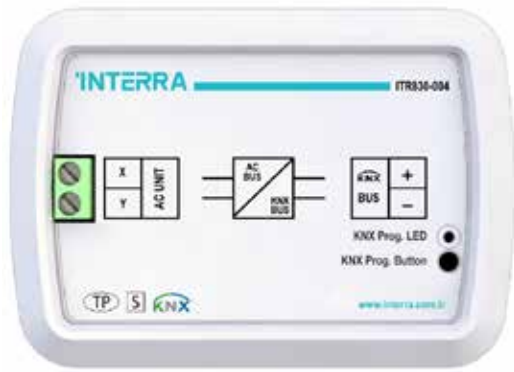
Connection Diagram:



1. KNX Connector
2. Programming LED
3. Programming Button
4. AC Indoor Unit connection

Connection cable supplied with the gateway device. It directly connects to indoor unit's control board which marked as CN105 or CN92 connector.

ITR830-004 - Mitsubishi Heavy Industries AC - KNX Gateway



Description

ITR830-004 is a air conditioner gateway that used for monitoring and control all the functioning parameters of Mitsubishi Heavy Industries air conditioners via KNX bus line. Mitsubishi Heavy Industries AC - KNX Gateway is compatible with models in DVM S, ERV(NASA), CAC (NASA), EHS (NASA) types categorized in compatibility list sold by Mitsubishi Heavy Industries.

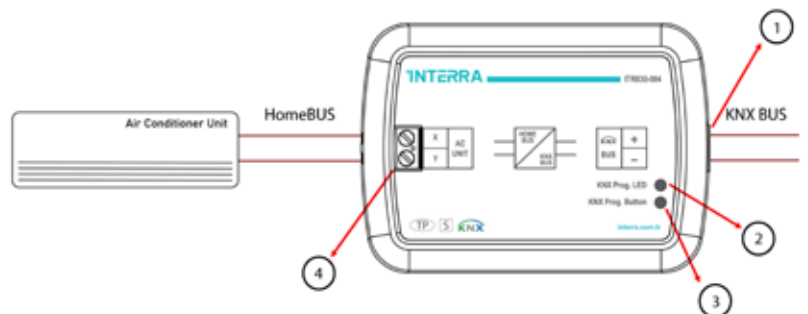
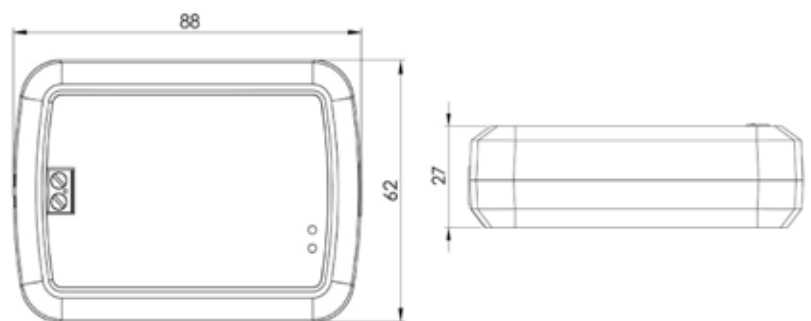
Mitsubishi Heavy Industries AC - KNX Gateway has easy installation feature and can be installed inside the own AC indoor unit or a proper location away from the air conditioner, it connects one side directly to the electronic circuit of the AC indoor unit and in the other side directly to the KNX bus.

Note : Existing commands may vary according to indoor unit model. Please refer to relevant technical documents.

Functions and Characteristics

- ITR830-004 device, provides complete bi-directional integration of FD & VRF type air conditioners with KNX bus.
- Includes 4 logical advanced parameters, each logical parameter have up to 4 inputs and can be configured as AND, OR & XOR.
- Includes 8 advanced converter parameters, each converter has four operations math calculations according to input type.
- Logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.
- The Mitsubishi Heavy Industries air conditioner unit provides error notifications for errors that may occur in exceptional cases.

Dimensions and Connection Diagram:



1. KNX Connector
2. Programming LED
3. Programming Button
4. AC Indoor Unit connection

Device	ITR830-001
Power Supply	EIB Power Supply
Power Consumption	10mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (-10°C...70°C) Storage (-25°C...100°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	88x62x27 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS

ITR830-005 - SAMSUNG NASA AC - KNX GATEWAY



Description

ITR830-005 is an air conditioner gateway that used for monitoring and control all the functioning parameters of Samsung NASA air conditioners via KNX bus line.

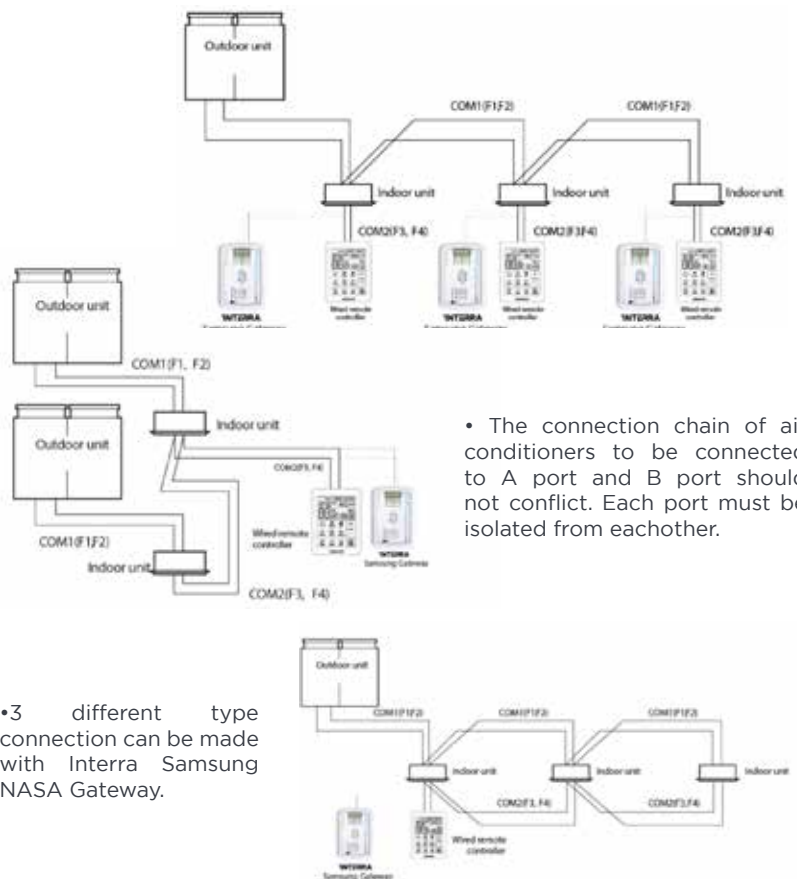
Samsung NASA AC - KNX Gateway has easy installation feature and can be installed inside the own AC indoor unit or a proper location away from the air conditioner, it connects one side directly to the electronic circuit of the AC indoor unit and in the other side directly to the KNX bus. In addition, according to the model number, Samsung NASA Gateways can control 1, 1-4, 4-8, 8-16 or 16-32 number of air conditioners at the same time. Besides, logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.

Note : The air conditioner must remaining off while at mode transitions between heating and cooling.

Functions and Characteristics

- ITR830-005 device, can control air conditioners synchronously with multicast functionality or independent of each other.
- Includes 4 logical advanced parameters, each logical parameter have up to 4 inputs and can be configured as AND, OR & XOR.
- Includes 8 advanced converter parameters, each converter has four operations math calculations according to input type.
- Logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.
- Samsung NASA air conditioner unit provides error notifications for errors that may occur in exceptional cases.
- Air conditioners 1-16 should be connected to port A, and air conditioners 16-32 to port b. However, a and b ports must be isolated from each other.

Connection Diagram:



- The connection chain of air conditioners to be connected to A port and B port should not conflict. Each port must be isolated from each other.

• 3 different type connection can be made with Interra Samsung NASA Gateway.

Device	ITR830-005
Power Supply	EIB Power Supply
Power Consumption	10mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (-10°C...70°C) Storage (-25°C...100°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	88x62x27 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS
Cable Distance	Max 300 m

ITR830-003 - DAIKIN SKY & VRV AC - KNX GATEWAY



Description

ITR830-003 is a air conditioner gateway that used for monitoring and control all the functioning parameters of Daikin Industries air conditioners via KNX bus line. Daikin Sky & VRV AC - KNX Gateway is compatible with models in Sky & VRV types categorized in compatibility list sold by Daikin Industries.

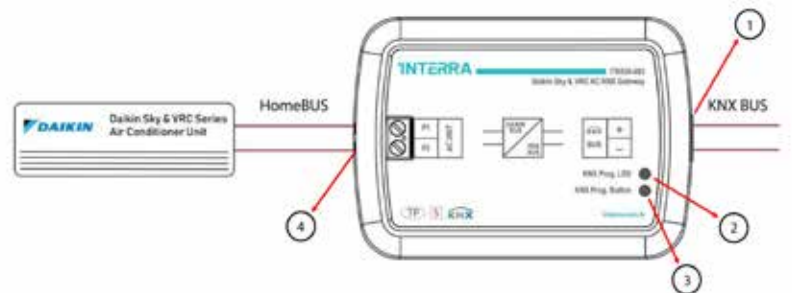
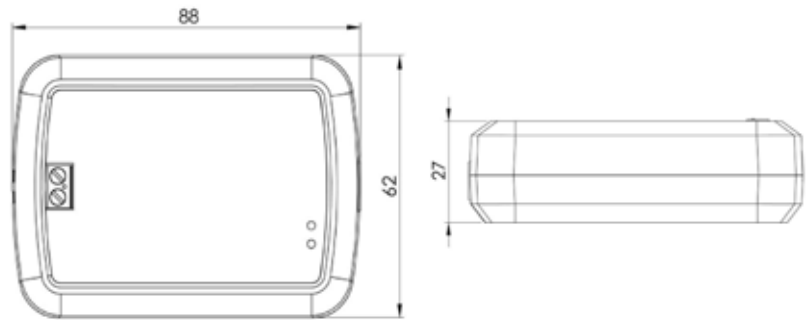
Daikin Sky & VRV AC - KNX Gateway has easy installation feature and can be installed inside the own AC indoor unit or a proper location away from the air conditioner, it connects one side directly to the electronic circuit of the AC indoor unit and in the other side directly to the KNX bus.

Functions and Characteristics

ITR830-003 device, provides complete bi-directional integration of Daikin Sky & VRV air conditioners with KNX bus.

- Includes 4 logical advanced parameters, each logical parameter have up to 4 inputs and can be configured as AND, OR & XOR.
- Includes 8 advanced converter parameters, each converter has four operations math calculations according to input type.
- Logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.
- The Daikin air conditioner unit provides error notifications for errors that may occur in exceptional cases.

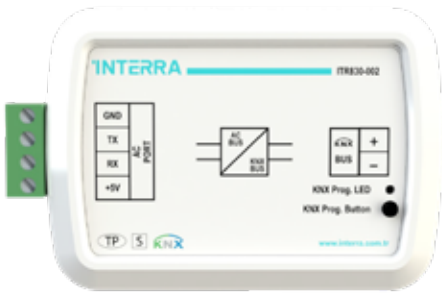
Dimensions and Connection Diagram:



1. KNX Connector
2. Programming LED
3. Programming Button
4. AC Indoor Unit connection

Device	ITR830-003
Power Supply	EIB Power Supply
Power Consumption	20mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (-10°C...70°C) Storage (-25°C...100°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	88x62x27 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS

ITR830-003 - DAIKIN SKY & VRV AC - KNX GATEWAY



Description

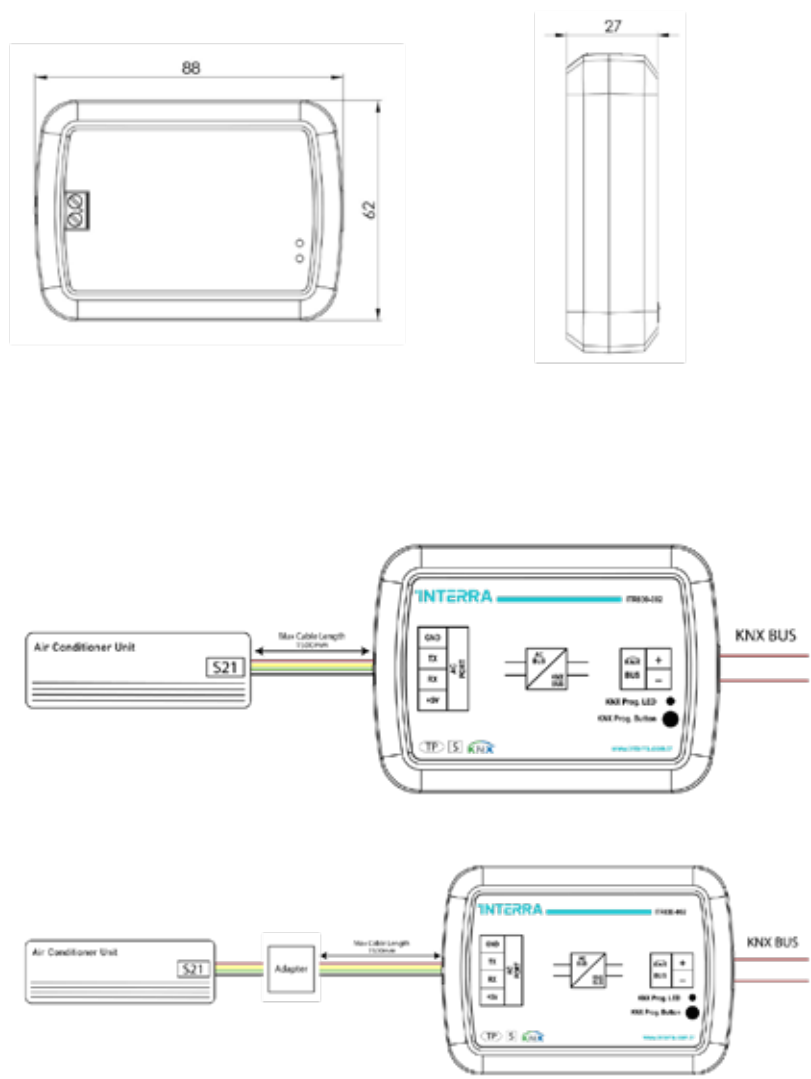
ITR830-002 is an air conditioner gateway that used for monitoring and control all the functioning parameters of Daikin Industries air conditioners via KNX bus line. Daikin Split AC - KNX Gateway is compatible with models in split types categorized in compatibility list sold by Daikin Industries. Daikin Split AC - KNX Gateway has easy installation feature and can be installed inside the own AC indoor unit or a proper location away from the air conditioner, it connects one side directly to the electronic circuit of the AC indoor unit and in the other side directly to the KNX bus.

Functions and Characteristics

- ITR830-002 device, provides complete bi-directional integration of Daikin Split air conditioners with KNX bus.
- Includes 4 logical advanced parameters, each logical parameter have up to 4 inputs and can be configured as AND, OR & XOR.
- Includes 8 advanced converter parameters, each converter has four operations math calculations according to input type.
- Logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.
- The Daikin air conditioner unit provides error notifications for errors that may occur in exceptional cases.

Dimensions & Connection Diagram

Device	ITR830-002
Power Supply	EIB Power Supply
Power Consumption	10mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (-10°C...70°C) Storage (-25°C...100°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	88x62x27 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS



ITR830-006 - LG AC - KNX GATEWAY



Description

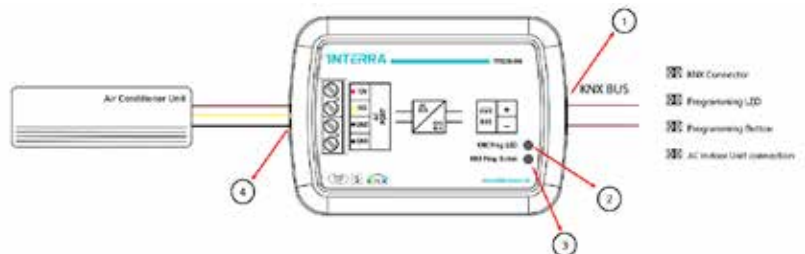
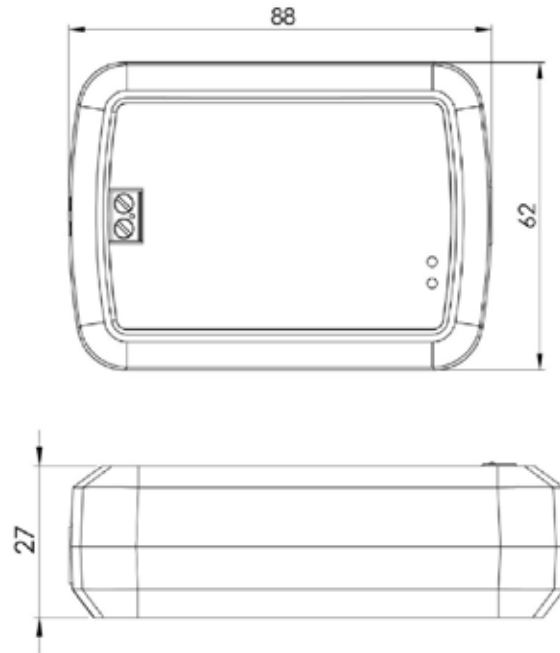
ITR830-006 is a air conditioner gateway that used for monitoring and control all the functioning parameters of LG air conditioners via KNX bus line. LG AC - KNX Gateway is compatible with models in single, multi, multi-f, multi-f and VRF types categorized in compatibility list sold by LG. LG AC - KNX Gateway has easy installation feature and can be in-stalled inside the own AC indoor unit or a proper location away from the air conditioner, it connects one side directly to the electronic circuit of the AC indoor unit and in the other side directly to the KNX bus.

Functions and Characteristics

ITR830-006 device, provides complete bi-directional integration of LG air conditioners with KNX bus.

- Includes 4 logical advanced parameters, each logical parameter have up to 4 inputs and can be configured as AND, OR & XOR.
- Includes 8 advanced converter parameters, each converter has four operations math calculations according to input type.
- Logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.
- The LG AC - KNX gateway provides error notifications for errors that may occur in exceptional cases.

Device	ITR830-006
Power Supply	EIB Power Supply
Power Consumption	10mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (0°C...40°C) Storage (-10°C...70°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	88x62x27 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS



ITR830-007 - ARCELIK AC - KNX GATEWAY



Device	ITR830-007
Power Supply	EIB Power Supply
Power Consumption	10mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (0°C...40°C) Storage (-10°C...70°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	88x62x27 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS

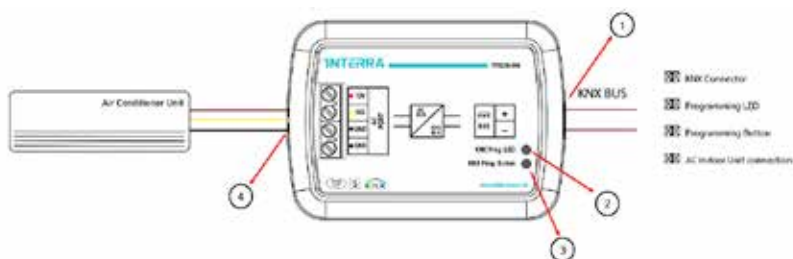
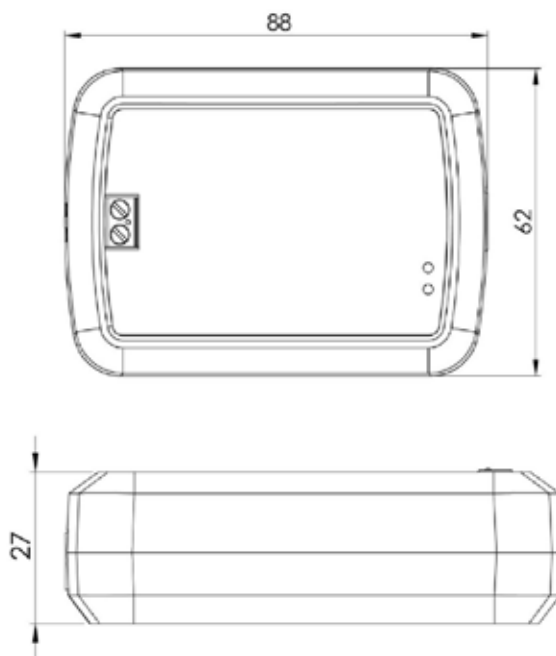
Description

ITR830-007 is a air conditioner gateway that used for monitoring and control all the functioning parameters of Arcelik air conditioners via KNX bus line. Arcelik AC - KNX Gateway is compatible with models in several types categorized in compatibility list by Arcelik.

Arcelik AC - KNX Gateway has easy installation feature and can be installed inside the own AC indoor unit or a proper location away from the air conditioner, it connects one side directly to the electronic circuit of the AC indoor unit and in the other side directly to the KNX bus.

Functions and Characteristics

- ITR830-007 device, provides complete bi-directional integration of Arcelik air conditioners with KNX bus.
- Includes 4 logical advanced parameters, each logical parameter have up to 4 inputs and can be configured as AND, OR & XOR.
- Includes 8 advanced converter parameters, each converter has four operations math calculations according to input type.
- Logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.
- The Arcelik AC - KNX gateway provides error notifications for errors that may occur in exceptional cases.



ITR830-006 - BEKO AC KNX GATEWAY



Device	ITR830-006
Power Supply	EIB Power Supply
Power Consumption	10mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 x KNX Programming LED
Type of Protection	IP 20
Mode of Commissioning	S-Mode
Maximum Air Humidity	<90RH
Temperature Range	Operation (0°C...40°C) Storage (-10°C...70°C)
Flammability	Non-flammable product
Colour	Light Gray
Dimensions	88x62x27 mm (WxHxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

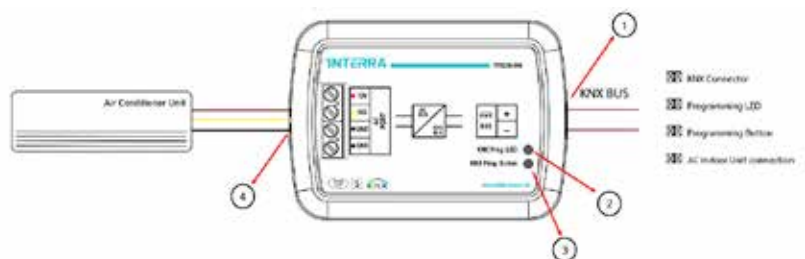
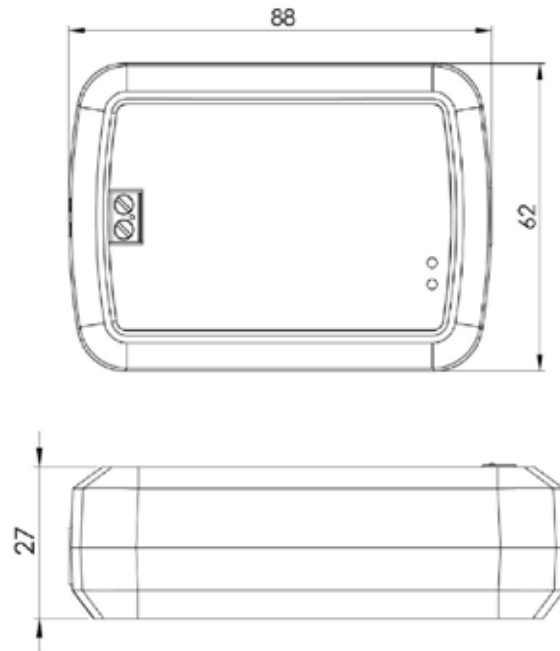
ITR830-006 is a air conditioner gateway that used for monitoring and control all the functioning parameters of LG air conditioners via KNX bus line. LG AC - KNX Gateway is compatible with models in single, multi, multi-f, multi-f max and VRF types categorized in compatibility list sold by LG.

LG AC - KNX Gateway has easy installation feature and can be in-installed inside the own AC indoor unit or a proper location away from the air conditioner, it connects one side directly to the electronic circuit of the AC indoor unit and in the other side directly to the KNX bus.

Functions and Characteristics

ITR830-006 device, provides complete bi-directional integration of LG air conditioners with KNX bus.

- Includes 4 logical advanced parameters, each logical parameter have up to 4 inputs and can be configured as AND, OR & XOR.
- Includes 8 advanced converter parameters, each converter has four operations math calculations according to input type.
- Logic and converter parameters can be used for energy savings, configurable scenes, temperature limits etc.
- The LG AC - KNX gateway provides error notifications for errors that may occur in exceptional cases.



A large teal-colored cone originates from a light fixture at the top center of the page and expands downwards. A vertical dashed line runs through the center of the cone, and two horizontal dashed lines cross it at different heights. The background is dark, and the bottom of the page shows a textured floor.

KNX/DALI SYSTEM

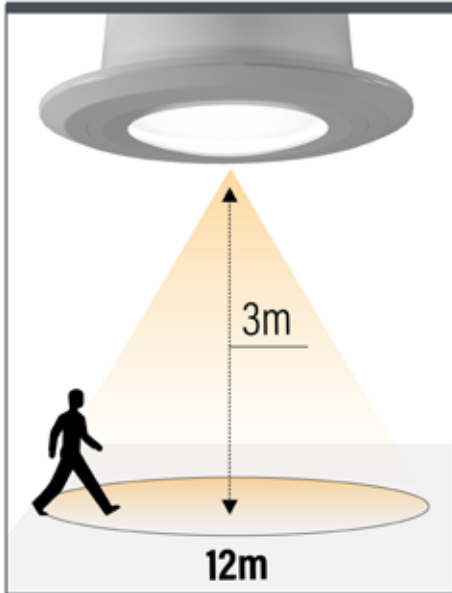
Sensors/Detectors

'INTERRA

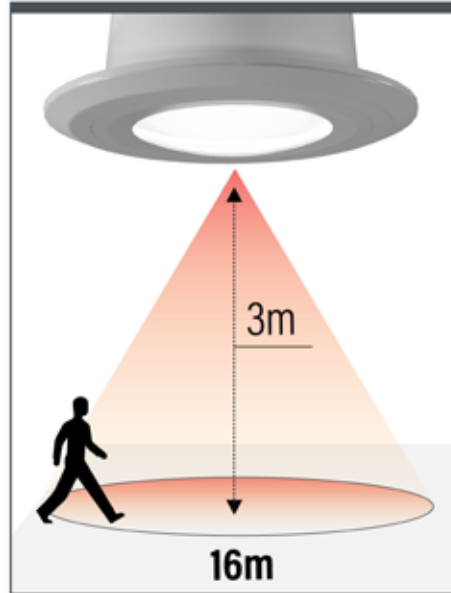
CERTIFIED R&D CENTER OF AUTOMATION

Developer of Uniqueness

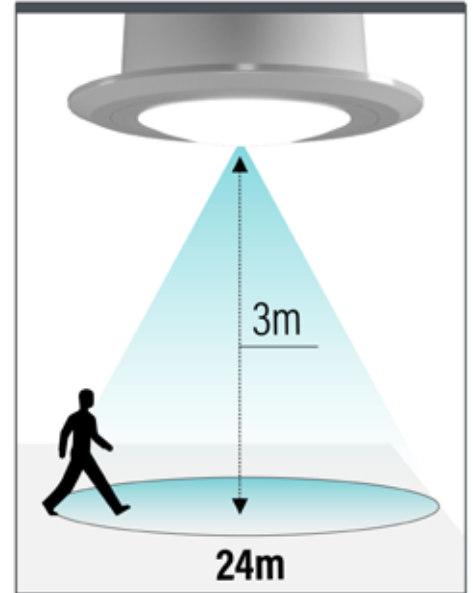
KNX Mid Range
 Presence Sensor



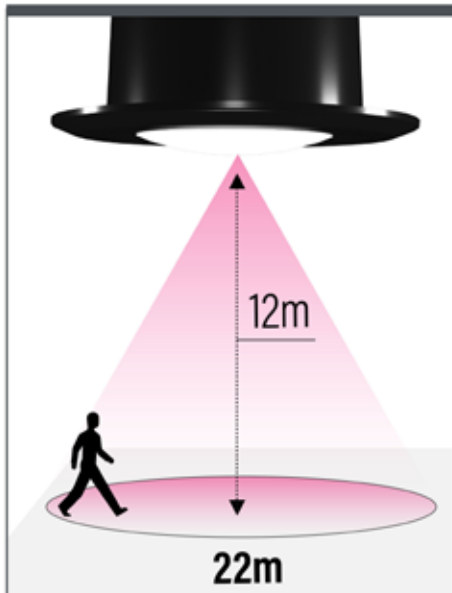
KNX Mid Range + (Plus)
 Presence Sensor



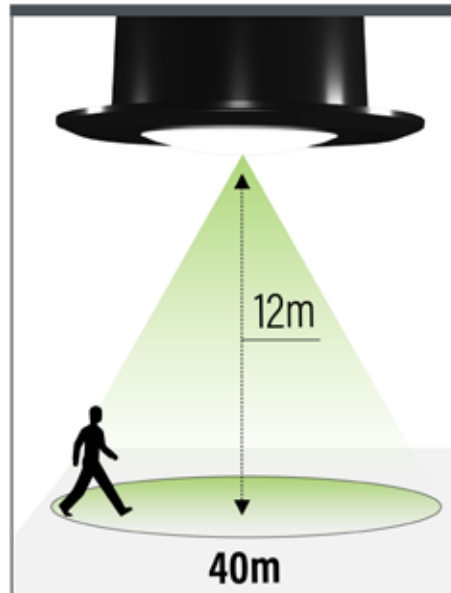
KNX Wide Range
 Presence Sensor



KNX High Bay
 Presence Sensor



KNX High Bay + (Plus)
 Presence Sensor





Mid Range KNX Presence Sensor

Product	Order Code
Mid Range KNX Presence Sensor	ITR415-001



Mid Range Plus KNX Presence Sensor

Product	Order Code
Mid Range Plus KNX Presence Sensor	ITR415-002



Wide Range KNX Presence Sensor

Product	Order Code
Wide Range KNX Presence Sensor	ITR415-003



High Bay KNX Presence Sensor

Product	Order Code
High Bay KNX Presence Sensor	ITR412-001



High Bay Plus KNX Presence Sensor

Product	Order Code
High Bay Plus KNX Presence Sensor	ITR415-005

KNX Sensors



KNX Flood Detector

Product	Order Code
KNX Flood Detector	ITR401-001



Conventional Flood Detector

Product	Order Code
KNX Flood Detector	ITR400-001

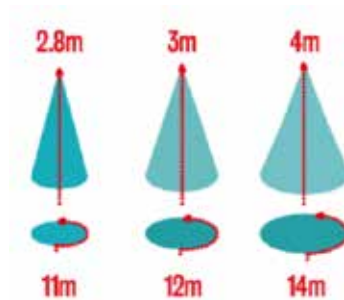
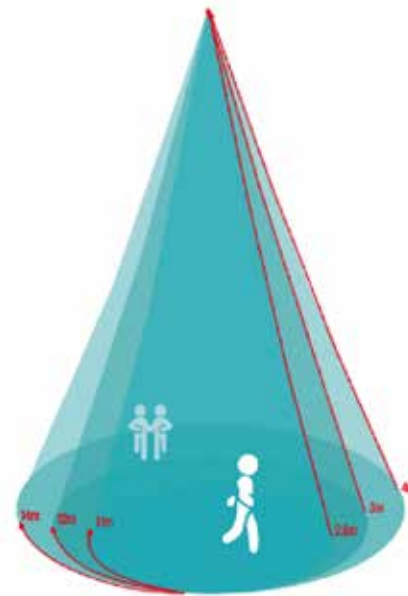
ITR415-001 - MID-RANGE KNX PRESENCE SENSOR



Description

ITR415-001 - Mid-Range KNX Presence Sensor is a multi-functional device suitable for indoor usages with mid range detection capability. It includes 3 independent presence channels that can be used with constant light switch and constant light controller functionality. Independent presence channels can be configured as automatic or semi-automatic mode for user requirements. Moreover, ITR415-001 also supports sensor functionality without presence channels for simple usages. Temperature measurements can be made via integrated temperature sensor and temperature information can be reported to KNX bus. ITR415-001 also includes 5 independent logic blocks to make logical associations. The logical blocks can be associated with such as “AND”, “OR” logic. The logic input conditions contain presence, brightness, movement and external conditions. The sensor also can be configured as the master or slave mode.

Detection Range



Device	ITR415-001
Power Supply	21...30 V DC KNX Power Supply
Current Consumption	< 12 mA
Brightness Detection	1-1200 lux
Inputs	2 x Digital Input 1 x Analog Input
Number of Channels	3 x Presence Channel 1 x Brightness Detection 5 x Logic Function Channel
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	70x41,8 mm (Ø xH)
Configuration	Configuration with ETS
Certification	KNX Certified

Mounting Height	Seated Activity	Walking Towards	Walking Across
2.8m	5.5m	6m	11m
3m	6m	7m	12m
4m	7m	8m	14m

Functions and Characteristics

ITR415-001 supports presence detection, brightness detection, movement detection, temperature detection and external telegram detection.

- Supports 3 channels of presence detection and it has sensor, constant light switch and constant light control application.
- ITR415-001 have 5 logic function blocks and can be set the logical relation AND/OR/XOR. Each block can control 5 output objects.
- Via 2 digital inputs and 1 analog input external devices can be connected.
- Switch sensor, switch/dimming sensor, shutter sensor, value/forcedoperation, scene control and RGB color control can be made with buttons that connected to the inputs (*)
- Temperature measuring through integrated sensor with possibility of sending the value on change and periodically to the bus for monitoring the room temperature (*)
- Room temperature control with On/Off (2-points) and proportional (Continuous or PWM) thermostat functions (*)
- The sensing range for detecting people sitting, walking towards and walking across are different sizes. The sensing range of the detector changes depending on the mounting height.
- The sensor supports communication object controls: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String control, Threshold control, Logic combination control.
- With the function of constant light controller: The detector keeps the brightness at a constant value, and it will dim the lights to the corresponding intensity according to the surrounding brightness.

Useful Installation Tips

As the sensor reacts to temperature changes, the following conditions should be avoided:

Avoid targeting the sensor toward the objects which may be swayed in the wind, such as curtain, tall plants, miniature etc.

Avoid targeting the sensor toward the objects whose surfaces are highly reflective, such as mirror, glass and pool, etc.

The sensor should be mounted away from heat sources such as air conditioning, lights, heating vents etc.



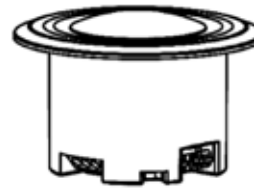
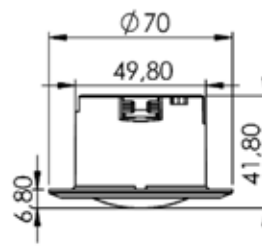
Important Notes

- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Special Programming: ITR415-001 is designed for professional KNX installation. It only can be programmed by ETS software.
- Cable Connections: Ensure making correct connections for Black and Red wires.
- Voltage: The input voltage shall be 21-30VDC.
- Mounting Location: Installed indoors, to avoid installation near the air-conditioner vent, and be away from the heat source.
- The tightening torque shall not exceed 0.2Nm.
- Avoid contact with liquids and corrosive gases.

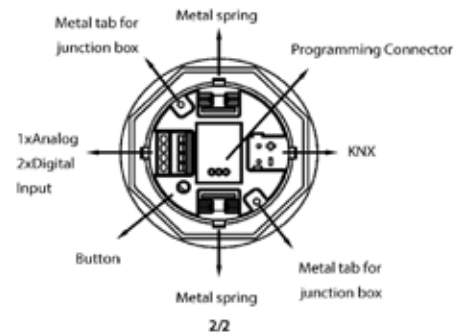
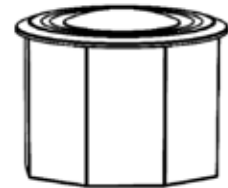
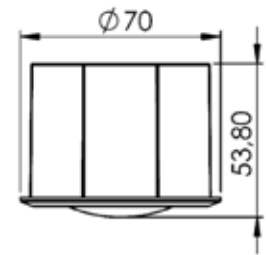
Technical Drawing

Technical drawings and dimensions for flush mounted and surface mounted sensor models are given on the top right hand side. All dimensions specified for technical drawings are in millimeters.

Flush Mounted:



Surface Mounted



Important Notes

The device can be mounted either in the ceiling via flush mounting housing or on the ceiling via the optionally available surface-mounted box.

Flush Mount Process:

- First, a slot hole of suitable size for sensor mounting is opened on the ceiling surface to be flush mounted.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor are stretched and then the sensor is attached to the hole on the ceiling. Thus, mounting process is finished.

Surface Mount Process (Optional) :

- First, a hole of suitable size for cables is opened on the ceiling surface.
- Second, the surface junction box where the sensor will be placed is screwed to the ceiling.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor housing are removed and then the metal tabs are attached to the sensor housing. Then, the sensor is mounted to junction box. Thus, mounting process is completed.

Important Notes

There is the option of carrying out a brightness adjustment for the sensor via the brightness detection application with the aid of the ETS parameters and objects.

Calibration Procedure :

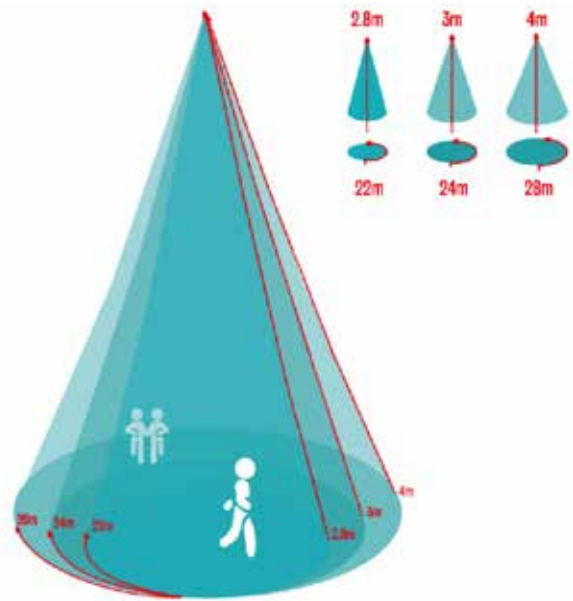
- Perform the measurement during sufficient daylight (> 1/2 * setpoint).
- Switch off the light source.
- Carry out the measurement of brightness at a defined location with a luxmeter. For instance, lying down at the workplace with a view toward the ceiling and wait until the light is close to being constant. Send the value to the device using the brightness calibration object via ETS as soon as possible after measuring.

ITR415-003 - WIDE-RANGE KNX PRESENCE SENSOR Description



ITR415-003 - Wide-Range KNX Presence Sensor is a multi-functional device suitable for indoor usages with wide range detection capability. It includes 3 independent presence channels that can be used with constant light switch and constant light controller functionality. Independent presence channels can be configured as automatic or semi-automatic mode for user requirements. Moreover, ITR415-003 also supports sensor functionality without presence channels for simple usages. Temperature measurements can be made via integrated temperature sensor and temperature information can be reported to KNX bus. ITR415-003 also includes 5 independent logic blocks to make logical associations. The logical blocks can be associated with such as "AND", "OR" logic. The logic input conditions contain presence, brightness, movement and external conditions. The sensor also can be configured as the master or slave mode.

Detection Range



Device	ITR415-003
Power Supply	21...30 V DC KNX Power Supply
Current Consumption	< 12 mA
Brightness Detection	1-1200 lux
Inputs	2 x Digital Input 1 x Analog Input
Number of Channels	3 x Presence Channel 1 x Brightness Detection 5 x Logic Function Channel
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	70x41,8 mm (Ø xH)
Configuration	Configuration with ETS
Certification	KNX Certified

Mounting Height	Seated Activity	Walking Towards	Walking Across
2.8m	6m	12m	22m
3m	7m	14m	24m
4m	7.5m	16m	28

Functions and Characteristics

- ITR415-003 supports presence detection, brightness detection, movement detection, temperature detection and external telegram detection.
- Supports 3 channels of presence detection and it has sensor, constant light switch and constant light control application.
- ITR415-003 have 5 logic function blocks and can be set the logical relation AND/OR/XOR. Each block can control 5 output objects.
- Via 2 digital inputs and 1 analog input external devices can be connected.

- Switch sensor, switch/dimming sensor, shutter sensor, value/forced operation, scene control and RGB color control can be made with buttons that connected to the inputs (*)
- Temperature measuring through integrated sensor with possibility of sending the value on change and periodically to the bus for monitoring the room temperature (*)
- Room temperature control with On/Off (2-points) and proportional (Continuous or PWM) thermostat functions (*)
- The sensing range for detecting people sitting, walking towards and walking across are different sizes. The sensing range of the detector changes depending on the mounting height.
- The sensor supports communication object controls: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String control, Threshold control, Logic combination control.
- With the function of constant light controller: The detector keeps the brightness at a constant value, and it will dim the lights to the corresponding intensity according to the surrounding brightness.

(*) : The features will be added in second version of the device.

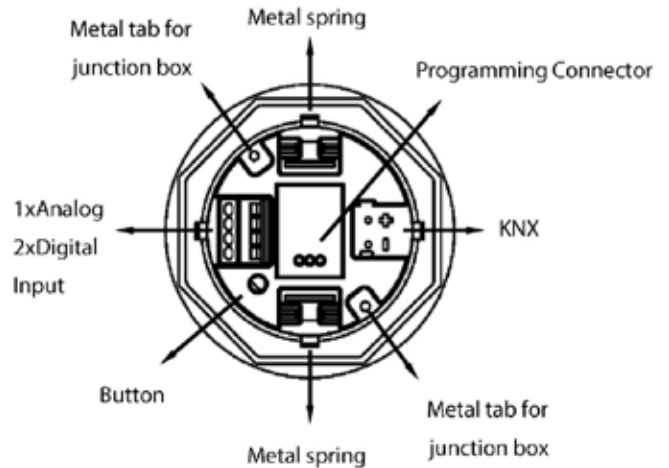
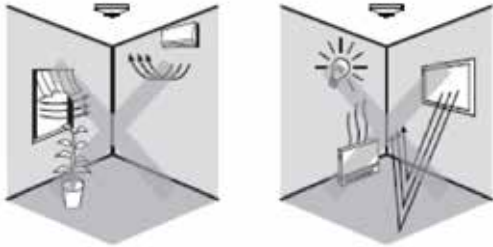
Useful Installation Tips

As the sensor reacts to temperature changes, the following conditions should be avoided:

Avoid targeting the sensor toward the objects which may be swayed in the wind, such as curtain, tall plants, miniature etc.

Avoid targeting the sensor toward the objects whose surfaces are highly reflective, such as mirror, glass and pool, etc.

The sensor should be mounted away from heat sources such as air conditioning, lights, heating vents etc.



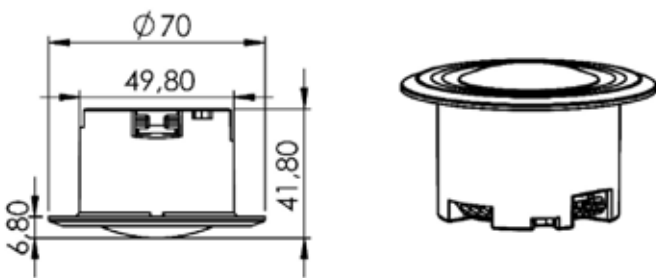
Important Notes

- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Special Programming: ITR415-003 is designed for professional KNX installation. It only can be programmed by ETS software.
- Cable Connections: Ensure making correct connections for Black and Red wires.
- Voltage: The input voltage shall be 21-30VDC.
- Mounting Location: Installed indoors, to avoid installation near the air-conditioner vent, and be away from the heat source.
- The tightening torque shall not exceed 0.2Nm.
- Avoid contact with liquids and corrosive gases.

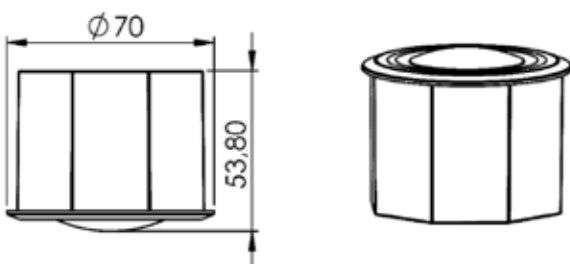
Technical Drawings

Technical drawings and dimensions for flush mounted and surface mounted sensor models are given below and on the right hand side. All dimensions specified for technical drawings are in millimeters.

Flush Mounted



Surface Mounted



Mounting

The device can be mounted either in the ceiling via flush mounting housing or on the ceiling via the optionally available surface-mounted box.

Flush Mount Process:

- First, a slot hole of suitable size for sensor mounting is opened on the ceiling surface to be flush mounted.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor are stretched and then the sensor is attached to the hole on the ceiling. Thus, mounting process is finished.

Surface Mount Process (Optional) :

- First, a hole of suitable size for cables is opened on the ceiling surface.
- Second, the surface junction box where the sensor will be placed is screwed to the ceiling.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor housing are removed and then the metal tabs are attached to the sensor housing. Then, the sensor is mounted to junction box. Thus, mounting process is completed.

Calibration

There is the option of carrying out a brightness adjustment for the sensor via the brightness detection application with the aid of the ETS parameters and objects.

Calibration Procedure

- Perform the measurement during sufficient daylight (> 1/2 * setpoint).
- Switch off the light source.
- Carry out the measurement of brightness at a defined location with a luxmeter. For instance, lying down at the workplace with a view toward the ceiling and wait until the light is close to being constant. Send the value to the device using the brightness calibration object via ETS as soon as possible after measuring.

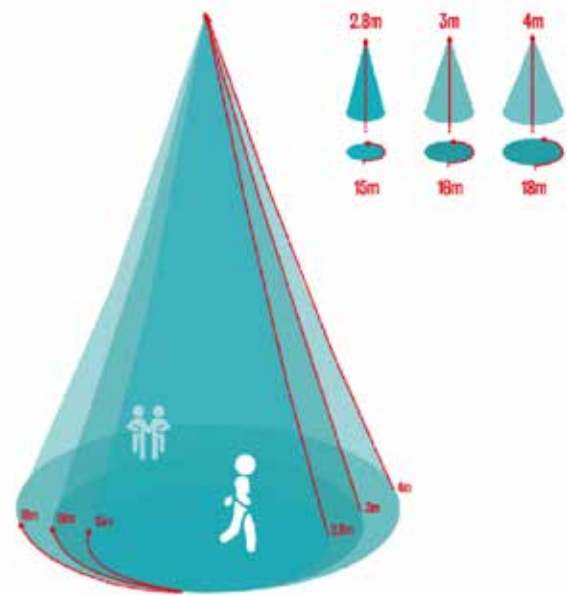
ITR415-002 - MID RANGE PLUS KNX PRESENCE SENSOR



Description

ITR415-002 - Mid-Range Plus KNX Presence Sensor is a multifunctional device suitable for indoor usages with mid plus range detection capability. It includes 3 independent presence channels that can be used with constant light switch and constant light controller functionality. Independent presence channels can be configured as automatic or semi-automatic mode for user requirements. Moreover, ITR415-002 also supports sensor functionality without presence channels for simple usages. Temperature measurements can be made via integrated temperature sensor and temperature information can be reported to KNX bus. ITR415-002 also includes 5 independent logic blocks to make logical associations. The logical blocks can be associated with such as "AND", "OR" logic. The logic input conditions contain presence, brightness, movement and external conditions. The sensor also can be configured as the master or slave mode.

Detection Range



Device	ITR415-002
Power Supply	21...30 V DC KNX Power Supply
Current Consumption	< 12 mA
Brightness Detection	1-1200 lux
Inputs	2 x Digital Input 1 x Analog Input
Number of Channels	3 x Presence Channel 1 x Brightness Detection 5 x Logic Function Channel
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	70x41,8 mm (Ø xH)
Configuration	Configuration with ETS
Certification	KNX Certified

Mounting Height	Seated Activity	Walking Towards	Walking Across
2.8m	6m	9m	15m
3m	6.5m	11m	16m
4m	7m	12m	18m

Functions and Characteristics

- ITR415-002 supports presence detection, brightness detection, movement detection, temperature detection and external telegram detection.
- Supports 3 channels of presence detection and it has sensor, constant light switch and constant light control application.
- ITR415-002 have 5 logic function blocks and can be set the logical relation AND/OR/XOR. Each block can control 5 output objects.
- Via 2 digital inputs and 1 analog input external devices can be connected.

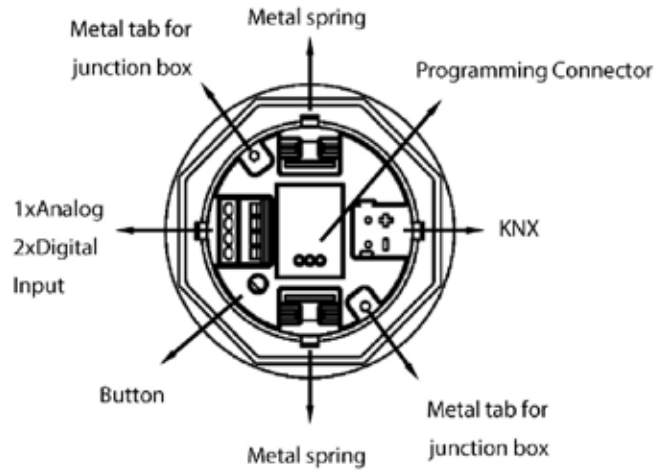
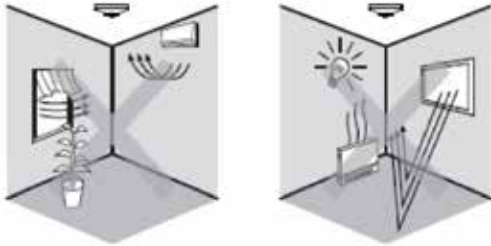
- Switch sensor, switch/dimming sensor, shutter sensor, value/forced operation, scene control and RGB color control can be made with buttons that connected to the inputs (*)
- Temperature measuring through integrated sensor with possibility of sending the value on change and periodically to the bus for monitoring the room temperature (*)
- Room temperature control with On/Off (2-points) and proportional (Continuous or PWM) thermostat functions (*)
- The sensing range for detecting people sitting, walking towards and walking across are different sizes. The sensing range of the detector changes depending on the mounting height.
- The sensor supports communication object controls: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String control, Threshold control, Logic combination control.
- With the function of constant light controller: The detector keeps the brightness at a constant value, and it will dim the lights to the corresponding intensity according to the surrounding brightness.

(*) : The features will be added in second version of the device.

Useful Installation Tips

As the sensor reacts to temperature changes, the following conditions should be avoided:

Avoid targeting the sensor toward the objects which may be swayed in the wind, such as curtain, tall plants, miniature etc.
 Avoid targeting the sensor toward the objects whose surfaces are highly reflective, such as mirror, glass and pool, etc.
 The sensor should be mounted away from heat sources such as air conditioning, lights, heating vents etc.



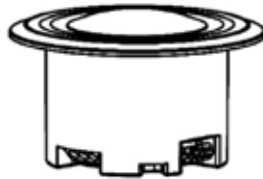
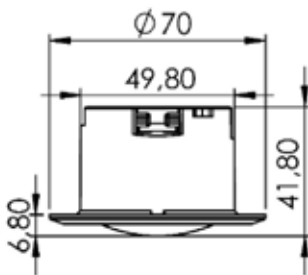
Important Notes

- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Special Programming: ITR415-002 is designed for professional KNX installation. It only can be programmed by ETS software.
- Cable Connections: Ensure making correct connections for Black and Red wires.
- Voltage: The input voltage shall be 21-30VDC.
- Mounting Location: Installed indoors, to avoid installation near the air-conditioner vent, and be away from the heat source.
- The tightening torque shall not exceed 0.2Nm.
- Avoid contact with liquids and corrosive gases.

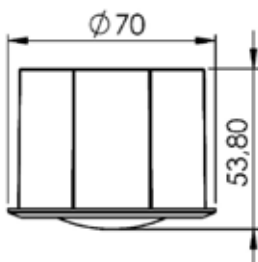
Technical Drawings

Technical drawings and dimensions for flush mounted and surface mounted sensor models are given below and on the right hand side. All dimensions specified for technical drawings are in millimeters.

Flush Mounted



Surface Mounted



Mounting

The device can be mounted either in the ceiling via flush mounting housing or on the ceiling via the optionally available surface-mounted box.

Flush Mount Process:

- First, a slot hole of suitable size for sensor mounting is opened on the ceiling surface to be flush mounted.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor are stretched and then the sensor is attached to the hole on the ceiling. Thus, mounting process is finished.

Surface Mount Process (Optional) :

- First, a hole of suitable size for cables is opened on the ceiling surface.
- Second, the surface junction box where the sensor will be placed is screwed to the ceiling.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor housing are removed and then the metal tabs are attached to the sensor housing. Then, the sensor is mounted to junction box. Thus, mounting process is completed.

Calibration

There is the option of carrying out a brightness adjustment for the sensor via the brightness detection application with the aid of the ETS parameters and objects.

Calibration Procedure

- Perform the measurement during sufficient daylight (> 1/2 * setpoint).
- Switch off the light source.
- Carry out the measurement of brightness at a defined location with a luxmeter. For instance, lying down at the workplace with a view toward the ceiling and wait until the light is close to being constant. Send the value to the device using the brightness calibration object via ETS as soon as possible after measuring.

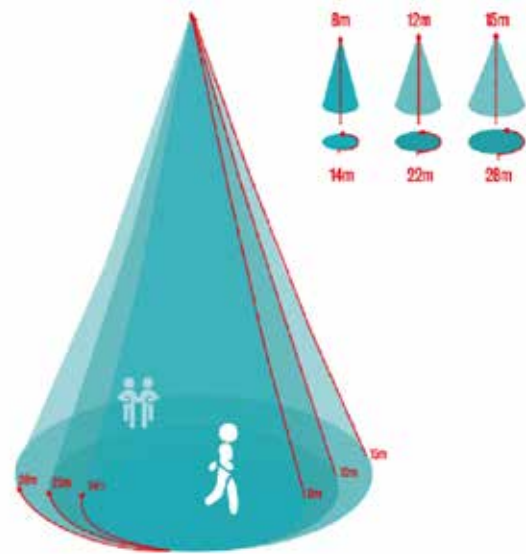
ITR415-004 - HIGH BAY KNX PRESENCE SENSOR



Description

ITR415-004 - High Bay KNX Presence Sensor is a multi-functional device suitable for indoor usages with high range detection and high ceiling mount capability. It includes 3 independent presence channels that can be used with constant light switch and constant light controller functionality. Independent presence channels can be configured as automatic or semi-automatic mode for user requirements. Moreover, ITR415-004 also supports sensor functionality without presence channels for simple usages. Temperature measurements can be made via integrated temperature sensor and temperature information can be reported to KNX bus. ITR415-004 also includes 5 independent logic blocks to make logical associations. The logical blocks can be associated with such as “AND”, “OR” logic. The logic input conditions contain presence, brightness, movement and external conditions. The sensor also can be configured as the master or slave mode.

Detection Range



Device	ITR415-004
Power Supply	21...30 V DC KNX Power Supply
Current Consumption	< 12 mA
Brightness Detection	1-1200 lux
Inputs	2 x Digital Input 1 x Analog Input
Number of Channels	3 x Presence Channel 1 x Brightness Detection 5 x Logic Function Channel
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	70x41,8 mm (Ø xH)
Configuration	Configuration with ETS
Certification	KNX Certified

Mounting Height	Walking Across
8m	14m
12m	22m
15m	28m

Functions and Characteristics

- ITR415-002 supports presence detection, brightness detection, movement detection, temperature detection and external telegram detection.
- Supports 3 channels of presence detection and it has sensor, constant light switch and constant light control application.
- ITR415-002 have 5 logic function blocks and can be set the logical relation AND/OR/XOR. Each block can control 5 output objects.
- Via 2 digital inputs and 1 analog input external devices can be connected.
- Switch sensor, switch/dimming sensor, shutter sensor, value/forced operation, scene control and RGB color control can be made with buttons that connected to the inputs (*)
- Temperature measuring through integrated sensor with possibility of sending the value on change and periodically to the bus for monitoring the room temperature (*)
- Room temperature control with On/Off (2-points) and proportional (Continuous or PWM) thermostat functions (*)
- The sensing range for detecting people sitting, walking towards and walking across are different sizes. The sensing range of the detector changes depending on the mounting height.
- The sensor supports communication object controls: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String control, Threshold control, Logic combination control.
- With the function of constant light controller: The detector keeps the brightness at a constant value, and it will dim the lights to the corresponding intensity according to the surrounding brightness.

(*) : The features will be added in second version of the device.

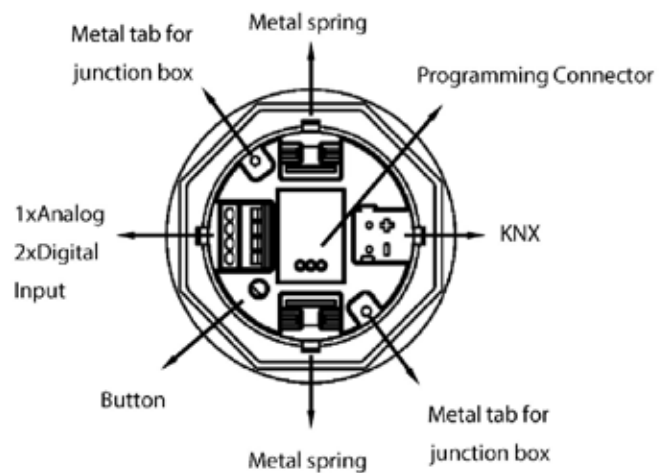
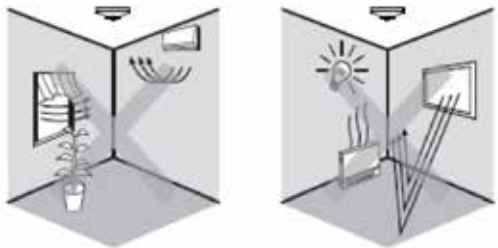
Useful Installation Tips

As the sensor reacts to temperature changes, the following conditions should be avoided:

Avoid targeting the sensor toward the objects which may be swayed in the wind, such as curtain, tall plants, miniature etc.

Avoid targeting the sensor toward the objects whose surfaces are highly reflective, such as mirror, glass and pool, etc.

The sensor should be mounted away from heat sources such as air conditioning, lights, heating vents etc.



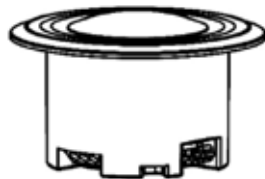
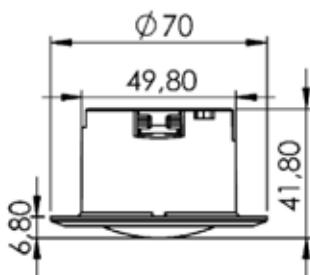
Important Notes

- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Special Programming: ITR415-002 is designed for professional KNX installation. It only can be programmed by ETS software.
- Cable Connections: Ensure making correct connections for Black and Red wires.
- Voltage: The input voltage shall be 21-30VDC.
- Mounting Location: Installed indoors, to avoid installation near the air-conditioner vent, and be away from the heat source.
- The tightening torque shall not exceed 0.2Nm.
- Avoid contact with liquids and corrosive gases.

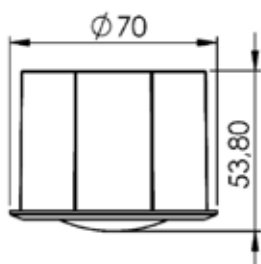
Technical Drawings

Technical drawings and dimensions for flush mounted and surface mounted sensor models are given below and on the right hand side. All dimensions specified for technical drawings are in millimeters.

Flush Mounted



Surface Mounted



Mounting

The device can be mounted either in the ceiling via flush mounting housing or on the ceiling via the optionally available surface-mounted box.

Flush Mount Process:

- First, a slot hole of suitable size for sensor mounting is opened on the ceiling surface to be flush mounted.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor are stretched and then the sensor is attached to the hole on the ceiling. Thus, mounting process is finished.

Surface Mount Process (Optional) :

- First, a hole of suitable size for cables is opened on the ceiling surface.
- Second, the surface junction box where the sensor will be placed is screwed to the ceiling.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor housing are removed and then the metal tabs are attached to the sensor housing. Then, the sensor is mounted to junction box. Thus, mounting process is completed.

Calibration

There is the option of carrying out a brightness adjustment for the sensor via the brightness detection application with the aid of the ETS parameters and objects.

Calibration Procedure

- Perform the measurement during sufficient daylight (> 1/2 * setpoint).
- Switch off the light source.
- Carry out the measurement of brightness at a defined location with a luxmeter. For instance, lying down at the workplace with a view toward the ceiling and wait until the light is close to being constant. Send the value to the device using the brightness calibration object via ETS as soon as possible after measuring.

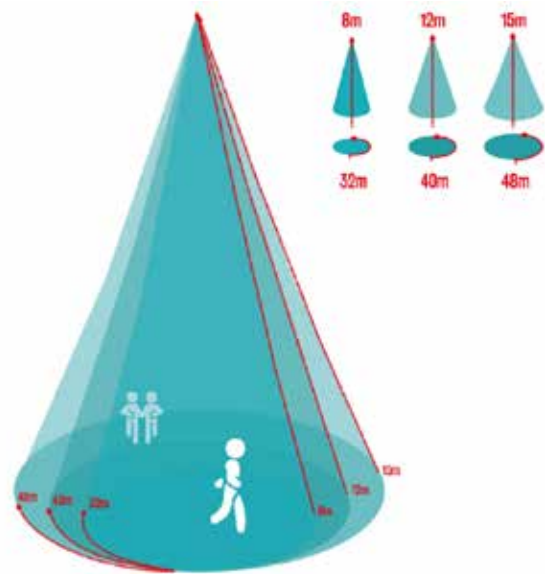
ITR415-005 - HIGH BAY PLUS KNX PRESENCE SENSOR



Description

ITR415-005 - High Bay Plus KNX Presence Sensor is a multi-functional device suitable for indoor usages with high plus range detection and high ceiling mount capability. It includes 3 independent presence channels that can be used with constant light switch and constant light controller functionality. Independent presence channels can be configured as automatic or semi-automatic mode for user requirements. Moreover, ITR415-005 also supports sensor functionality without presence channels for simple usages. Temperature measurements can be made via integrated temperature sensor and temperature information can be reported to KNX bus. ITR415-005 also includes 5 independent logic blocks to make logical associations. The logical blocks can be associated with such as "AND", "OR" logic. The logic input conditions contain presence, brightness, movement and external conditions. The sensor also can be configured as the master or slave mode.

Detection Range



Device	ITR415-005
Power Supply	21...30 V DC KNX Power Supply
Current Consumption	< 12 mA
Brightness Detection	1-1200 lux
Inputs	2 x Digital Input 1 x Analog Input
Number of Channels	3 x Presence Channel 1 x Brightness Detection 5 x Logic Function Channel
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	70x41,8 mm (Ø xH)
Configuration	Configuration with ETS
Certification	KNX Certified

Mounting Height	Walking Across
8m	32m
12m	40m
15m	48m

Functions and Characteristics

- ITR415-005 supports presence detection, brightness detection, movement detection, temperature detection and external telegram detection.
- Supports 3 channels of presence detection and it has sensor, constant light switch and constant light control application.
- ITR415-005 have 5 logic function blocks and can be set the logical relation AND/OR/XOR. Each block can control 5 output objects.
- Via 2 digital inputs and 1 analog input external devices can be connected.

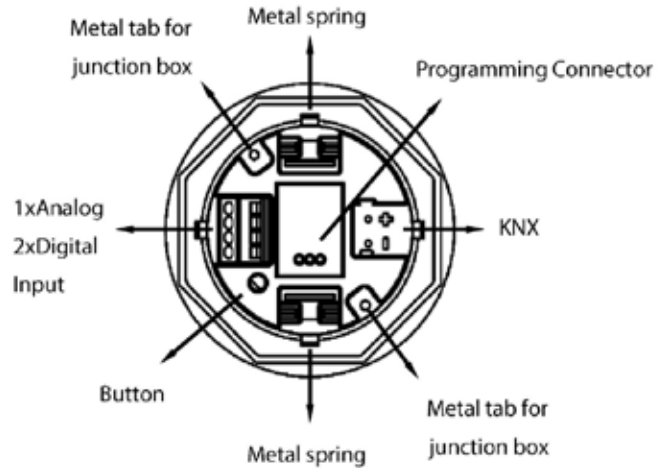
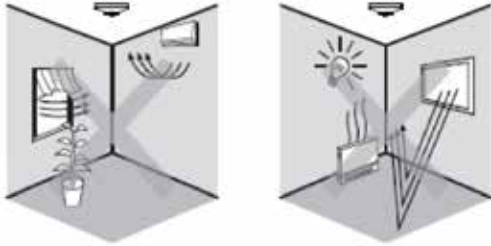
- Switch sensor, switch/dimming sensor, shutter sensor, value/forced operation, scene control and RGB color control can be made with buttons that connected to the inputs (*)
- Temperature measuring through integrated sensor with possibility of sending the value on change and periodically to the bus for monitoring the room temperature (*)
- Room temperature control with On/Off (2-points) and proportional (Continuous or PWM) thermostat functions (*)
- The sensing range for detecting people sitting, walking towards and walking across are different sizes. The sensing range of the detector changes depending on the mounting height.
- The sensor supports communication object controls: Switch control, Absolute dimming control, Shutter control, Alarm control, Percentage control, Sequence control, Scene control, String control, Threshold control, Logic combination control.
- With the function of constant light controller: The detector keeps the brightness at a constant value, and it will dim the lights to the corresponding intensity according to the surrounding brightness.

(*) : The features will be added in second version of the device.

Useful Installation Tips

As the sensor reacts to temperature changes, the following conditions should be avoided:

Avoid targeting the sensor toward the objects which may be swayed in the wind, such as curtain, tall plants, miniature etc.
 Avoid targeting the sensor toward the objects whose surfaces are highly reflective, such as mirror, glass and pool, etc.
 The sensor should be mounted away from heat sources such as air conditioning, lights, heating vents etc.



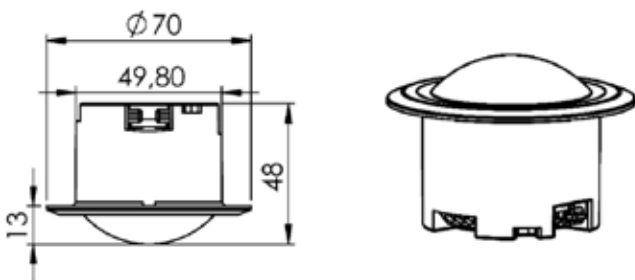
Important Notes

- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- Special Programming: ITR415-005 is designed for professional KNX installation. It only can be programmed by ETS software.
- Cable Connections: Ensure making correct connections for Black and Red wires.
- Voltage: The input voltage shall be 21-30VDC.
- Mounting Location: Installed indoors, to avoid installation near the air-conditioner vent, and be away from the heat source.
- The tightening torque shall not exceed 0.2Nm.
- Avoid contact with liquids and corrosive gases.

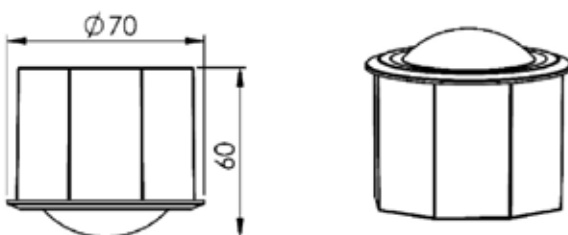
Technical Drawings

Technical drawings and dimensions for flush mounted and surface mounted sensor models are given below and on the right hand side. All dimensions specified for technical drawings are in millimeters.

Flush Mounted



Surface Mounted



Mounting

The device can be mounted either in the ceiling via flush mounting housing or on the ceiling via the optionally available surface-mounted box.

Flush Mount Process:

- First, a slot hole of suitable size for sensor mounting is opened on the ceiling surface to be flush mounted.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor are stretched and then the sensor is attached to the hole on the ceiling. Thus, mounting process is finished.

Surface Mount Process (Optional) :

- First, a hole of suitable size for cables is opened on the ceiling surface.
- Second, the surface junction box where the sensor will be placed is screwed to the ceiling.
- Then, KNX cable and input cable, if any, are connected to the relevant connectors on the sensor.
- The 2 metal springs on the sensor housing are removed and then the metal tabs are attached to the sensor housing. Then, the sensor is mounted to junction box. Thus, mounting process is completed.

Calibration

There is the option of carrying out a brightness adjustment for the sensor via the brightness detection application with the aid of the ETS parameters and objects.

Calibration Procedure

- Perform the measurement during sufficient daylight (> 1/2 * setpoint).
- Switch off the light source.
- Carry out the measurement of brightness at a defined location with a luxmeter. For instance, lying down at the workplace with a view toward the ceiling and wait until the light is close to being constant. Send the value to the device using the brightness calibration object via ETS as soon as possible after measuring.

ITR401-001 - KNX WATER FLOOD DETECTOR



Device	ITR401-001
Power Supply	EIB Power Supply
Power Consumption	10mA (Alarm condition)
LED Indicators	1 x Alarm (red) / Operating (green) LED 1 x Programming LED
Output Current	0,5A @125V DC, 1A @24V DC
Buttons	1 x Programming button
Connection Cable	0,25mm ² - 1,5mm ²
Type of Protection	IP 20
Temperature Range	Operation (-40°C...70°C)
Maximum Air Humidity	< 90 RH
Colour	Light Grey and White
Dimensions	55x88,1x21,6 mm (WxHxD)
Certification	KNX Certified
Configuration	ETS
Flammability	Non-flammable product

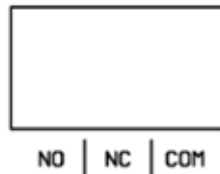
Description

ITR401-001 flood detector is equipped with KNX system and used to detect the presence of water-based liquids at any desired location such as basements, water tanks or any hidden areas where water can leak without notice. ITR401-001 is an early warning system that notifies you through KNX bus. By catching it early, you may be able to avoid expensive repairs and loss of treasured items. Due to the existence of the KNX system, users have a chance to arrange any kind of additional alert system.

Features

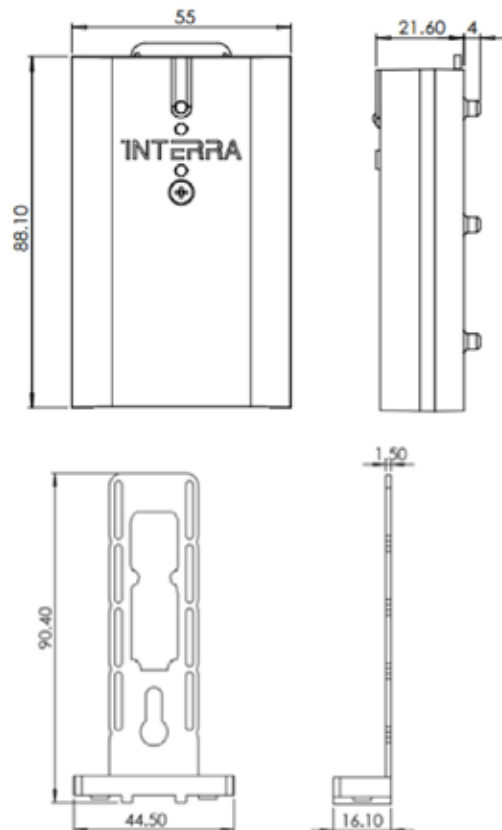
- Module alive beacon notification.
- Device is eligible to alert the users via buzzer, LED or relay output. Users can activate the LED or buzzer via ETS parameters.
- The LED is available for two colour status which operated inversely as green and red.
- Alarm detection delay selections are available. Users can determine the delay via ETS parameters.
- Device has a sensing probe extends downward up to 25cm. The sensing probe operates determined alarm condition when water presence is detected.
- Suspending the alarm for desired duration feature is available.
- Alarm reset feature is available.

Connection Diagram



NO : Normally open contact
NC : Normally closed contact
COM : Relay mutual terminal

Dimensions



ITR400-001 - CONVENTIONAL WATER FLOOD DETECTOR



Device	ITR400-001
Power Supply	12 - 27V DC*
Power Consumption	50mA (Alarm Condition, @12 V DC)
LED Indicators	1 x Alarm (red) / Operating (green) LED
Output Current	1A @24V DC
Connection Cable	0,25mm2 - 1.5mm2
Maximum Air Humidity	<90RH
Type of Protection	IP 20
Temperature Range	Operation (0°C...40°C) Storage (-10°C...75°C)
Flammability	Non-flammable product
Colour	Light Grey
Dimensions	55x88,1x21,6 mm (WxHxD)

* : Power supply connection is made independent of negative and positive poles.

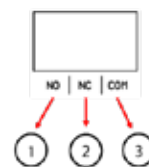
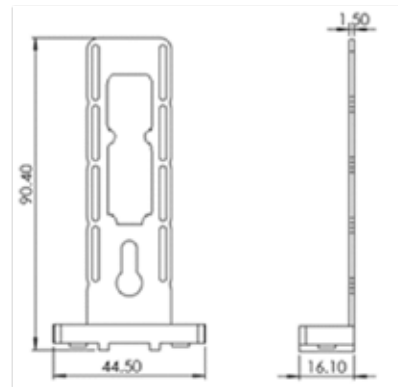
Description

The ITR401-001 flood detector is equipped with the KNX system and is used to detect the presence of basements, water tanks, any concealed area or any site where water-based liquids may be leak by infiltrate. The ITR401-001 is used as an early warning system that provides information via integrated components. It protects the users from expensive repairs and from material losses that may be caused by the damage of the goods by detecting liquid leaks early.

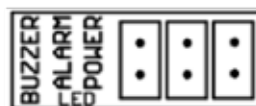
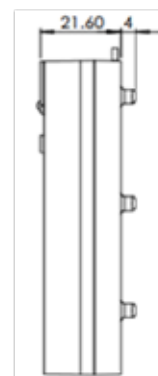
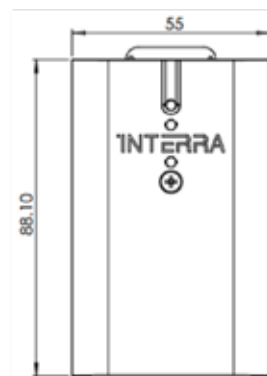
Functions and Characteristics

- Device is eligible to alert the users via buzzer, LED or relay output. Users can activate the LED or buzzer via jumpers independently.
- The LED is available for two colour status which operated inversely as green and red.
- Over 2 years lifetime has been provided with MN21 battery (12V - 50mAh, standard battery in the market).
- Alarm detection delay selections are available. Immediate/3 sec/6 sec alarm delay selections exist on the device. Users can determine the delay via jumpers.
- Device has a sensing probe extends downward up to 25cm. The sensing probe operates determined alarm condition when water presence is detected.

Dimensions & Connection Diagram



- Normally Open Contact
- Normally Closed Contact
- Relay Common Terminal



- Buzzer
- Alarm LED
- Power LED



INTERRA KNX RF

The wireless solution

Wirelessly expand or supplement KNX systems
the quick and easy way.

KNX RF Technology
KNX RF Integration: Seamless configuration in ETS.
KNX RF Solutions



With INTERRA KNX RF, the operating comfort of the building technology can be easily increased at any time in buildings with an existing KNX system.

'KNX RF' stands for 'KNX Radio Frequency', i.e. KNX via wireless signal.

New options for wirelessly controlling light, blinds, scenes and so on can thus be installed anywhere in the building without a great deal of expense and effort, and above all else without any dirt or noise. Whether it's a renovation or even a new-build project, operating points can be installed in locations where cables cannot or should not be laid or where switches cannot

or should not be mounted – be this on walls made of stone, concrete, wood, glass or on furniture surfaces.

INTERRA KNX RF uses 100% of the universal KNX standard 'KNX RF1. R S-Mode' and allows interoperable access to the full functionality of the KNX system.

This means that all KNX products available on the market can be seamlessly integrated in the system.



Wireless Technology

Scrupulously designed, KNX RF specifications meet the same criteria of interoperability and communication efficiency than KNX TP. In addition to the KNX Secure mechanisms, KNX RF is also suitable for energy harvesting.





Seamless Integration

Smooth integration, thanks to the brand-independent tool ETS, is the main adjective.

Either directly plugging an USB-RF stick in your computer, or by means of a TP/RF media coupler, the KNX Partner will enjoy a great User Experience integrating your KNX RF devices in any project.

That KNX RF has been selected as a technology solution to achieve 95% digital metering by 2020 in World is not a coincidence: future-proof and global widespread ensures the long-term investment.

ITR700-002 - KNX RF 4 CHANNEL



Device	ITR700-002
Power Supply	230V- 50/60Hz
Current	30 mA
Radio Frequency	868,3MHz
Transmission Power	< 10dB
Transmission Range	In free field: ~100m Indoors: ~ 30m
Cable Length	< 10m
KNX Media	KNX RF 1.R
Temperature Accuracy	30,3 °C between -10 °C & +70 °C
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...55°C)
Flammability	Non-flammable Product
Type of Protection	IP 20, Class II
Colour	Light Grey
Dimensions	46x46x11 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR700-002 is a 4-input wireless KNX RF S-Mode universal interface. The 4 channel which can be individually parameterized can be used as analog or binary input. It incorporates up to 4 independent Thermostats for the control of Heating and / or Cooling of 4 different zones. ITR700-002 is a perfect solution for using in conventional installations without placing KNX bus cables. Communication with the KNX Bus must be carried out using a ITR750-002 KNX RF S-Mode media coupler. Interra ITR700-002 KNX RF 4 channel universal interface detects the status changes at its inputs and send telegrams according to ETS configuration. In addition, it also allows the measurement of the temperature and the management of temperature alarms.

Functions and Characteristics

The universal IR codes control TV, DVD and other devices which can be controlled by IR

- The AC IR codes are used for controlling AC devices of any brand.
- Interra IR Emitter supports current detection with current up to 2A.
- The device has several AC control types: Fan speed control, swing control, Cooling/Heating, Temperature control, ON/OFF control.
- After learned, obtained and downloaded the infrared codes through infrared learning page of KNX Assistant Software and IR Learner, the Infrared Emitter can control TV, DVD, air conditioner etc.
- Single mode: System emits one universal IR code and the emitting channel is one channel and multichannel.
- Repeat mode: System emits one universal IR code several times repeatedly and the emitting channel is one channel and multichannel.
- Sequence mode: System emits several universal IR code sequently at one time, but the emitting channel is one channel.
- Air-condition mode: System control air-condition specially, and the emitting channel is one channel.
- Current detection: System detects the current of equipments running

Installation

The range of the radio signal depends on various external states. The range can be optimized by the choice of installation location avoiding placing it close to any possible sources of interference, e.g. metallic surfaces, microwave ovens.

Safety Notes

- Avoid to install it close to radio electrical devices, microwaves,...
- Leave a minimum separation of 2m between the transmitter and the receiver.
- May be used for indoor installations in dry rooms only.

Commissioning

The programming and commissioning must be done with ETS5 or later version: Carry out the wiring according to wiring diagrams described in "layouts and wirings" section.

Fig. 1 : Connection to switch / pushbutton.

Fig. 2 : Connection to temperature probe.

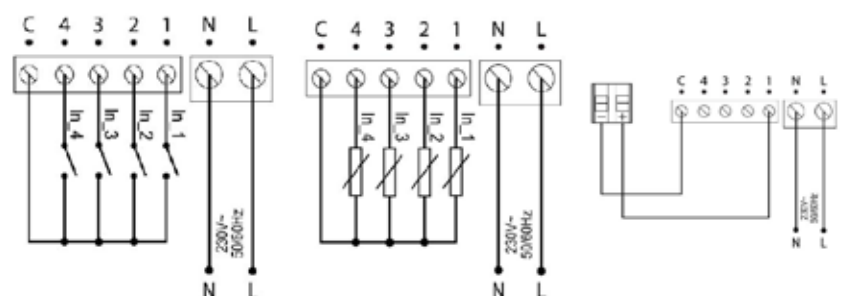
Fig. 3 : Connection to movement detector.

-> Supply the interface with 230V. The red LED goes on.

-> Press the Programming key (1). The green LED goes on.

-> Load the physical address and the application software into the actuator The green LED goes off.

Layouts and Wirings



ITR700-001 - KNX RF 2 CHANNEL



Device	ITR700-001
Power Supply	2 batteries 3V CR2025 (included)
Battery Life (Esteemed)	>8 years
Radio Frequency	868,3MHz
Transmission Power	< 10dBm
Transmission Range	In free field: ~100m Indoors: ~ 30m
KNX Media	KNX-RF S-Mode
Maximum Air Humidity	< 90 RH
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...55°C)
Temperature Accuracy	30,3 °C between -10 °C & +70 °C
Flammability	Non-flammable Product
Colour	Light Grey
Dimensions	45x42x12 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR700-001 is a 2 pushbutton input wireless KNX RF S-Mode transmitter with a built-in temperature sensor. ITR700-001 is a perfect solution for using in conventional installations without placing KNX bus cables. Communication with the KNX Bus must be carried out using a ITR750-002 KNX RF S-Mode media coupler. Interra ITR700-001 KNX RF push button interface detects the status changes at its inputs and send telegrams according to ETS configuration. In addition, it also allows the measurement of the temperature and the management of temperature alarms. Each of 2 inputs can be parameterized individually through the ETS.

Functions and Characteristics

- Acting on 1 or 2 independent output channels.
- Function of each input : Switch, Timed Start/Stop, Dimmer, Multiple Switch, Shutter control, Scene control, Fixed value/ Forced.
- The Temperature Sensor incorporates different options that must be parameterized: Transmission frequency, over-heating or over-cooling alarms and temperature sensor calibration.
- Flush mounting within an universal box, behind a pushbutton.

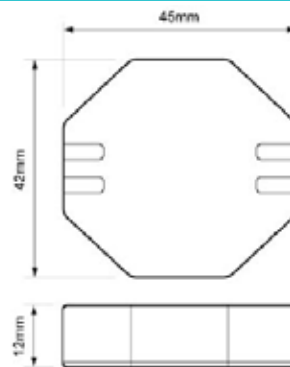
Installation

The range of the radio signal depends on various external states. The range can be optimized by the choice of installation location avoiding placing it close to any possible sources of interference, e.g. metallic surfaces, microwave ovens

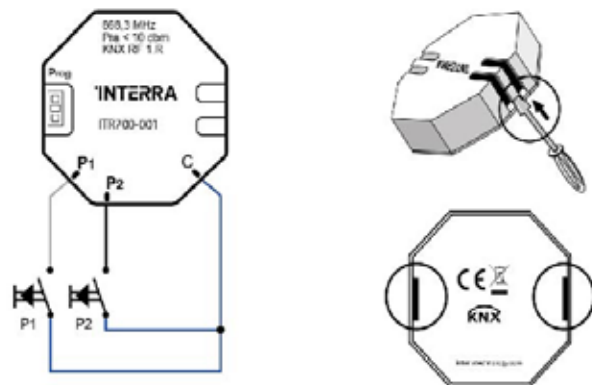
Safety Notes

- Avoid to install it close to radio electrical devices, microwaves,...
- Leave a minimum separation of 2m between the transmitter and the receiver.
- May be used for indoor installations in dry rooms only

Dimensions



Layouts and Wirings



Battery Change

When the battery reaches the limit of its life, ITR700-001 sends a warning telegram to KNX bus. To replace the battery (Fig. 1) release the cover of the sensor with the help of a screwdriver. Insert it into the upper slot. Remove the cover of the socle and remove the battery being careful with the components of the printed circuit.

KNX RF 1 CHANNEL 110 V DC BALLAST DIMMER PUSH BUTTON INTERFACE DIMMER UNIVERSAL INTERFACE



Device	ITR710-003
Power Supply	2 batteries 3V CR2025 (included)
Consumption	>8 years
Type of Load	868,3MHz
Relay Breaking Capacity	< 10dBm
Maximum Capacity	In free field: ~100m Indoors: ~ 30m
1/10V Maximum Input Current	KNX-RF S-Mode
1/10V Maximum Output Current	< 90 RH
Transmission Power	IP 20, Class II
Transmission Range	Operation (-5°C...45°C) Storage (-15°C...55°C)
KNX Media	30,3 °C between -10 °C & +70 °C
Radio Frequency	Non-flammable Product
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...55°C)
Colour	Light Grey
Dimensions	45x42x12 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR710-003 is a one channel KNX RF S-Mode wireless Dimming actuator for 1/10VDC Drivers or Ballasts, with LED or Fluorescence lighting. ITR710-003 is a perfect solution for using in conventional installations without placing KNX bus cables with its bidirectional KNX RF communication functionality. Communication with the KNX Bus must be carried out using a ITR750-002 KNX RF S-Mode media coupler. ITR710-003 has an integrated KNX-RF signal repeater optionally. It can be used to extend the distance between devices

Functions and Characteristics

- Time of soft on and off, maximum and minimum dimming level, behavior after on telegram functions can be configured via ETS.
- Staircase time switch and sequential operation modes.
- The connection of an auxiliary pushbutton (optional) allows local control of the actuator or some other wireless actuator or connected to the bus, as parameterized in the ETS.
- Possibility to configure the state in which it returns after a power fault.
- It has a programming button (1) to carry out its programming.
- Up to 5 Scenes can be stored / called up.
- Programming and commissioning by ETS5 via the KNX-RF USB stick ITR755-001.
- Flush mounted in junction box.

Commissioning

The programming and commissioning must be done with ETS5 or later version:

Carry out the wiring according to wiring diagrams described in "layouts and wirings" section.

-> Supply the actuator. The red LED (3) goes on.

-> Press the programming button (1). The green LED goes on.

-> Transmit physical address and configuration from ETS to device. After successful download the green LED (2) turns off.

Note : The first time the actuator is connected to the mains, as well as after a hard reset, the red and green LED will flash quickly).

Installation

Warning: Disconnect the main supply before the installation!

- Install the dimming actuator according to the schematics / wiring diagram.
- The auxiliary pushbutton input (4) is optional. Can be used for local control of the actual actuator or other wireless actuators connected to the bus (depending on configuration within ETS).
- Before reconnecting the device to the power, verify correct installation and wiring.
- The range of the radio signal depends on various external circumstances. The range can be optimized by the choice of installation location, avoiding placing it close to any possible sources of interference, e.g. metallic surfaces, microwave ovens, etc.

Note : Output contact (L') which allows disconnecting physically the lamps. L' output is a relay contact that opens or closes the power supply to the ballasts/drivers. Installation can be made without using the relay L' as long as for the user is indifferent that the lamps remain at their minimum brightness and keep continuously supplied, or if the off is done by another external breaking device.

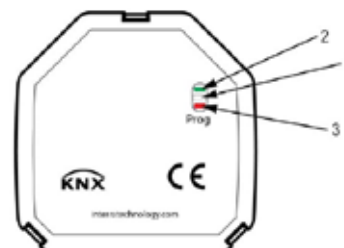
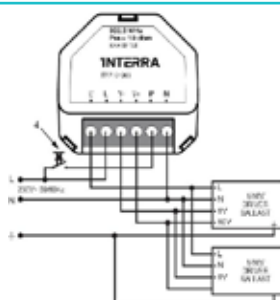
Safety Notes

-> Avoid to install it close to radio electrical devices, microwaves,...

-> Leave a minimum separation of 2m between the transmitter and the receiver.

-> May be used for indoor installations in dry rooms only.

Layouts and Wirings



ITR710-002 - KNX RF 1 CHANNEL LED STRIP DIMMER UNIVERSAL INTERFACE



Device	ITR710-002
Power Supply	12-48V DC
Current	< 12 mA
Radio Frequency	868,3MHz
Transmission Power	< 10dBm
Transmission Range	In free field: ~100m Indoors: ~ 30m
Cable Length	< 10m
KNX Media	KNX RF 1.R
Maximum Load	8A (12V: 96W // 24V: 192W)
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...55°C)
Valid for	Single-color low-voltage LED strips
Type of Protection	IP 20, Class II
Colour	Light Grey
Dimensions	46x46x11 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR710-002 is a one channel KNX RF S-Mode wireless dimming actuator for single-color low voltage LED strips. It allows switching on, switching off and dimming the LED strips. ITR710-002 is a perfect solution for using in conventional installations without placing KNX bus cables with its bi-directional KNX RF communication functionality. Communication with the KNX Bus must be carried out using a ITR750-002 KNX RF S-Mode media coupler. Interra ITR710-002 has an integrated KNX-RF signal repeater optionally. It can be used to extend the distance between devices.

Functions and Characteristics

Time of soft on and off, maximum and minimum dimming level, behavior after on telegram functions can be configured via ETS.

- Staircase time switch and sequential operation modes.
- The connection of an auxiliary pushbutton (optional) allows local control of the actuator or some other wireless actuator or connected to the bus, as parameterized in the ETS.
- Possibility to configure the state in which it returns after a power fault.
- It has a programming button (1) to carry out its programming.
- Up to 5 Scenes can be stored / called up.
- Programming and commissioning by ETS5 via the KNX-RF USB stick ITR755-001.
- Flush mounted in junction box.

Installation

Warning: Disconnect the main supply before the installation!

- Install the dimming actuator according to the schematics / wiring diagram.
- The auxiliary pushbutton input (4) is optional. Can be used for local control of the actual actuator or other wireless actuators connected to the bus (depending on configuration within ETS).
- Before reconnecting the device to the power, verify correct installation and wiring.
- The range of the radio signal depends on various external circumstances. The range can be optimized by the choice of installation location, avoiding placing it close to any possible sources of interference, e.g. metallic surfaces, microwave ovens, etc.

Commissioning

The programming and commissioning must be done with ETS5 or later version: Carry out the wiring according to wiring diagrams described in "layouts and wirings" section.

-> After successful installation set device in operation (by reconnecting supply voltage).

-> Supply the actuator. The red LED (3) goes on.

-> Press the programming button (1). The green LED goes on.

-> Transmit physical address and configuration from ETS to device.

-> After successful download the green LED (2) turns off.

Note : The first time the actuator is connected to the mains, as well as after a hard reset, the red and green LED will flash quickly).

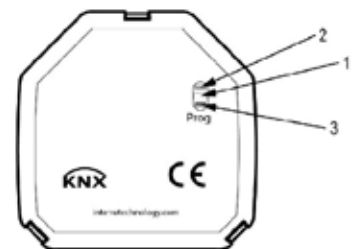
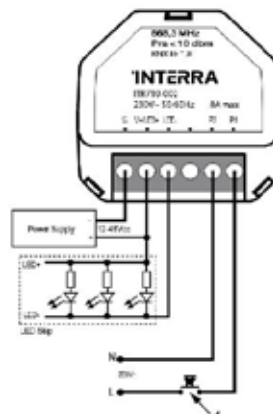
Safety Notes

> Avoid to install it close to radio electrical devices, microwaves,...

-> Leave a minimum separation of 2m between the transmitter and the receiver.

-> May be used for indoor installations in dry rooms only.

Layouts and Wirings



ITR711-001 - KNX RF MULTIFUNCTIONAL ACTUATOR



Device	ITR711-001
Power Supply	230VAC 50/60 Hz
Output Channels	1 Blind/Shutter or 2 Switch On/Off
Output Switching Rating	Q 16A / 250V Motors : 700 VA LED Lamps : 400W Incandescence & 230 V Halogens: 3000W
Number of Inputs	2
Transmission Power	< 10dBm
Transmission Range	range In free field: ~100m, Indoors: ~ 30m
Cable Section	≤ 2,5mm ²
KNX Media	KNX RF 1.R
Radio Frequency	868,3 MHz
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...55°C)
Dimensions	46x46x30 mm (HxWxD)
Certification	KNX Certified
Transmission Power	Configuration with ETS

Description

Interra ITR711-001 is a multifunctional actuator which can work as 2-channel switching actuator or 1-channel Blind/Shutter actuator. It has 2 inputs for conventional pushbutton, which can be configured independently, through the ETS: Switching, Dimming, Blind/Shutter Control, Scenes or Value sending. ITR711-001 is a perfect solution for using in conventional installations without placing KNX bus cables with its bi-directional KNX RF communication functionality. Communication with the KNX Bus must be carried out using a ITR750-002 KNX RF S-Mode media coupler.

Functions and Characteristics

- Time of soft on and off, maximum and minimum dimming level, behavior after on telegram functions can be configured via ETS.
- 1 blind/shutter channel: control of Roller Shutters/Awnings, Venetian Blinds or Venting Louvers.
- 2 switching channels: control of 2 individual loads.
- In case it is configured as 1-channel blinds/shutters actuator, the following alarms and functions are available: Wind alarm, Rain alarm, Frost alarm, Sun Protection function, Scene control and Forced function.
- If it is configured as 2-channel switch actuator, the following functions are available in each channel: Timer, Preset value, Scene control, Logical functions, Forced and Threshold function.
- Flush mounted in junction box.

Installation

Warning: Disconnect the main supply before the installation!

• Connect the load and the power supply to the actuator following one of the two wiring diagrams:

Fig. 1: Control of 2 independent loads.

Fig. 2: Control of 1 Blind/Shutter.

• Connect the inputs to the conventional pushbuttons if it isnecessary.

• Switch-on the mains supply.

Note : The range of the radio signal depends on various external circumstances. The range can be optimized by the choice of installation location avoiding placing it close to any possible sources of interferences, e.g. metallic surfaces, microwave ovens,...

Commisioning

The programming and commissioning must be done with ETS5 or later.

For the commissioning of the actuator, follow these steps:

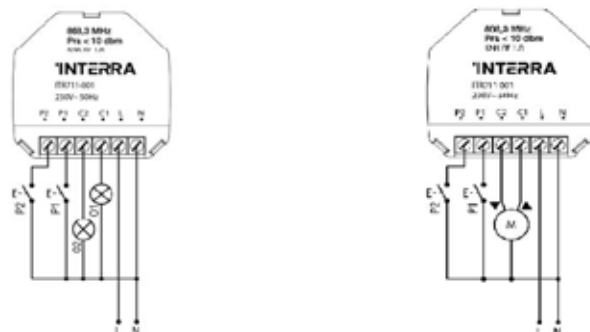
- 1 - Supply the actuator. The red LED goes on.
- 2 - Allocate the physical address and parameterize the application.
- 3 - Press the programming key. The green programming LED will light up and it will be ready for loading the application software to device.
- 4 - Load the physical address and the application software into the actuator. The green LED goes out.
- 5 - If the actuator is not programmed 4 minutes after, the green LED is switched-off and the device comes out from programming mode. If programming is successful, the green LED is also switched-off

Reset

If there is any problem with the actuator, it is possible to do a reset:

- I) Disconnect the 230V mains supply.
- II) Press and keep pressed the programming key.
- III) Connect again the 230V mains supply.
- IV) Release the programming key

Layouts and Wirings



ITR720-001 - KNX RF TEMPERATURE, LUMINOSITY & HUMIDITY SENSOR



Device	ITR720-001
Power Supply	2 batteries 3V CR2032
Battery Life	> 8 years
Operating Range	Relative Humidity: 0 to 100% Temperature: -40 to +125°C Lux: 0.045 to 188,000lux
Measurement Accuracy	Temperature: 30,4° C between -10°C & +85°C Humidity: 34% between 0% & 80%
Transmission Power	< 10dBm
Transmission Range	range In free field: ~100m, Indoors: ~ 30m
KNX Media	KNX RF 1.R
Radio Frequency	868,3 MHz
Type of Protection	IP 20, Class II
Temperature Range	Operation (-10°C...70°C) Storage (-15°C...85°C)
Dimensions	78x28x23 mm (Hx-WxD)
Certification	KNX Certified
Transmission Power	Configuration with ETS

Description

Interra ITR720-001 is a wireless KNX RF S-Mode temperature, luminosity or relative humidity sensor. ITR720-001 is a perfect solution for using in conventional installations without placing KNX bus cables with its bi-directional KNX RF communication functionality. Communication with the KNX bus must be carried out using a ITR750-002 KNX RF S-Mode media coupler.

Functions and Characteristics

The sensor incorporates different options that must be parameterized using the ETS:

Temperature sensor :

- Transmission frequency: according to the time or temperature change
- Over-heating or over-cooling alarms.
- Temperature sensor calibration.

Luminosity sensor :

- Transmission frequency: according to the time or luminosity change.
- Sun Protection or Generic Protection Alarms.
- Luminosity sensor calibration.

Relative Humidity sensor :

- Transmission frequency: according to the time or humidity change.
 - Alarms by high or low humidity.
 - Humidity sensor calibration.
- > It has a (1) programming key (check fig.1).
-> Programming and commissioning by ETS5.
-> Bi-directional communication

Installation

Fix the sensor to the wanted mounting place with the included adhesive strip or with screws. The range of the radio signal depends on various external circumstances. The range can be optimized by the choice of installation location avoiding placing it close to any possible sources of interference, e.g. metallic surfaces, microwave ovens,...

Commisioning

The programming and commissioning must be done with ETS5 or later. For the commissioning of the sensor, follow these steps:

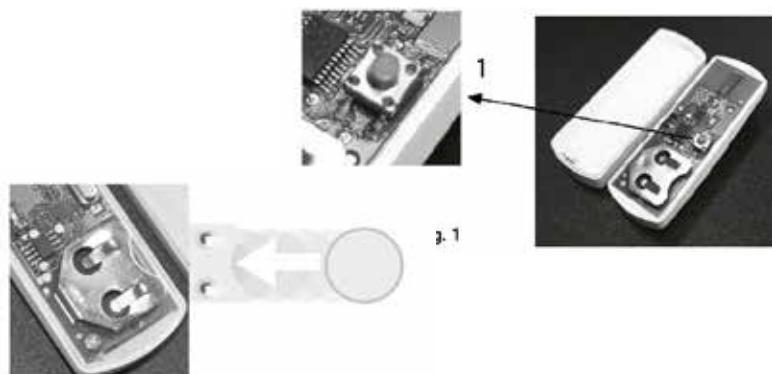
- 1 - Supply the sensor.
- 2 - Press the programming key. The LED goes on.
- 3 - Load the physical address and the application software into the sensor
- 4 - If the programming process has be done correctly, the LED will go out.

Safety Notes

- 1 - Avoid to install it close to radio electrical devices, microwaves,...
- 2 - Leave a minimum separation of 2m between the transmitter and the receiver.
- 3 - May be used for indoor installations.

Battery Replacement

- 1 - Release the cover of the sensor with the help of a screwdriver. Insert it into the upper slot.
- 2 - Remove the cover of the socle and remove the battery being careful with the components of the printed circuit.



ITR740-001 - KNX RF REMOTE CONTROLLER



Device	ITR740-001
Power Supply	1 battery 3V CR2032
Battery Life	>8 years (with <100 act/day)
Radio-Frequency	Codified transmission in 868,4MHz with and a maximum coverage of 100 (in the free field)
Channels	5
Compatible With	RF-KNX
Working Modes	Switch ON/OFF, Dimmer, Blind/Shutter Control, Scenes
Radio Frequency	868,3 MHz. Compatible with KNX-RF
Communication	Bi-directiona
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...65°C)
Type of Protection	IP 20, Class III
Dimensions	105 x 50 x 12mm (Hx-WxD)

Description

Interra ITR740-001 is a Remote control device for RF (compatible with KNX-RF) lightings and blinds/shutters actuators. It can control up to 5 channels and it can create up to 5 different scenes. In addition, all On and all Off control can be made with buttons. Besides, different functions such as save and recall scenes, move up/down blinds/ shutters and switch on/off and dim the lighting are available.

Link Procedure

The remote control has a control knob with 5 positions (check Fig. 1) in order to select the operation mode during the linking procedure:

- 1 - **Blinds/Shutters Control Mode** : Move up/down blinds or shutters.
- 2 - **Switch Mode** : Switch on/off the load.
- 3 - **Standard Mode** : Normal operation mode. After doing the link procedure with the actuator, is necessary to set the ITR740-001's knob in this position.
- 4 - **Dimming Mode** : Switch on/off and dim the lighting.
- 5 - **Scenes Mode** : Save and recall scenes with lighting and/or blinds (move up/down).



Fig. 1

Link One Channel from ITR710-001 with An Actuator

In order to link one channel from the ITR740-001 with an actuator, it is necessary to follow these steps:

- a. Set the actuator in link mode, according to the instructions given by the manufacturer.
- b. Set the ITR740-001's knob in the desired working mode: 1, 2 or 4.
- c. Press the ON key from the channel of the ITR740-001 which is going to be linked for more than 1 second.
- d. Check the acknowledgment of the actuator according to the instructions given by the manufacturer.
- e. Set the control knob of the ITR740-001 at 3 position.

Link One Scene from ITR710-001 with An Actuator

In order to link one scene from the ITR740-001 with an actuator, it is necessary to follow these steps:

- a. Set the actuator in link mode, according to the instructions given by the manufacturer.
- b. Set the ITR740-001's knob in scenes programming mode: 5.
- c. Press the channel key (A, B, C, D or E) for more than 1 second.
- d. Check the acknowledgment of the actuator according to the instructions given by the manufacturer.
- e. Set the control knob of the ITR740-001 at 3 position.

Operation

Before being operative the remote control must be linked to the receptors according to the above point (procedure link). The remote control allows controlling up to 5 different channels and scenes.

Blinds Function (Fig. 2) :

- **Short press:** Step Up / Down.
- **Long press (>1second):** Move Up / Down for 3 minutes:
 - If during this time a short press is done the blind will be stopped.
 - If no press is done during the 3 minutes, the blind will be stopped automatically.
 - If the blind is moving up and a long press is done in the move down key the blind will change its movement direction.

Dimming Function (Fig. 2) :

- **Short press:** Switch On/Off the lighting.
- **Long press (>1second):** Increases or decreases the lighting level.

Switch Function (Fig. 2) :

- **Short press:** Switch On/Off the load..

Dimming Function (Fig. 2) :

- **Long press (2 seconds) :** Saves or create a scene according to the values set in the different channels. The battery's LED will be on for 2 seconds and after saving the scene it will be switched off.
- **Short press :** Recalls a saved scene.

All On / All Off :



It behaves like another channel. It allows switching on the lights at maximum from the linked devices in this channel.



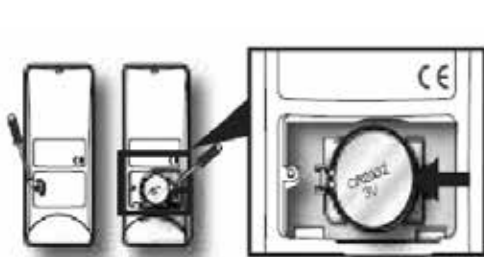
It behaves like another channel. It allows switching off the lights at maximum from the linked devices in this channel.

In order to use these two keys it is necessary to link this channel with the different devices, according to the procedure previously described (Switch mode).

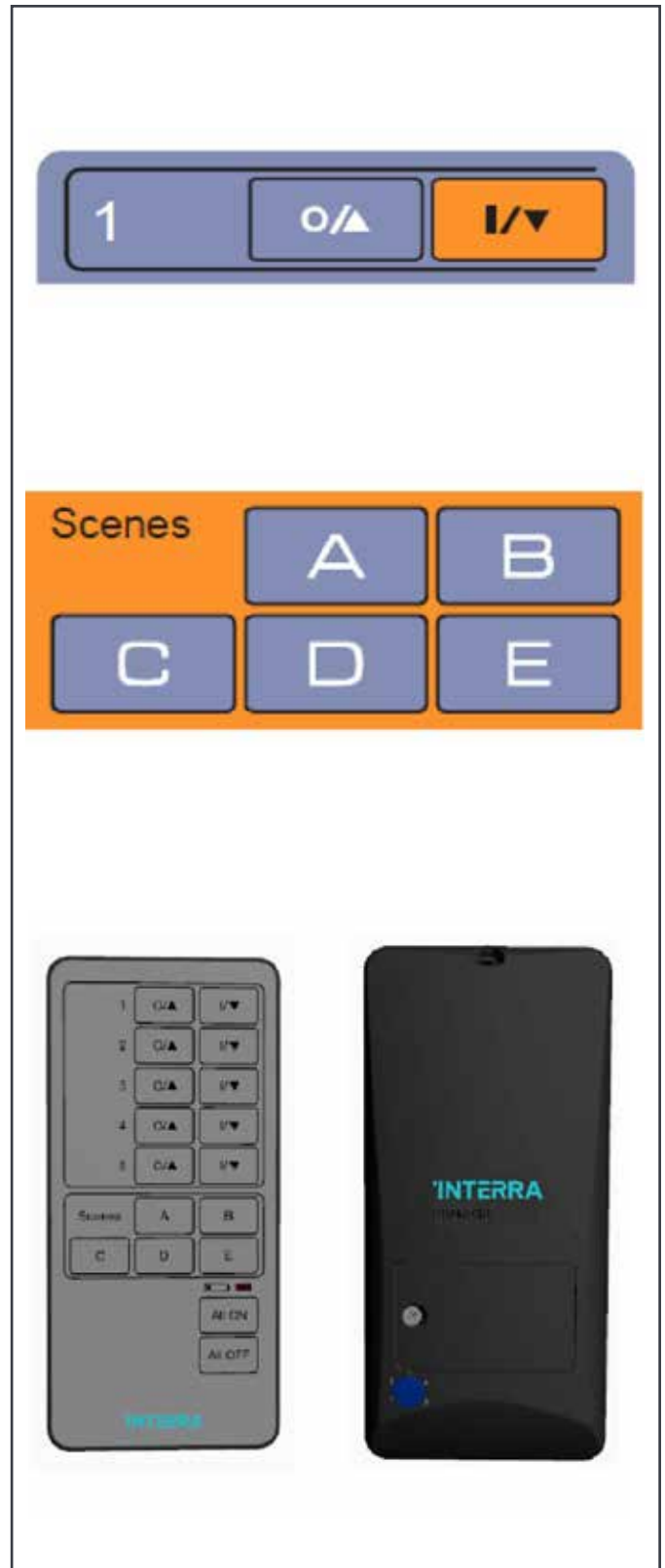
Battery Replacement

Release the cover with help of a screwdriver inserting it into the slots of the two grips. Remove the cover of the socle and change the battery being careful with the components of the printed circuit. When the battery is warned-down the transmitter will send the respective message and a 'battery empty' message each time it is activated.

Battery LED:



This LED will remain on while the keyboard is active and constantly flashes to indicate that the battery is running low.



Recommendations

Avoid using the device near radio equipment or microwaves. Leave at least 2m separation between the control and the associated receiver.

ITR750-001 - KNX RF EASY MODE MEDIA COUPLER



Device	ITR750-001
Power Supply	21 ~ 32 V DC
Power Consumption	RF-TP / TP-RF : 16 Channels
Number of Channels	2
TP Group Address	250
TP Links	250
Transmission Range	In free field: ~100m, Indoors: ~ 30
RF Telegram Repetition	2 Times
Radio Frequency	868,3 MHz. Compatible with KNX-RF
Communication	Bi-directional
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...65°C)
Dimensions	38x42x15 mm (HxWxD)
Bus Connection	With Connecting Terminal
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR750-001 is a KNX-RF / KNX-TP media coupler. It is used as bi-directional gateway to ensure communication between KNX RF Radiofrequency devices and the KNX TP Bus. It allows the transmission of telegrams from the radio devices to the KNX-TP communication bus and vice versa. It can be used with devices to control lighting, HVAC, blinds/shutters and general purpose devices.

Functions and Characteristics

- ITR750-001 comes with 16 RF or TP independent channels.
- The configuration is done using ETS software.
- ITR750-001 has :
 - A: KNX-TP standard connecting terminal.
 - B (TP prog): Green/red LED-key for the commissioning by ETS
 - C: RF working mode selector switch:
 - P : Link Programming.
 - R : Standard operation + Repeater function.
 - S : Standard operation.
 - E : Erase one link.
 - EA : Erase all links.
 - D: Channel selector (up to 16 channels : 0, 1, 2, 3, 4, ... F).
 - E (RF Prog): Green/Red LED-key for learning RF devices.



Commissioning

A-) TP Commissioning :

For installation and commissioning of the device, follow these steps:

- I) Connect the ITR750-001 media coupler to the KNX Bus.
- II) Assign physical address and assign parameters to the application program
- III) Press briefly the programming key (B). The green LED will permanently light and the device will be ready to be programmed by ETS. After the programming (30sec) the LED will flicker in red.
- IV) Once programmed, the LED will be off.

B-) RF Learning Process:

In order to link the ITR750-001 with a wireless device follow these steps:

- I) Set the channel selector (D) at the corresponding position, according to the previously configured by the ETS. Choose the channel in which is going to be programmed the RF device.
- II) Place the mode selector switch (C) at 'P' position (link mode).
- III) The LED-key (E) will flicker slowly in green.
- IV) Press briefly the LED-key (E). It will start flickering quickly in green. At this moment is ready to receive the RF signal from a RF sensor or actuator
- V) Follow the instructions for programming the RF sensor or actuator to send its link code.
- VI) If the link is successful, the LED-key (E) will be in green permanent during 2 seconds and then it will return to blink slowly in green.
- VII) Set the mode switch (C) to 'S' (normal operation) or to 'R' (normal + repeater). In both modes the LED-key (E) will be in green.

B.1 - Erasing a RF Link (E)

In order to do a partial deletion of a link, the next steps must be followed:

- I) Place the mode switch (C) to 'E' (link erasing). The LED-key (E) will be permanently in green.
- II) Press briefly the LED-key (E). It will start flickering quickly in green. At this moment is ready to receive the RF signal from a RF sensor or actuator.
- III) Follow the instructions for deleting the RF sensor or actuator.
- IV) If the deletion is successful, the LED-key (E) will flash five times in red and then it will return to light permanently in green.

B.2 - RF Complete Deletion (EA: Reset)

In order to do a complete deletion, the next steps must be followed:

- I) Place the mode switch (C) to 'EA' (Erase All). The LED-key (E) will flicker quickly in green.
- II) Press the LED-key (E) for longer than 4 seconds.
- III) If the deletion is successful, the LED-key (E) will be 4 seconds in green and then it will flicker quickly

KNX RF 1 CHANNEL LED LAMP DIMMER



Device	ITR710-001
Power Supply	230V~ 50/60Hz
Current	30 mA
Radio Frequency	868,3MHz
Transmission Power	< 10dB m
Transmisson Range	In free field: ~100m Indoors: ~ 30m
Cable Length	< 10m
KNX Media	KNX RF 1.R
Temperature Accuracy	30,3 °C between -10 °C & +70 °C
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...55°C)
Flammability	Non-flammable Product
Colour	Light Grey
Dimensions	46x46x11 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR710-001 is a one channel KNX RF S-Mode wireless dimming actuator for LED lamps. It can control dimmable LED lamps, incandescent and halogen lamps. ITR710-001 is a perfect solution for using in conventional installations without placing KNX bus cables with its bi-directional KNX RF communication functionality. Communication with the KNX Bus must be carried out using a ITR750-002 KNX RF SMode media coupler. Interra ITR710-001 has an integrated KNX-RF signal repeater optionally. It can be used to extend the distance between devices.

Functions and Characteristics

Leading or trailing edge type of dimming, time of soft on and off, maximum and minimum dimming level, behavior after on telegram configurations can be made via ETS.

- Staircase time switch and sequential operation modes.
- Auxiliary Pushbutton input with configurable operation.
- Adjustable behavior in case of bus voltage failure.
- It has a programming button (1) to carry out its programming.
- Staircase lighting timer function with (optional) advanced warning function.
- Up to 5 Scenes can be stored / called up.
- Valid for dimmable LED lamps, Incandescent and Halogen lamps.
- Programming and commissioning by ETS5 via the KNX-RF USB stick ITR755-001.

Installation

Warning: Disconnect the main supply before the installation!

- Install the dimming actuator according to the schematics / wiring diagram.
- The auxiliary pushbutton input (4) is optional. Can be used for local control of the actual actuator or other wireless actuators connected to the bus (depending on configuration within ETS).
- Before reconnecting the device to the power, verify correct installation and wiring.
- The range of the radio signal depends on various external circumstances. The range can be optimized by the choice of installation location, avoiding placing it close to any possible sources of interference, e.g. metallic surfaces, microwave ovens, etc.

Commisioning

The programming and commissioning must be done with ETS5 or later version:

Carry out the wiring according to wiring diagrams described in "layouts and wirings" section.

-> After successful installation set device in operation (by reconnecting supply voltage).

-> The red LED (3) turns on.

-> Press the programming button (1) briefly. The green LED (2) turns on.

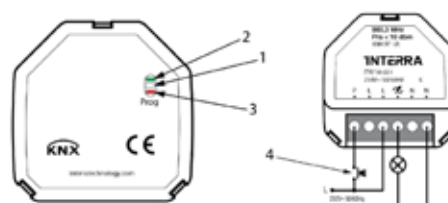
-> Transmit physical address and configuration from ETS to device.

-> After successful download the green LED (2) turns off.

Note : The first time the actuator is connected to the mains, as well as after a hard reset, the red and green LED will flash quickly).

230V LED lamps dimmable by Lead-ing-edge	4W - 100W
230V LED lamps dimmable by Trailing-edge	4W ~ 250W
12V dimmable LED lamps with Electronic Transformer	250W (of transformer)
Incandescence & 230V Halogens	250W
12V Halogen lamps with Electronic Trans-former	250W
12V Halogen lamps with Inductive Trans-former	Does not admit

Layouts and Wiring



ITR710-002 - KNX RF 1 CHANNEL LED STRIP DIMMER



Device	ITR710-002
Power Supply	12-48V DC
Current	RF-TP / TP-RF : 16 Channels
Radio Frequency	868,3MHz
Transmission Power	< 10dBm
Valid for	Single-color low-voltage LED strips
Transmission Range	In free field: ~100m Indoors: ~ 30m
Maximum Load	8A (12V: 96W // 24V: 192W)
Cable Length	< 10m
KNX Media	KNX RF 1.R
Type of Protection	IP 20, Class II
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...65°C)
Dimensions	38x42x15 mm (HxWxD)
Colour	Configuration with ETS
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR710-002 is a one channel KNX RF S-Mode wireless dimming actuator for single-color low voltage LED strips. It allows switching on, switching off and dimming the LED strips. ITR710-002 is a perfect solution for using in conventional installations without placing KNX bus cables with its bi-directional KNX RF communication functionality. Communication with the KNX Bus must be carried out using a ITR750-002 KNX RF S-Mode media coupler. Interra ITR710-002 has an integrated KNX-RF signal repeater optionally. It can be used to extend the distance between devices.

Functions and Characteristics

- Time of soft on and off, maximum and minimum dimming level, behavior after on telegram functions can be configured via ETS.
- Staircase time switch and sequential operation modes.
- The connection of an auxiliary pushbutton (optional) allows local control of the actuator or some other wireless actuator or connected to the bus, as parameterized in the ETS.
- Possibility to configure the state in which it returns after a power fault.
- It has a programming button (1) to carry out its programming.
- Up to 5 Scenes can be stored / called up.
- Programming and commissioning by ETS5 via the KNX-RF USB stick ITR755-001.
- Flush mounted in junction box.

Installation

Warning: Disconnect the main supply before the installation!

- Install the dimming actuator according to the schematics / wiring diagram.
- The auxiliary pushbutton input (4) is optional. Can be used for local control of the actual actuator or other wireless actuators connected to the bus (depending on configuration within ETS).
- Before reconnecting the device to the power, verify correct installation and wiring.
- The range of the radio signal depends on various external circumstances. The range can be optimized by the choice of installation location, avoiding placing it close to any possible sources of interference, e.g. metallic surfaces, microwave ovens, etc.

Commissioning

The programming and commissioning must be done with ETS5 or later version: Carry out the wiring according to wiring diagrams described in "layouts and wirings" section.

-> After successful installation set device in operation (by reconnecting supply voltage).

-> Supply the actuator. The red LED (3) goes on.

-> Press the programming button (1). The green LED goes on.

-> Transmit physical address and configuration from ETS to device.

-> After successful download the green LED (2) turns off.

Note : The first time the actuator is connected to the mains, as well as after a hard reset, the red and green LED will flash quickly).

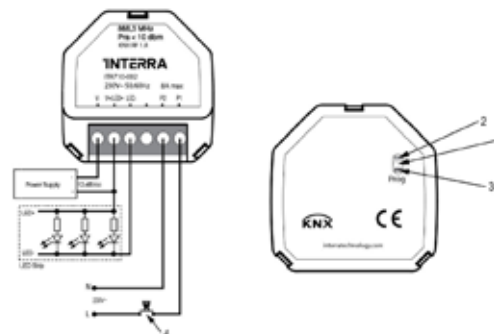
Safety Notes

-> Avoid to install it close to radio electrical devices, microwaves,...

-> Leave a minimum separation of 2m between the transmitter and the receiver.

-> May be used for indoor installations in dry rooms only.

Layouts and Wirings



ITR750-002 - KNX RF/TP S-MODE SECURE MEDIA COUPLER



Device	ITR750-002
Power Supply	21 - 32 V DC
Power Consumption	< 10 mA
Buttons & LEDs	9 LEDs & 2 buttons
Security	RF/TP Medium KNX Security (AES-128) Extended filter table for main group 0..31 Max. APDU length: 55
Housing	Transparent plastic (ABS) Matches in a standard flush-mounted box
Radio Frequency	KNX RF, ISM Band 868,3 MHz, FSK
RF Output Power	6 dBm
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...65°C)
Dimensions	48x40x18 mm (HxWxD)
Bus Connection	Connection for KNX Bus (Red/Black)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR750-002 is a KNX RF/TP S-Mode secure media coupler is a compact KNX radio coupler which supports KNX Data Security. It connects KNX RF devices of a radio line with the KNX Bus Twisted Pair. The device has an extended filter table for main group 0..31. The coupler supports long frames and is compatible with the ETS® software ETS5 or higher.

The buttons on the front panel allow disabling the telegram filter for testing purposes. The LEDs indicate operating conditions as well as communication errors on the KNX bus. The power is supplied via the KNX bus (main line).

Functions and Characteristics

- Manual control of TP can be made. Manual control can be locked in the ETS database.
- Manual control of RF can be made. Manual control can be locked in the ETS database.
- The physical address of the KNX RF/TP S-Mode secure media coupler corresponds to the form x.y.0 (x, y: 1..15). Thus the device functions as a line coupler.
- The ITR750-002 has a filter table and thus helps to reduce the bus load. The filter table supports the extended group address range (main groups 0..31) and is automatically generated by the ETS.



Installation

Mounting can be recessed in the wall and thus almost “invisible”, because the housing has the right size for mounting in a standard flush-mounted box.

When selecting the mounting location, the range of the radio devices to be connected to the device must be taken into account. Shielding objects (e.g. metal cabinets) or interfering transmitters (e.g. computers, electronic transformers, ballasts) near the gateway should be avoided.

The device is connected to the KNX bus by means of a bus terminal. The correct polarity of the terminal as printed on the device must be observed.

Safety Notes

Mounting can be recessed in the wall and thus almost “invisible”, because the housing has the right size for mounting in a standard flush-mounted box.

When selecting the mounting location, the range of the radio devices to be connected to the device must be taken into account. Shielding objects (e.g. metal cabinets) or interfering transmitters (e.g. computers, electronic transformers, ballasts) near the gateway should be avoided.

The device is connected to the KNX bus by means of a bus terminal. The correct polarity of the terminal as printed on the device must be observed.

Reset Factory Settings

It is possible to reset the device to these factory settings.

- Disconnect the KNX bus connection (3) from the device
- Press KNX programming button (1) and hold down
- Restore KNX bus connection to (3) the device.
- Keep the programming button (1) pressed for at least 6 seconds.
- A short flashing of all LEDs (2), (4) and (5) indicates the successful reset to factory settings.

I ITR900-164/132/116 KNX POWER SUPPLY



Devices	ITR900-164 ITR900-132 ITR900-116
Power Supply	230 VAC(+/- %10)
Power Consumption (Max)	55 W (ITR900-164) 30 W (ITR900-132) 21 W (ITR900-116)
Power Consumption (Typical)	24 W (ITR900-164) 12.5 W (ITR900-132) 6.6 W (ITR900-116)
Rated Current (Total)	640 mA (ITR900-164) 320 mA (ITR900-132) 160 mA (ITR900-116)
Rated Voltage	30 VDC
Maximum Air Humidity	< 90 RH
Type of Protection	IP 20
Temperature Range	Operation(-5°C...45°C) Storage (-25°C...55°C)
Colour	KNX Certified
Dimensions	Configuration with ETS

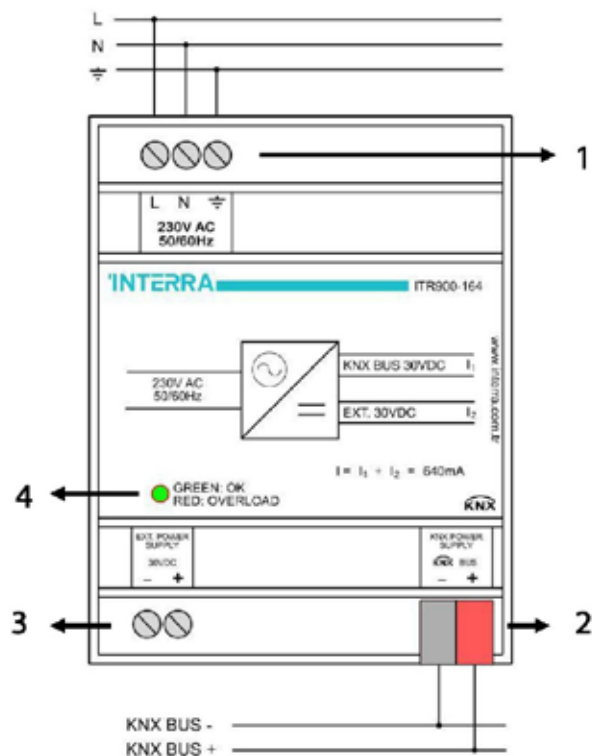
Description

ITR900-164/132/116 KNX Power Supplies generate the KNX system voltage (SELV). For this purpose, 3 different models have been developed considering the needs. Main differences between models are power supply consumptions and rated currents. The bus line is decoupled from the power supply by an integrated choke. The two color LED indicates device output status.

Mounting, Commissioning and Safety Notes

- The device may only be installed and put into operation by a qualified electrician or authorized personnel.
- Mounting Location: Installation only on a 35 mm DIN rail of a distribution board.
- Device needs at least 4 standard modules width at installation.
- Screw down strength is less than 0.4Nm.
- Avoid contact with rain, liquids and corrosive gases.
- Check Connections: Re-tighten all connections after installation.
- Cable Connections: Do not get wrong connection for KNX Black and Red wires, device input AC wires and external supply output wires.
- Power supply has an additional 30 VDC short circuit and overload protected voltage output that can be used to power an additional bus line (in combination with a separate choke).
- The voltage output is overload, short circuit and over temperature protected.
- Output without choke can be used as a constant 30 VDC supply and output with choke can be used as a KNX Bus supply.

Connection Diagram



1. Line Input 230 VAC(+/- %10)
2. KNX BUS
3. External Supply Output
4. LED Indication
 - Green: OK (Trouble-Free).
 - Red: Overload.
 - Red (Flashing) : Short Circuit.

ITR901-001 - KNX IP ROUTER

Description



ITR901-001 is a KNXnet/IP routing & tunneling device and works as KNX IP line/area coupler. An external power supply is not necessary. The ability to address all bus devices in the KNX bus system makes network operations less time-consuming. Operational and filtering states, malfunction and faulty communication are indicated by LEDs. UPnP is available and the firmware can be updated by a comfortable Web front-end.

ITR901-001 connects the two communication media Ethernet/ KNX IP and KNX TP to feature (for all bus devices connected):

- Commissioning
- Addressing
- Setting parameters
- Visualization
- Protocol
- Diagnostic operations

Device	ITR901-001
Power Supply	12V, PoE
Current Connection	< 20mA
IP Connection	RJ45 Ethernet Connector
Mode of Commissioning	S-Mode
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Maximum Air Humidity.	< 90RH
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	90x36x71 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

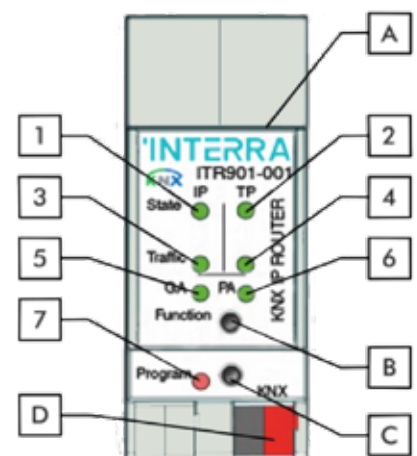
ITR900-001 is able to filter the traffic according to the installation place in the bus system hierarchy and according to the built-in filter tables for group oriented communication. Configuring from the subline can be blocked. Message filtering can be temporarily deactivated by a single button press. The time period to automatically switch back to normal operation is ETS-configurable. To ease commissioning, temporary access to other lines is possible also without download from the ETS.

Mounting, Commissioning and Safety Notes

- The device may only be installed and put into operation by a qualified electrician or authorized personnel.
- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- For mounting only use an appropriate equipment according to IEC60715.
- Installation only in distribution boards and enclosed housings.
- Installation only on a 35 mm DIN rail (TH35).
- Connect the KNX bus line as for common KNX bus connections with a KNX bus cable, to be stripped and plugged into a KNX TP connector.
- Do not damage electrical insulations when connecting.
- Installation only in dry locations.
- Accessibility of the device for operation and visual inspection must be provided.
- For commissioning use the ETS.

Connection Diagram

1. State IP
 - Green: IP OK
 - Red: Manual Function active
2. KNX Bus State
 - Green: Bus OK
3. IP Telegram Traffic
 - Green: Telegram traffic extant
 - Red: Transmission error
4. KNX Telegram Traffic
 - Green: Telegram traffic extant
 - Red: Transmission error
5. Group Address Routing
 - Green: Filter active
 - Orange: Route all
 - Red: Block all
 - Off: IP / KNX line different
6. Physical Address Routing
 - Green: Filter active
 - Orange: Route all
 - Red: Block all
 - Off: IP / KNX line different
7. Programming
 - Red: Program Mode
 - Red blink: No IP connection



- A. Ethernet connector
- B. Function button
- C. Program button
- D. KNX TP connector

ITR901-002 - KNX LINE COUPLER



Device	ITR901-002
Power Supply	KNX TP Main Line 21...30 V DC KNX TP Sub Line 21...30 V DC
Current Consumption	< 10mA
Connections	KNX TP Main Line KNX TP Sub Line
Mode of Commissioning	S-Mode
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Maximum Air Humidity	< 90RH
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	90x36x71 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Basic functionality of the TP line coupler ITR901-002 is coupling two KNX TP lines (main line and subline) providing galvanic isolation in between. Due to its flexibility ITR901-002 coupler unit can be used as KNX line coupler or KNX area coupler (to connect a TP line to a TP area or backbone) or KNX repeater (without filtering). Operational and filtering states, malfunction and faulty communication are indicated by LEDs.

ITR901-002 is able to filter the traffic according to the installation place in the bus system hierarchy and according to the built-in filter tables for group oriented communication.

ITR901-002 supports long messages (up to 240 byte APDU length) and features, for commissioning / troubleshooting, a configurable "Manual Function" with single button press activation and automatic switch-off to temporarily deactivate filtering. Available functions are:

- Suppress device configuration from the subline.
- Suppress device oriented telegrams.
- Trace the subline traffic.
- Enable/disable filtering of Group telegrams or Physical telegrams.
- Reduced number of retransmissions option available.
- Diagnostic functions.

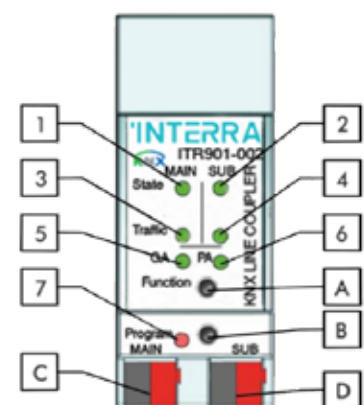
ETS database file is available at www.interra.com.tr

Mounting, Commissioning and Safety Notes

- The device may only be installed and put into operation by a qualified electrician or authorized personnel.
- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied.
- For mounting only use an appropriate equipment according to IEC60715.
- Installation only in distribution boards and enclosed housings.
- Installation only on a 35 mm DIN rail (TH35).
- Connect the KNX bus line as for common KNX bus connections with a KNX bus cable, to be stripped and plugged into a KNX TP connector.
- Do not damage electrical insulations when connecting.
- Installation only in dry locations.
- Accessibility of the device for operation and visual inspection must be provided.
- For commissioning use the ETS.

Connection Diagram

1. Bus state KNX TP (Main line)
 - Green: Main line OK
 - Red: Manual Function active
2. Bus state KNX TP
 - Green: Subline OK
3. Telegram traffic KNX TP
 - Green blink: Telegram traffic extent
 - Red blink: Transmission error
4. Group Address Routing
 - Green: Filter active
 - Orange: Route all
 - Red: Block all
 - Off: IP / KNX line different
5. Group Address routing
 - Green: Filter active
 - Orange: Route all
 - Red: Block all
 - Off: Main line / subline different
6. Physical Address routing
 - Green: Filter active
 - Orange: Route all
 - Red: Block all
 - Off: Main line / subline different
7. Programming
 - Red: Program Mode



- A. Function button
- B. Program button
- C. KNX TP connector Main line
- D. KNX TP connector Subline

ITR901-003 - KNX USB INTERFACE



Device	ITR901-003
Power Supply	KNX TP Line, 21...30 V DC USB , 5 V DC
Current Consumption	< 5 mA (KNX TP line) < 20 mA (USB)
Connections	KNX TP and USB Type B
Mode of Commissioning	S-Mode
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...60°C)
Maximum Air Humidity.	< 90RH
Flammability	Non-flammable Product
Colour	Light Grey and White
Dimensions	90x36x71 mm (HxWxD)
Certification	KNX Certified
Configuration	Configuration with ETS

Description

The KNX USB interface ITR901-003 provides a galvanic isolated bi-directional connection to the bus system via KNX TP and USB. Network configurations become less time-consuming with ITR901-003. ITR901-003 is supplied by both the KNX TP line and USB. No additional external power supply is necessary.

ITR901-003 establishes access to all bus devices connected to feature :

- Commissioning
- Addressing
- Setting parameters
- Visualization
- Protocol
- Diagnostic operations

ITR901-003 supports the USB suspend mode. Communication protocol used for communication between interface and host is the flexible cEMI (Common External Message Interface) protocol.

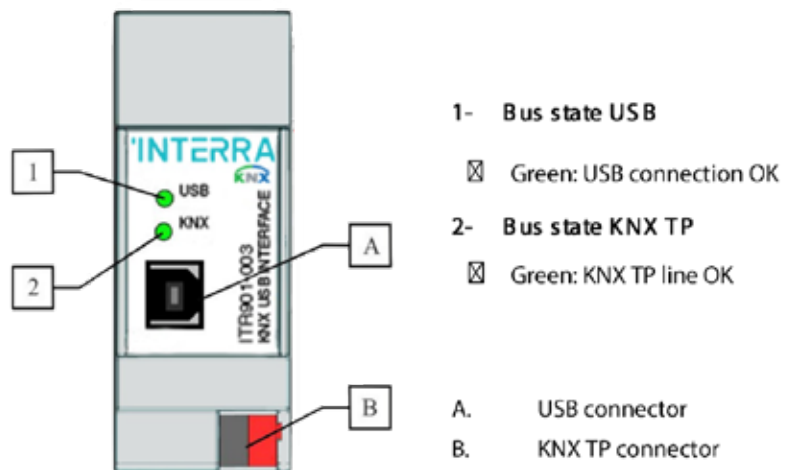
The connection between KNX and a PC with standard software (like ETS, EITT; also in Raw Frame operating mode) or other software is handled by the FALCON driver. Long messages (up to 220 byte APDU length) are supported and easy software handling also under operating systems not supported by the FALCON driver (e.g.: Linux) is ensured.

ETS database file is available at www.interra.com.tr

Mounting, Commissioning and Safety Notes

- The device may only be installed and put into operation by a qualified electrician or authorized personnel
- For planning and construction of electric installations the appropriate specifications, guidelines and regulations in force of the respective country have to be complied
- For mounting only use an appropriate equipment according to IEC60715
- Connect the KNX bus line as for common KNX bus connections with a KNX bus cable, to be stripped and plugged into the KNX TP connector
- Take care of the electric insulations when connecting
- Installation only in dry locations within distribution boards or enclosed housing with TH35 mounting rail
- For commissioning use the ETS
- Accessibility of the device for operation and visual inspection must be provided
- Protect the device from moisture, dirt and damage
- The housing must not be opened
- The device needs no maintenance
- If necessary, the device can be cleaned with a dry cloth

Connection Diagram



ITR901-004 - KNX IP INTERFACE



Device	ITR901-004 1
Power Supply	21 ~ 32 V DC
Power Consumption	< 15 mA
Controls & Indicators	2 buttons & 3 LEDs, multi-color
KNX	TP Medium Interface Protocol : cEMI Device Model : System 7 Max. APDU length: 55
Ethernet	10 Mbit/s Protocols : ARP,IMCP,IG-MP,UDP/IP,DHCP,AUTO IP Up to 5 KNXnet/IP tunneling connections simultaneously
Housing	Plastic (PC) Matches in a standard flush-mounted box
Type of Protection	IP 20
Temperature Range	Operation (-5°C...45°C) Storage (-15°C...65°C)
Dimensions	48x40x18 mm (HxWxD)
Connection	1x KNX Bus Connector (Red/Black), 1x RJ-45 Socket
Certification	KNX Certified
Configuration	Configuration with ETS

Description

Interra ITR901-004 KNX IP Interface serves as a universal interface for PC or Laptop to the KNX bus. The KNX bus can be accessed from any point on the LAN. ITR901-004 can be used as a programming interface for ETS® from the ETS 3.0f version. Moreover, for access via KNXnet/IP Tunneling max. 5 simultaneous connections are possible. In addition, the IP address can be obtained by a DHCP server or by manual configuration (ETS) respectively. The power is supplied via the KNX bus.

KNX LED:

LED Status	Meaning
LED lights green	KNX bus voltage available
LED flickers green	Telegram traffic on the KNX bus
LED shortly red	Communication failures on the KNX bus

KNX LED:

LED Status	Meaning
LED lights green	The device has an active Ethernet link and valid IP settings.
LED lights red	The device has an active Ethernet link and invalid IP settings or not yet received the IP settings by a DHCP server.
LED flickers green	IP telegram traffic

KNX LED:

LED Status	Meaning
LED lights green	Device is working in standard operation mode.
LED lights red	Programming mode is active
LED flashes green 1x..5x	Programming mode is not active. Manual operation is active. The selected tunnel (1 -5) is not used and free.
LED flashes orange 1x...5x	Programming mode is not active. Manual operation is active. The selected tunnel (1 -5) is used.
LED flashes red	Programming mode is not active. Manual operation is not active. The device is not properly loaded e.g. after an interrupted download.

Installation

ITR901-004 KNX IP Interface is designed for installation on a DIN rail with a width of 1 unit (18mm). It features the following controls and displays :



- 1 KNX Bus Connector
- 2 LED for Programming Mode (red)
- 3 Button for Programming Mode
- 4 LED KNX (multicolor)
- 5 LED Mode (multicolor)
- 6 LED IP (multicolor)
- 7 Button Connection up
- 8 Button Connection down
- 9 Ethernet/LAN Connector

Safety Notes

- The device must be mounted and commissioned by an authorized electrician.
- The prevailing safety rules must be heeded.
- The device must not be opened.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

Reset Factory Settings

- It is possible to reset the device to these factory settings.
- Disconnect the KNX bus connection (1) from the device
 - Press KNX programming button (3) and hold down
 - Restore KNX bus connection to (1) the device.
 - Keep the programming button (3) pressed for at least 6 seconds.
 - A short flashing of all LEDs (2), (4), (5) and (6) indicates the successful reset to factory settings.

ITR102/104/106 - KNX UNIVERSAL INTERFACE



Devices	ITR102 ITR104 ITR106
Power Supply	EIB Power Supply
Power Consumption	50 mW
Number of Inputs	2,4 or 6
Type of Inputs	Dry Contact Inputs
Mode of Commissioning	S-Mode
Type of Protection	Non-flammable Product
Temperature Range	Operation (-5°C...45°C) Storage (-25°C...60°C)
Flammability	Non-flammable Product
Colour	Light Grey
Dimensions	40x10x40 (WxLxH)
Certifications	KNX Certified
Configuration	Configuration with ETS

Description

ITR102/104/106 KNX universal interfaces are the devices with 3 different options. According to the number of inputs they have 2,4 or 6 inputs. ITR102/104/106 devices are used to interface the contacts to KNX bus sub-structure such as push buttons, switches etc. to make them communicating devices.

Mounting, Commissioning and Safety Notes

- The device may only be installed and put into operation by a qualified electrician or authorized personnel.
- The device is inserted in a flush-mounted combined joint box.
- The installation location should not be in the outdoor area.
- The voltage potentials on the lines connecting the contacts are not electrically isolated from the bus voltage.
- Permitted cable length can be up to 5 meters and unused wires should be insulated.
- Avoid contact with liquids and corrosive gases.
- Do not get wrong connection for KNX Black and Red wires.
- The connection of the input cables of the device from the KNX bus or any other external voltage source must be completely isolated.
- Please do not forget to recheck all connections after installation.

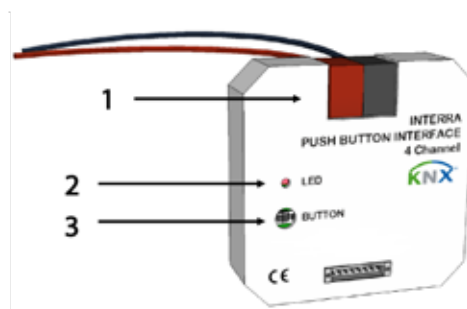
Configuration and Features

The complete configuration of the device is performed via ETS3 or higher. Depending on ETS configuration and settings the product feature will be different. Available functions are:

- Switching
- Dimming
- Toggle
- Blind Control
- 2 Channel
- Value Selected

Most of functions only need one input and therefore each input might be assigned a different function. However there are also some functions which use two inputs such as “Dimming with 2 buttons” and “Shutter/Blinds with 2 buttons”.

Connection and Wirings Diagram



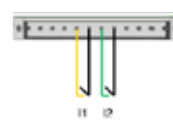
1. KNX Bus Connection

2. LED Indication

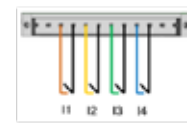
• Red : Device status as physical addressing and the presence of KNX.

3. Physical Addressing Button

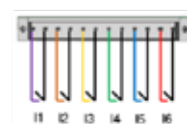
• This button is used to give physical address to devices and to verify the bus presence.



ITR102



ITR104



ITR106

iConnect



Hardware Features

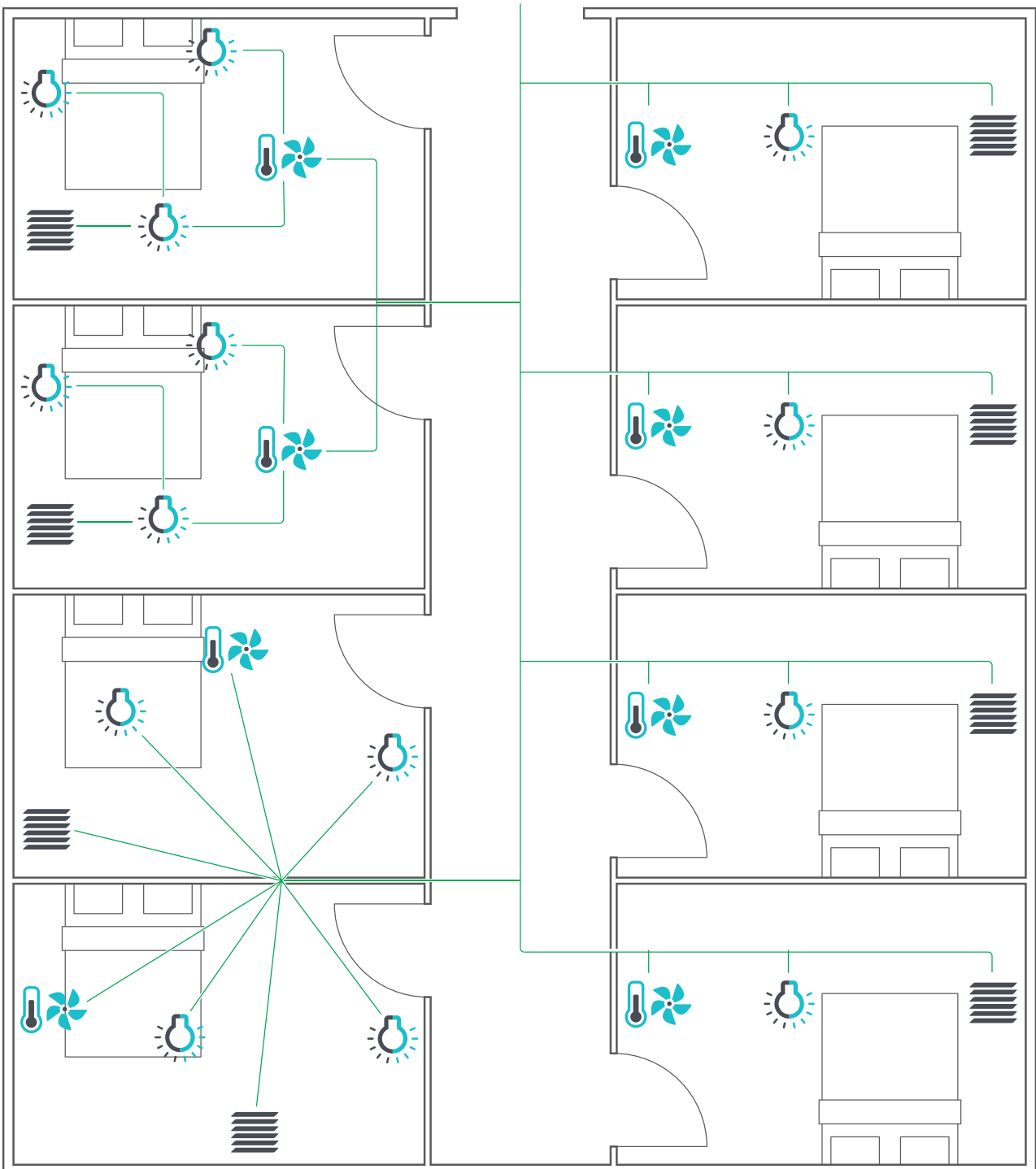
- 230 VAC 50Hz 3 5%
- Miniature and Embedded KNX Power Supply
- 1 x KNX Port
- 1 x Ethernet Port
- 1x RS485 Port
- 1 x USB2.0
- Manual Control Button
- 1 x Real Time Clock
- 8GB EMMC
- 512 MB DDR3 Memory

-
- High voltage protection in digital inputs (230 VAC)
 - Miniature KNX power supply short circuit protection
 - Electrically 100% isolated architecture
 - 100% compliance with EMC / LVD standards

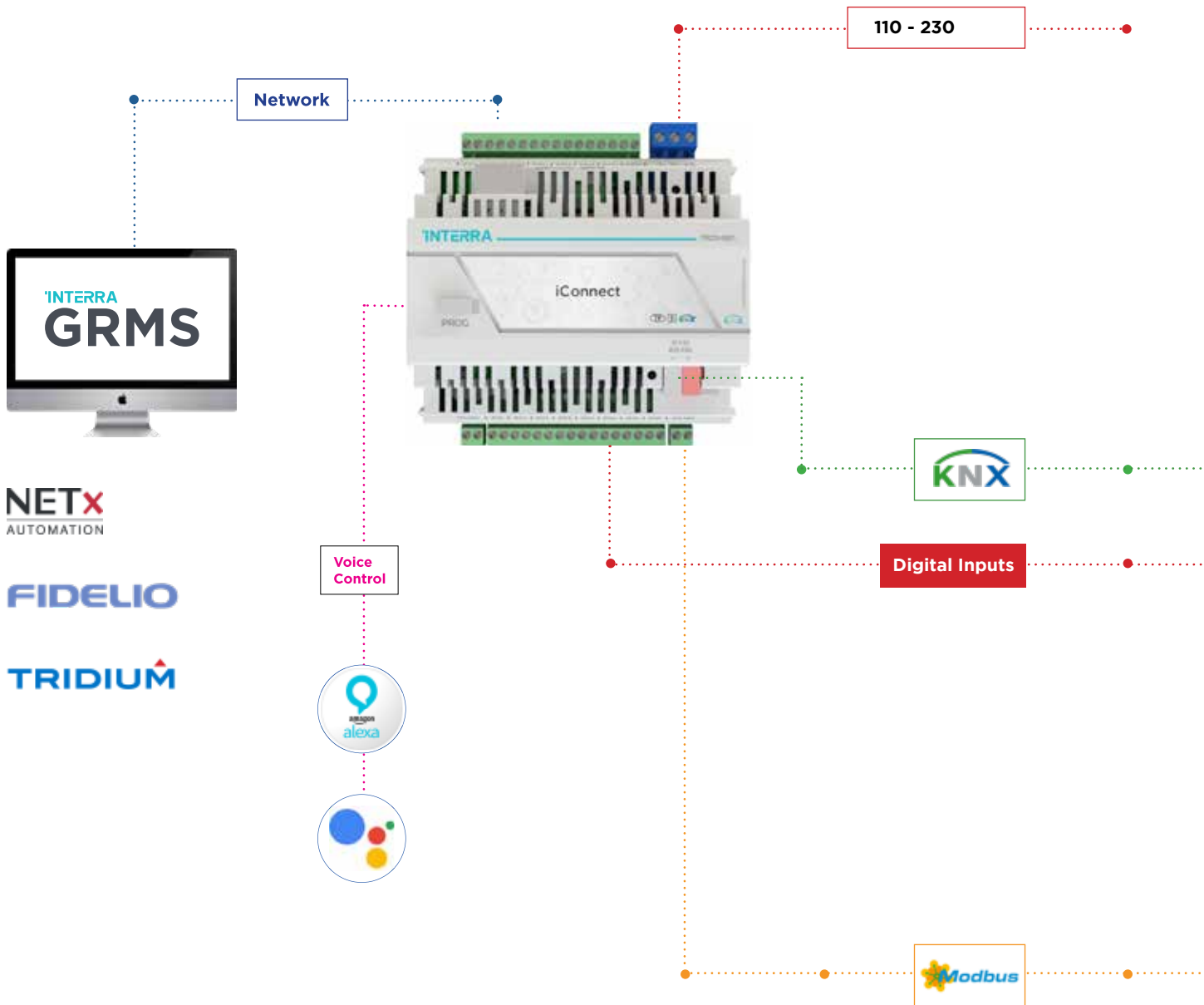
Software Features

- Installation, control and monitoring of automation system with visual programming interface via KNX, MODBUS and Ethernet
- 100% programmable automation interface
- Portable Linux Armbian operating system (Ubuntu 16.04)
- Software update via Ethernet and USB
- Return to factory software with the help of manual buttons

'INTERRA GRMS



iConnect wiring diagram



Iswitch



DND/MUR



Imini



Interra Touch Panel



IP Router Line Coupler USB Interface



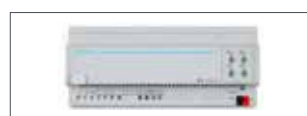
Daikin Gateway Mitsubishi Gateway



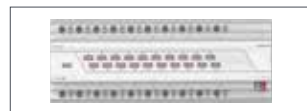
Power Supply IR Emitter



Dimmer Module



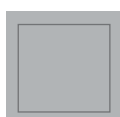
Combo



Sensors



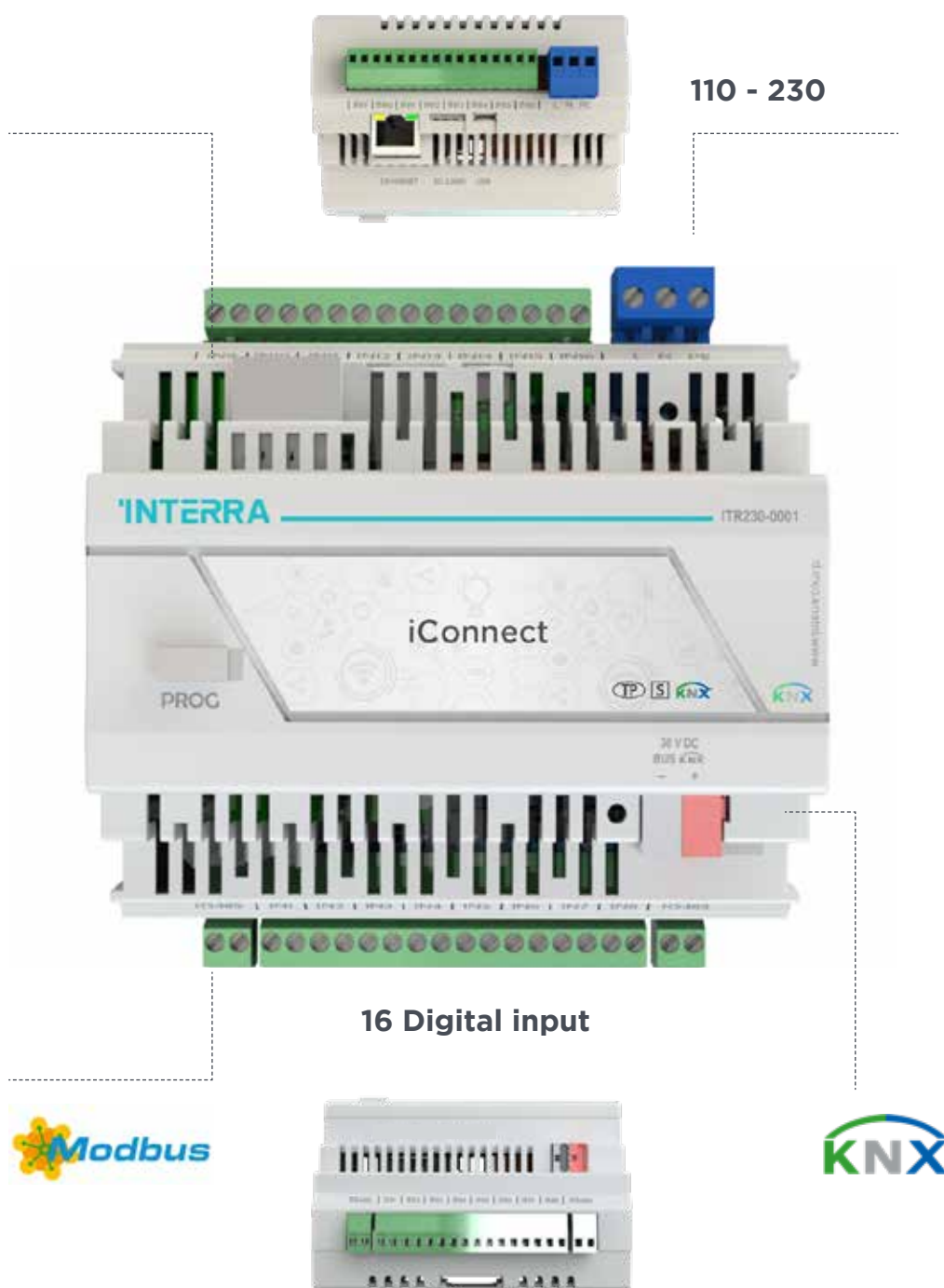
Scenerios



iConnect

Room Control Unit

KNX, Modbus and 16 Digital Input, ethernet, embedded KNX Power supply, integrated Ip interface, extended function blocks, Linux, Nodred Framework





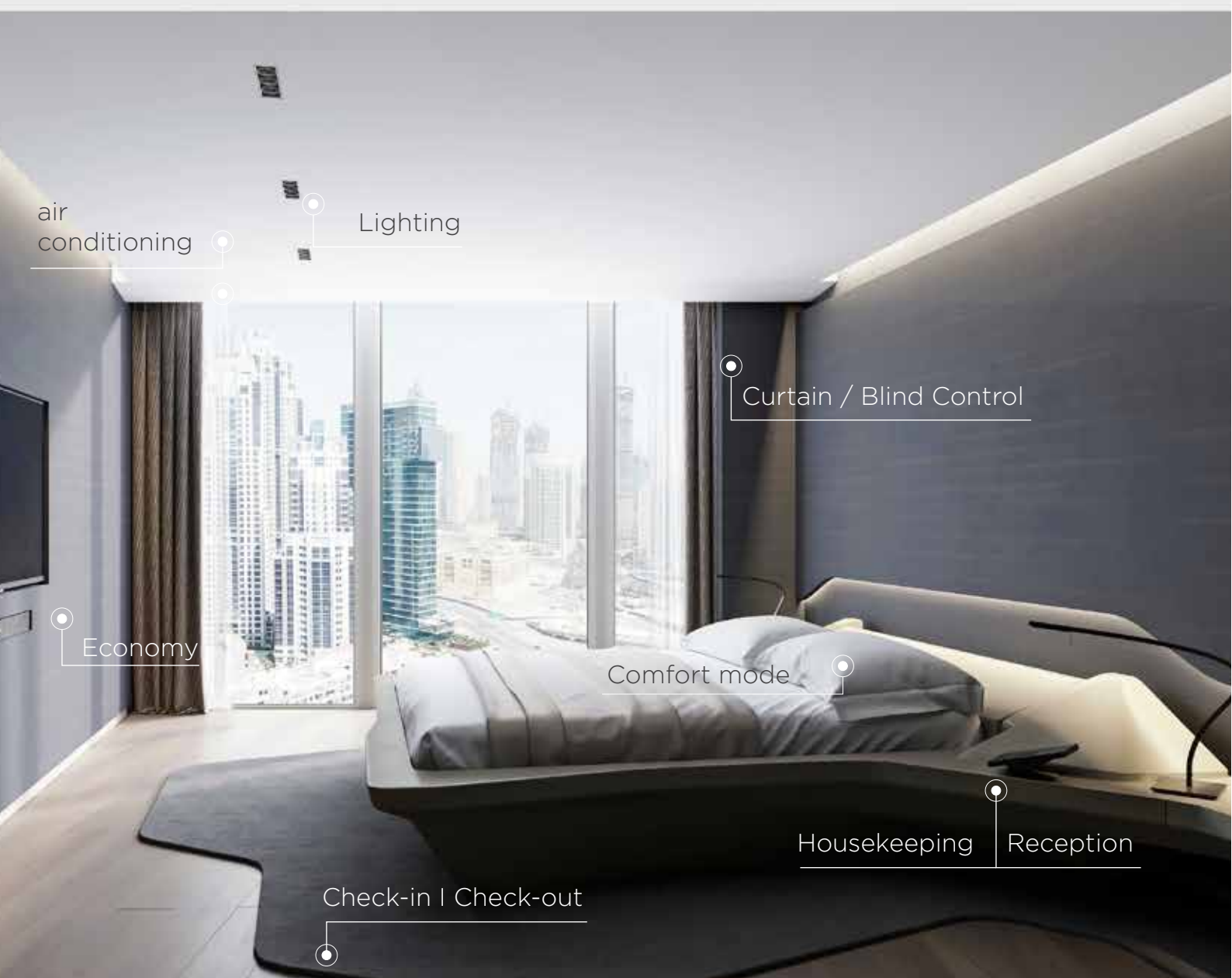
Smart Solution



KNX, direct to TCP network,
Modbus, GRMS, DND/MUR Service
logics, GRMS server application,
scenarios, room modes, Access
control system integration, many
options for digital outputs, mobile
access to the room, integrations
Fidelio, Salto, Assa Abloy, etc.

New Hotels of the Future INTERRA Meets iConnect Technology

You can allow many activities such as SPA, Taxi, cleaning, sports, concerts, meals etc. to reach the room guest. You can contribute to a unique experience and to the image of the facility by providing this in an interactive way.



air conditioning

Lighting

Curtain / Blind Control

Economy

Comfort mode

Housekeeping

Reception

Check-in | Check-out

Maximum Energy Saving with iConnect Low Cost Solutions

To save energy, you need to control energy consumption by closely monitoring it at all times.

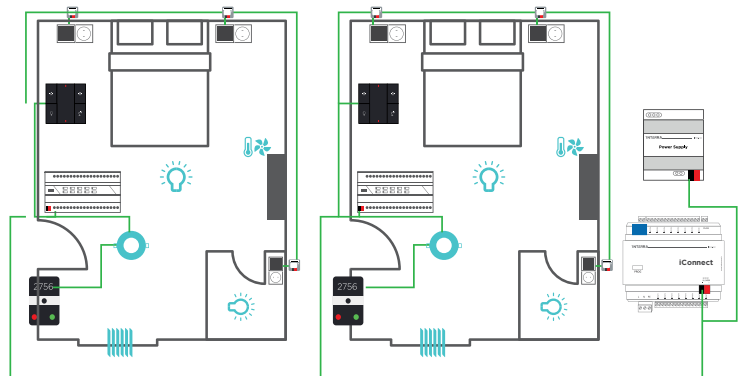
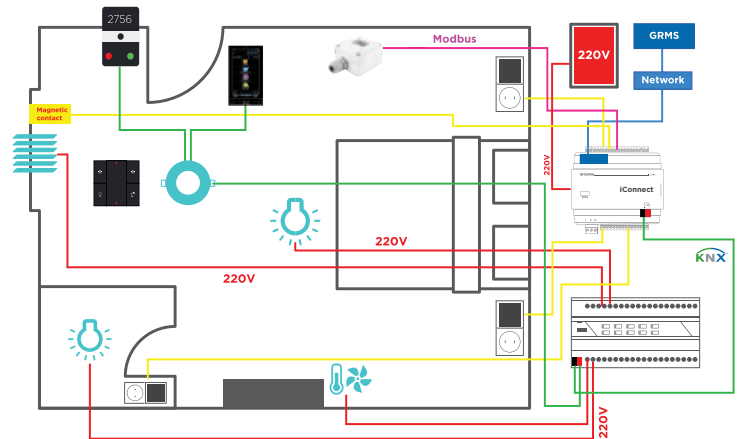
And thanks to the combined data of the booking management system and building management system, you'll have access to all the data you need to monitor, control and save energy in your hotel.



iConnect

Scenarios that can be performed with limited flexibility have achieved high flexibility with iConnect. It can provide automation by producing its own power without the need for an external supply.

It is independent of operating system platforms and 100% programmable via browser. It was able to communicate with multiple protocols needed in the building automation sector. It provides a complete solution for hotel projects alone.



Innovative Aspects of iConnect

- First professional automation project using an open source Node-RED web-based visual programming interface by connecting TCP / IP connection
- Multi-protocol support with RS485 connection
- Miniature and embedded KNX power supply
- Creating a wide range of scenarios and logical relationships
- Google Assistant, integration with web-based automation system with Amazon Alexa
- Embedded Ethernet switch provides superiority in cost-critical projects

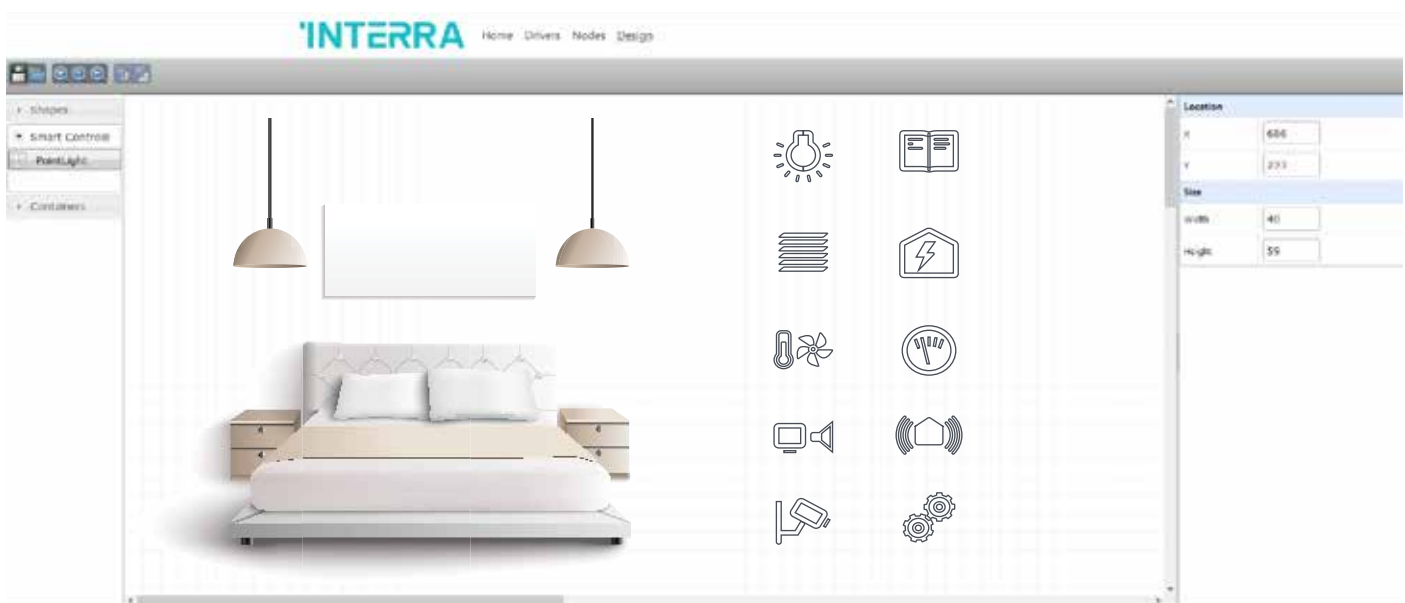
'INTERRA GRMS

GUEST ROOM MANAGEMENT SYSTEM



The main objective of using a GRMS - Guest Room Management System is to consistently satisfy guests' needs and expectations in their rooms.

The Guest Room Management System (GRMS) provides an innovative and efficient way to control the lighting, heating/cooling, curtains, TV, Music System, Radio and hotel guest services through intuitive buttons or touch screen/panel interfaces.



- Enables the hotel to efficiently manage guest room energy consumption and drive their vision of the optimal in-room experience generating greater guest satisfaction.
- Enhance customer comfort and provide easy management for hotel operators with automated solutions for guest rooms.
- The system manages different scenarios in each guest room, including welcome, living and sleeping settings.
- Lighting, temperature and curtains can be controlled to suit the activity of the occupant.
- Different scenes can be set in each guest room with the guest room management system.
- Settings can either be adjusted in the room by the guest or centrally via the hotel management system / Hotel Software / PMS.
- The guests will appreciate the ability to control the lighting, the curtains, the temperature and the fan control unit easily through such friendly system.
- The GRMS can be interfaced to the hotel software or Hotel PMS, Thus providing to automatically set the preferred temp., lighting, ambience settings as soon as guest check-in is shown.
- GRMS can be integrated with the Building Management System (BMS) and the Property Management System (PMS) in order to enable global management of the building and the hotel's operations.
- The main advantage of using a Guest Room Management System (GRMS) is to improve guest satisfaction & loyalty, Increase room revenue and save significant energy from 20% to 50%.

Room Control



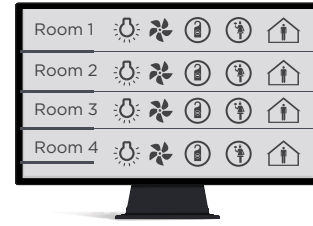
Settings can either be adjusted in the room by the guest or centrally via the hotel management system / Hotel Software / PMS.

Concierge - Services



Facilitate maid service requests, Laundry Request, Do Not Disturb (DND) etc.

Room Layout



The GRMS can be interfaced to the hotel software or Hotel PMS, Thus providing to automatically set the preferred temp., lighting, ambience settings as soon as guest check-in is shown.

Global integrations

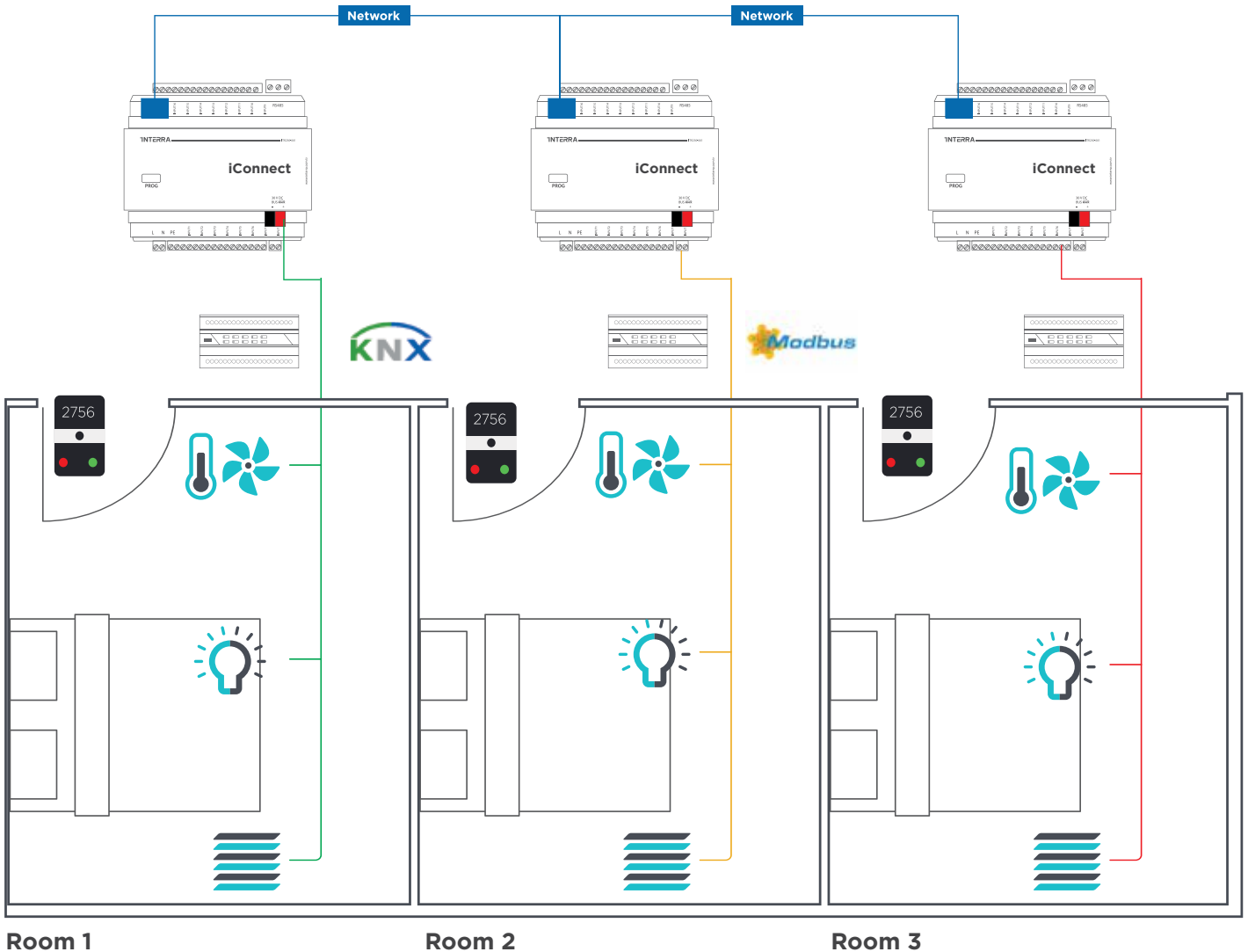


Thanks to Interra iConnect, integration with global hotel management software can be achieved.

Energy efficiency



Monitor and control energy consumption, Identify and proactively address maintenance needs



ITR208-0005 & ITR212-0005 ETHERNET I/O MODULE



Description

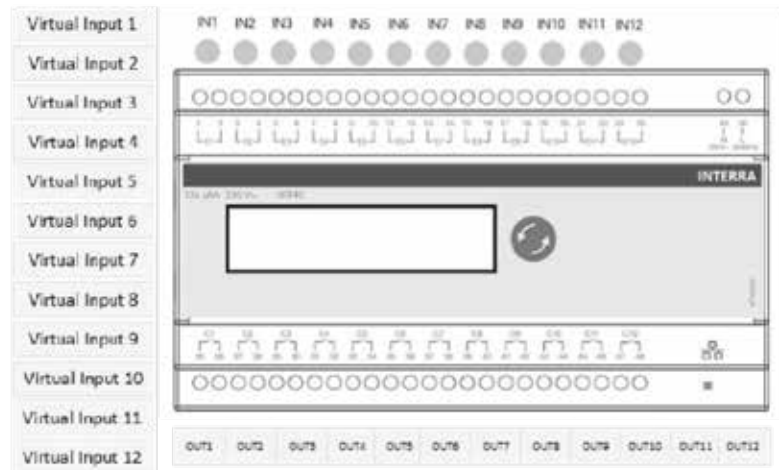
The ethernet I/O module is a versatile device which allows a variety of configurations. The ethernet module is intended to cover several automation requirements in a smart building for safe and efficient operations. The ethernet I/O module has been developed for providing the desired controls in the residence and hotel sectors. The usage of these devices guarantees the efficient management and provision of rooms. The device takes its energy from the 100-250 VAC mains line and does not need an external power supply. The device can communicate with the Interra touch panels and the Interra HomeServer via ethernet connection. In addition, the desired configurations for the inputs and outputs of the device can be made from the corresponding menus via the EIO Configuration software.

User Interface Features



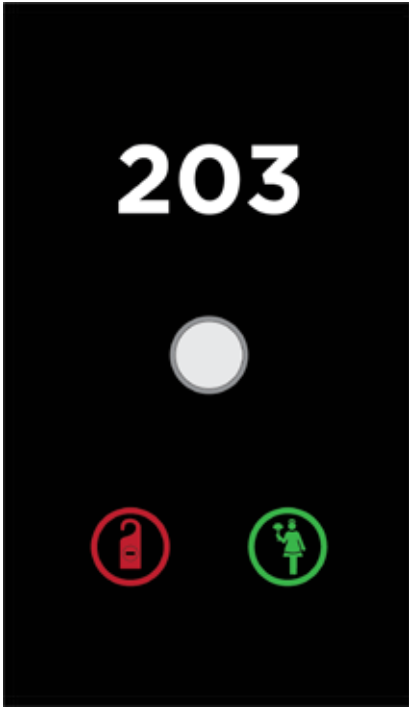
Device	ITR208-0005, ITR212-0005
Power Supply	100-250 VAC @50Hz
Power Consumption	0.9 W
Number of Binary Outputs	ITR208-0005 -> 8 channels ITR212-0005 -> 12 channels
Number of Binary Inputs	ITR208-0005 -> 8 channels ITR212-0005 -> 12 channels
Virtual Inputs	ITR208-0005 -> 8 channels ITR212-0005 -> 12 channels
Contact Capacity	16 A (Inrush current 100A)
Type of Protection	IP20
Temperature Range	Operation (-5°C...45°C) Storage (-20°C...70°C)
Maximum Air Humidity	< 90 RH
Flammability	Non-flammable Product
Colour	Light Grey
Dimensions	40x10x40 (WxLxH)
Mounting	DIN Rail
Configuration	Configuration with ETS
Weight	390 gr

- After the EIO Configuration software is opened, the device can be connected to the device by entering the IP address.
- It is possible to detect the possible devices by scanning at certain IP intervals.
- By entering the “Output Config” tab, related functions can be configured for each output.
- Settings made after the device configuration have been made can be saved. In addition, previously saved configurations can be loaded into the device.
- Configurations can also be copied between existing devices in the network.
- Naming can be done for each input and output, hence the configuration becomes clearer.
- By entering the “Manual Panel” tab, data about inputs, outputs and virtual inputs can be monitored.



Main Functional Characteristics

- ON/OFF control can be made with every output of the ethernet I/O module.
- Toggle control can be made with every output of the ethernet I/O module.
- Each output of the Ethernet I / O module can be controlled with time dependent control.
- Shutter/blind 24V configuration can be with 4 outputs of the ethernet I/O module.
- Shutter/blind 230VAC configuration can be with 2 outputs of the ethernet I/O module.
- Up to 10 different scenarios can be created by performing the desired configurations.
- Logic relationships can be established between inputs, outputs and virtual inputs to perform different configurations.
- Last situation memory against power failure.



Product

Order Code

Interra Conventional DND (Mini Model)	ITR630-002
Interra KNX DND (Mini Model)	ITR630-003
Interra Conventional DND (Glass)	ITR630-004
Interra KNX DND (Glass)	ITR630-005
KNX and Conventional DND Flush Mounting Box	ITR165-904





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Intercom / Outdoor / Android

Product	Order Code
Android Outdoor Station Residential 4.3” LCD display 1MP camera IP55	ITR651-001
Android Outdoor Station Residential 4.3” TFT SCD 1MP CMOS Camera IP55	ITR650-001



Intercom / Outdoor / Linux

Product	Order Code
Linux Outdoor Station Analog system one button 1/4” colour CMOS Camera	ITR641-001
Linux Outdoor Station for villa 1MP camera IP40	ITR640-001



Intercom / Indoor / Android

Product	Order Code
Android Indoor Monitor 7” TFT LCD Integrated Camera 0.3 MP CMOS	ITR661-001



Intercom / Indoor / Linux

Product	Order Code
Linux Indoor Monitor 7” TFT LCD Integrated Camera 0.3 MP CMOS	ITR660-001
Linux indoor station	ITR662-001

Intercom Switch

Product	Order Code
12V Poe 8 port switch	ITR220-0008

ITR640-001 - Outdoor Intercom Unit with Linux OS

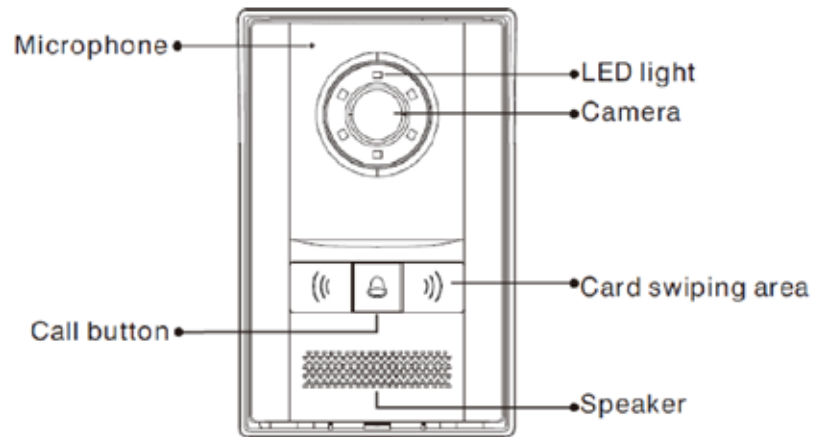


Device	ITR640-001
Power Supply	12V, PoE
Power Consumption	1.5W (Standby Power), 3 W (Rated Power)
Communication	TCP/IP, SIP, VOIP, RTSP
Operating System	Linux
CPU	1 GHz
Memory	64 MB SD Ram 128 MB Flash
Button	One mechanical button
Reader	10,000 IC/ID Cards
Door Relay Control Method	DTMF, HTTP, IC/ID Card
Video Codec	H.264
Audio Codec	G.711
Camera	1 MP CMOS
Night Vision	G.711
Type of Protection	IP 4
Temperature Range	Operation (-5°C...55°C) Storage (-10°C...70°C)
Maximum Air Humidity	< 90 RH
Material	Platic
Colour	Light Grey , Black
Flammability	Non-flammable product
Dimensions	111x170.5x38.6 mm (Wx-HxD)
Configuration	via Webpage

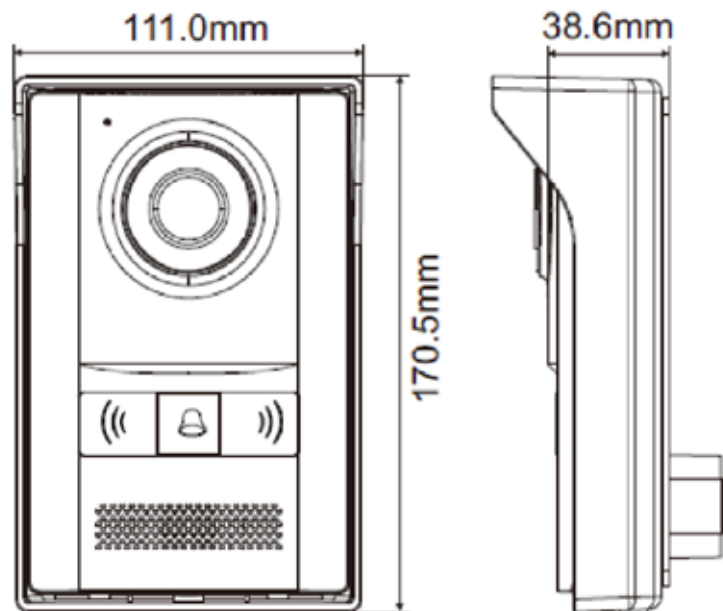
Description

Interra ITR640-001 door front SIP intercom unit can be used to provide intelligent access control in places such as villa, residence, office etc. With the card reader feature, you can provide access control and a high level of security in your building. Thanks to the high image quality, it is easier to recognize the guests in speeches made in dark environments with the night vision feature.

General Features



Dimensions



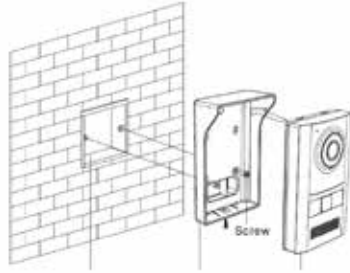
Functions and Characteristics

ITR640-001 is an Outdoor Panel Unit with that mainly used for make interacting between the related indoor intercom unit. ITR640-001 product features are described below :

- Call indoor monitor by one button
- Support unlocking by IC/ID access control card or DTMF.
- IC/ID card information can be registered on outdoor panel. Registration information of max. 10,000 IC/ID cards can be stored
- Support unlocking by Exit button and door magnetic detection
- Support LED light for night vision
- Support POE power supply (optional)

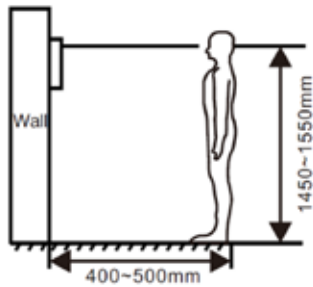
Installation

Please, perform the installation as indicated in the picture below.



Connection Diagram & Features

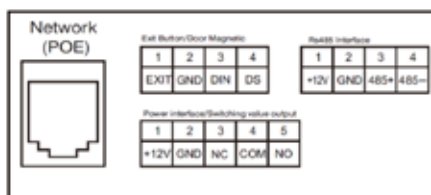
The following figure, shows a proper location of the installation :



During the installation, the camera should be 1450-1550mm above the ground. The camera tether for photographing human face should be the top priority.

System Diagram:

The following figures shows the connectors of the ITR640-001.



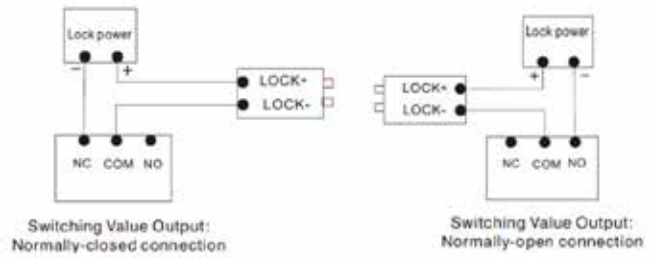
Power / Unlock Signal Output:

Power input interface connects with 12V DC power adapter. Wiring diagram is as follows:



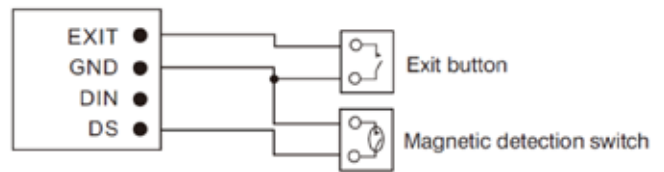
Switching Value Output:

It provides contact signal of switching value and needs, independent power supply for the lock. The electric lock can be connected in two ways including normally-open connection and normally-closed connection. Wiring diagram is as below:



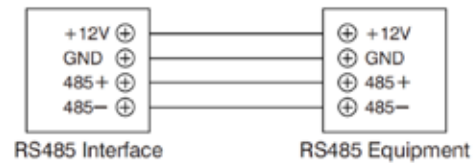
Exit Button/Door Magnetic Switch:

Connect with Exit button and door magnetic switch; DIN is reserved terminal, please don't connect it.



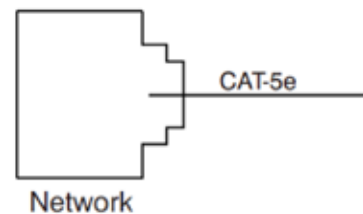
RS-485:

Connect with RS-485 device; RS-485 interface can output 12V / 100mA power supply. If RS-485 equipment to be connected does not require the power supply, no need to connect +12 V.



Network:

Connect to management center, indoor monitor or other network device through network switch.



Troubleshooting

Some common failures and troubleshooting methods are listed for your reference. In case of failure which cannot be repaired, do not disassemble or repair the product by yourself. Please contact the after-sales technical service department.

When setting villa outdoor panel, please make sure building No. and unit No. of outdoor panel are the same as the ones of indoor monitor.

Please check whether the network is connected.

Please check if there are any security setting for the network.

DS200203157AEN © 2020
INTERRA ITR641-001 - Outdoor
Intercom Unit with Linux OS

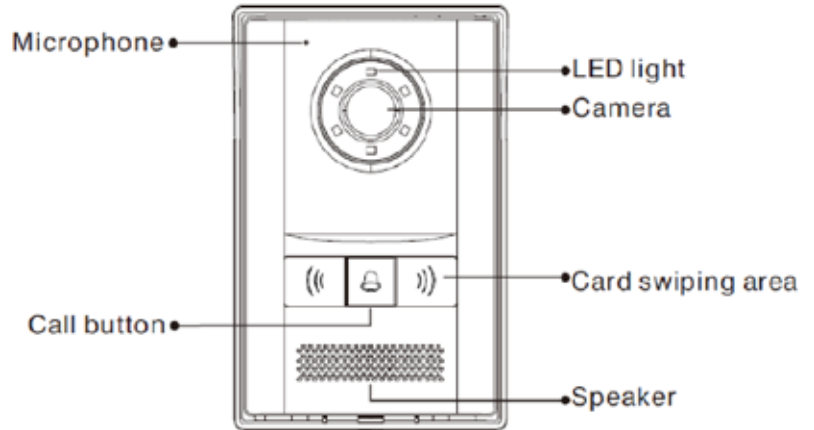


Device	ITR641-001
Power Supply	12V, PoE
Power Consumption	1.5W (Standby Power), 3 W (Rated Power)
Communication	TCP/IP, SIP, VOIP, RTSP
Operating System	Linux
CPU	1 GHz
Camera	1 MP CMOS
Memory	64 MB SD Ram, 128 MB Flash
Button	One Touch / Mechanical button
Reader	10,000 IC/ID Cards IC/ID Cards
Door Relay Control Method	DTMF, HTTP, IC/ID Card
Video Codec	H.264
Audio Codec	G.711
Camera	1/4" MP CMOS
Night Vision	LED Night Vision
Type of Protection	IP 55
Temperature Range	Operation (-5°C...55°C) Storage (-10°C...70°C)
Maximum Air Humidity	< 90 RH
Material	Aluminum Alloy / Tempered Glass Panel
Colour	Gold, Black
Flammability	Non-flammable product
Dimensions	Product : 99.5x160x47 mm (WxHxD) Mount Box : 94x151x45 mm (WxHxD)
Configuration	via Webpage

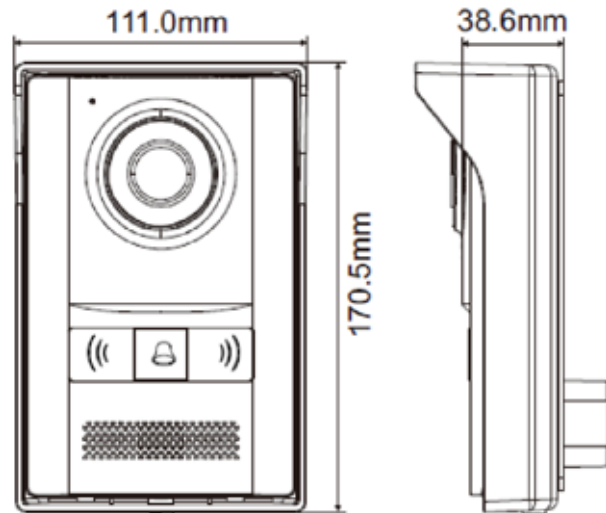
Description

Interra ITR641-001 door front SIP intercom unit can be used to provide intelligent access control in places such as villa, residence, office etc. With the card reader feature, you can provide access control and a high level of security in your building. Thanks to the high image quality, it is easier to recognize the guests in speeches made in dark environments with the night vision feature. Black and gold housing is quite compatible to align with the design of the mounting location such as garden wall, door wall etc.

General Features



Dimensions



Functions

ITR641-001 is an Outdoor Panel Unit with that mainly used for make interacting between the related indoor intercom unit. ITR641-001 product features are described below :

- Call indoor monitor by one button.
- Support unlocking by IC/ID access control card or DTMF.
- IC/ID card information can be registered on outdoor panel. Registration information of max. 10,000 IC/ID cards can be stored.
- Support unlocking by Exit button and door magnetic detection.
- Support LED light for night vision.
- Support POE power supply (optional).

ITR650-001 - Residence Type Outdoor Stainless Intercom Unit

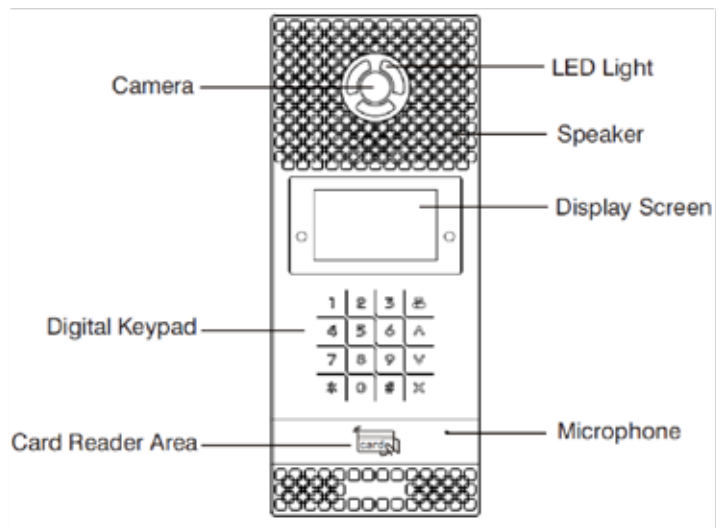


Device	ITR650-001 1
Power Supply	12V, PoE
Power Consumption	3W (Standby Power) , 10 W (Rated Power)
Communication	TCP/IP, SIP, VOIP, RTSP
Operating System	Android 4.4.2
CPU	Quad Core 1.3 GHz
Keypad	Piezoelectric Keypad
Memory	64 MB SD Ram, 128 MB Flash
Reader	100,000 IC/ID Cards
Facial Recognition	10,000 different face recognition
Door Relay Control Method	DTMF, HTTP, Key Code, IC/ID Card, Face recognition
Video Codec	H.264
Audio Codec	G.711, G.729
Camera	1 MP CMOS
Night Vision	LED Night Vision
Type of Protection	IP 65
Temperature Range	Operation (-5°C...55°C) Storage (-10°C...70°C)
Maximum Air Humidity	< 90 RH
Material	Aluminum Alloy
Colour	Light Grey and Black
Flammability	Non-flammable product
Dimensions	Product : 158x380x54.5 mm (WxHxD) Mount Box: 142x358x59.5 mm (WxHxD)
Configuration	via Webpage

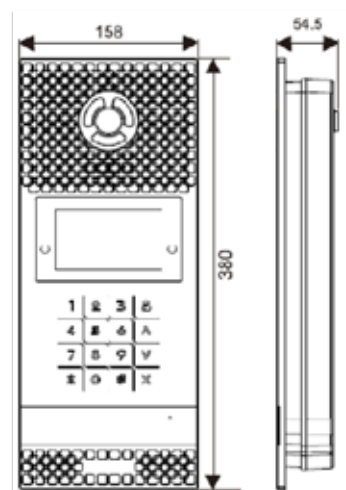
Description

ITR650-001 is an Outdoor Intercom Unit with Android OS that mainly used for make interacting between the related indoor intercom unit such as indoor monitor. It allows you to easily monitor an entrance door or gate and gives you the confidence that your home have more security. Users can communicate with visitors via audio and video calls, and unlock the door if they need. Besides, users can use IC/ID cards to unlock the door, too.

General Features



Dimensions



Functions

ITR650-001 is an Outdoor Panel Unit with that mainly used for make interacting between the related indoor intercom unit. ITR650-001 product features are described below :

- Video intercom with indoor monitor and management centre.
- Door opening can be done with password, IC / ID card and face recognition.
- It can register IC/ID card information on the outdoor panel and store up to 100,000 IC/ID card (ID card is optional).
- Support Exit button unlocking and door magnetic detection.
- Face recognition with infrared supported night vision camera.

ITR651-001 - Residence Type Outdoor Glass Intercom Unit

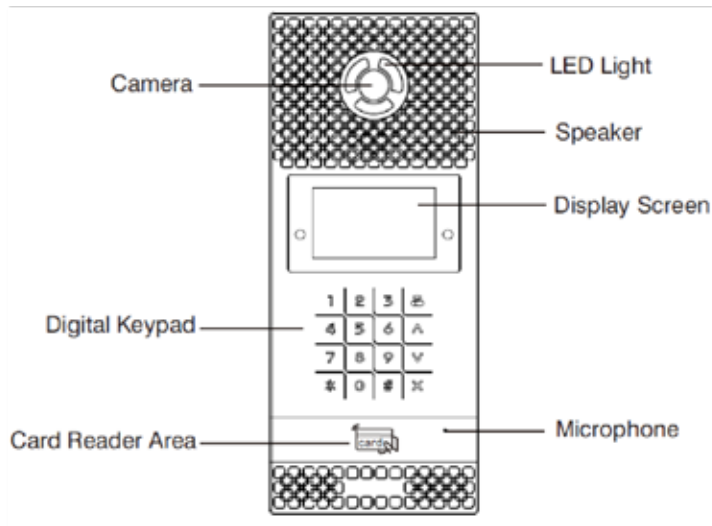


Device	ITR651-001
Power Supply	12V, PoE
Power Consumption	3W (Standby Power) , 10 W (Rated Power)
Communication	TCP/IP, SIP, VOIP, RTSP
Operating System	Android 4.4.2
CPU	Quad Core 1.3 GHz
Keypad	Touch Keypad
Memory	512 MB SD Ram, 8 GB Flash, 32 GB Micro SD Card
Reader	100,000 IC/ID Cards
Facial Recognition	10,000 different face recognition
Door Relay Control Method	DTMF, HTTP, Key Code, IC/ID Card, Face recognition
Video Codec	H.264
Audio Codec	G.711, G.729
Camera	1 MP CMOS
Night Vision	LED Night Vision
Type of Protection	IP 55
Temperature Range	Operation (-5°C...55°C) Storage (-10°C...70°C)
Maximum Air Humidity	< 90 RH
Material	Aluminum Alloy
Colour	Light Grey and Black
Flammability	Non-flammable product
Dimensions	Product : 158x380x54.5 mm (WxHxD) Mount Box: 142x358x59.5 mm (WxHxD)
Configuration	via Webpage

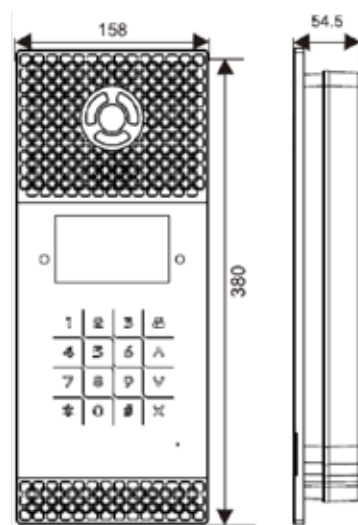
Description

ITR651-001 is an Outdoor Intercom Unit with Android OS that mainly used for make interacting between the related indoor intercom unit such as indoor monitor. It allows you to easily monitor an entrance door or gate and gives you the confidence that your home have more security. Users can communicate with visitors via audio and video calls, and unlock the door if they need. Besides, users can use IC/ID cards to unlock the door, too. Besides, users can use IC/ID cards to unlock the door, too.

General Features



Dimensions

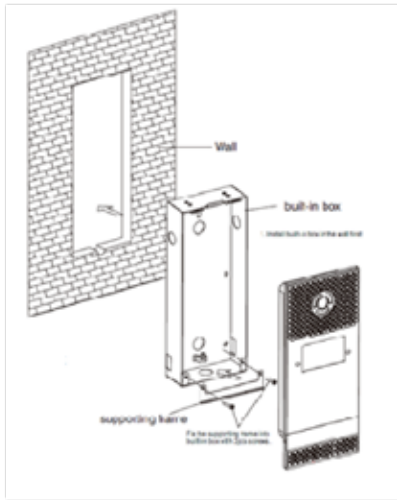


Functions

ITR651-001 is an Outdoor Panel Unit with that mainly used for make interacting between the related indoor intercom unit. ITR651-001 product features are described below :

- Video intercom with indoor monitor and management centre.
- Door opening can be done with password, IC / ID card and face recognition.
- It can register IC/ID card information on the outdoor panel and store up to 100,000 IC/ID card (ID card is optional).
- Support Exit button unlocking and door magnetic detection.
- Face recognition with infrared supported night vision camera.

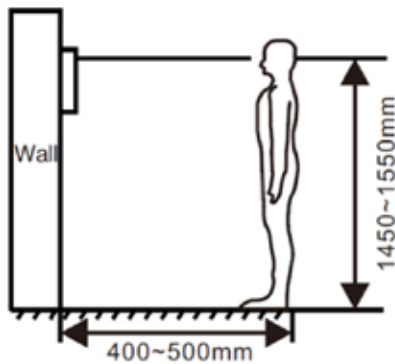
Installation



When mounting the built-in box, do not fix the frame into the wall. The supporting frame should be in parallel with the wall.

Connection Diagram & Features

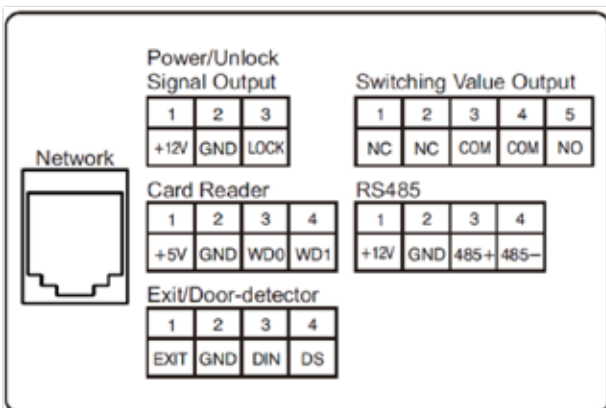
The following figure, shows a proper location of the installation :



During the installation, the camera should be 1450-1550mm above the ground. The camera tether for photographing human face should be the top priority.

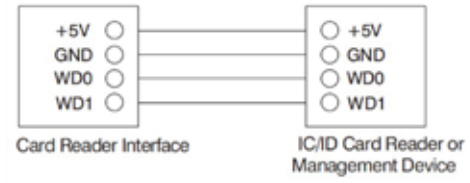
System Diagram:

The following figures shows the connectors of the ITR651-001.



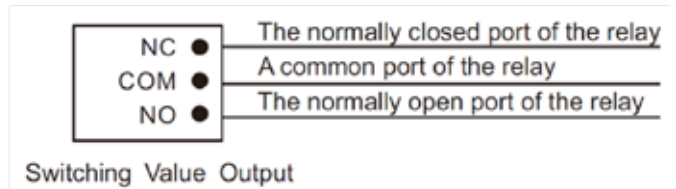
Card Reader Interface:

The interface can be connected to one IC/ID card reader or be used for reading the information of built-in card reader. It can output the power 5V/100mA. When the card reader does not the power from the interface, wire connection of +5V is not required:



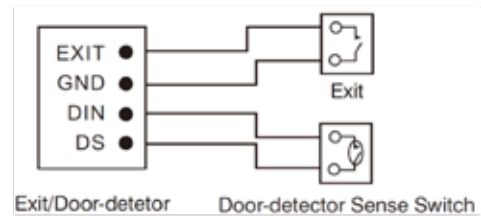
Switching Value Output:

Connect to the lock module (independent power supply is necessary for the lock).



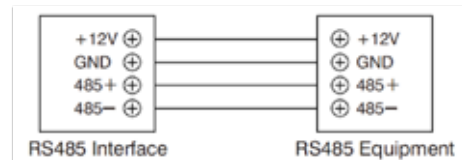
Exit Button/Door Magnetic Switch:

Connect with Exit button and door magnetic switch; DIN is reserved terminal, please don't connect it.



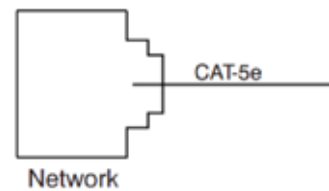
RS-485:

Connect with RS-485 device; RS-485 interface can output 12V / 100mA power supply. If RS-485 equipment to be connected does not require the power supply, no need to connect +12 V.



Network:

Connect to management center, indoor monitor or other network device through network switch.



Troubleshooting

Some common failures and troubleshooting methods are listed for your reference. In case of failure which cannot be repaired, do not disassemble or repair the product by yourself. Please contact the after-sales technical service department.

When setting outdoor panel, please make sure building No. and unit No. of outdoor panel are the same as the ones of indoor monitor.

Please check whether the network is connected.

Please check if there are any security setting for the network.

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INTERRA ITR661-001 - Indoor
Intercom Panel with Android OS



Device	ITR661-001
Power Supply	12V, PoE
Power Consumption	3W (Standby Power) 10W (Rated Power)
Display Screen	7" TFT LCD Screen , 1024x600
Communication	TCP/IP, SIP, VOIP, RTSP
Communication (optional)	Wi-Fi / Bluetooth Communication
CPU	1.5 GHz
Interface	RS485, siren x1 , alarm zone x8
Memory	1 GB SD Ram 4 GB Flash 32 GB Micro SD Card
Buttons	5 Buttons : Answer, Reject, Call, Camera Monitor, Unlock
Operating System	Android 4.4.2
Type of Protection	IP 30
Temperature Range	Operation (-5°C...55°C) Storage (-10°C...70°C)
Maximum Air Humidity	< 90 RH
Material	Acrylic Panel + ABS Casing
Colour	Black
Flammability	Non-flammable product
Dimensions	220x166.5x21.5 mm (WxHxD)
Configuration	via Webpage of Indoor Monitor

Description

ITR661-001 is a Indoor Panel Unit with Android OS panel that mainly used for make interacting between the related outdoor intercom unit. It can be connected to Interra outdoor intercom devices for audio, video communication also unlocking and monitoring features. With these functions residents can enjoy crystal clear audio communication, can check the call records and unlock the door remotely. Besides, the ITR661-001 indoor panel supports 8 different alarm zones with three different scenario setup. Black housing is quite proper to align with the interior design of the home.

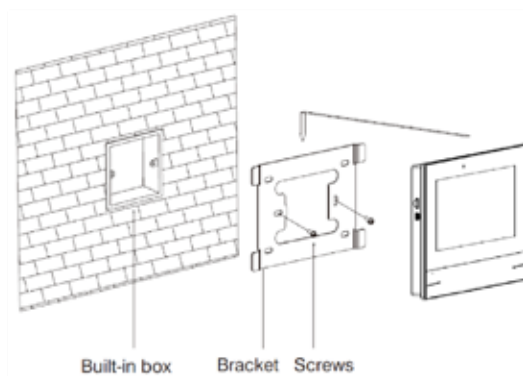
In addition, the ITR661-001 delivers the ultimate touch screen experience in a space saving design featuring an amazing 7" with capacitive touch feature. It complies with SIP, VOIP standard for easy integration in every SIP, VOIP capable devices.

Functions

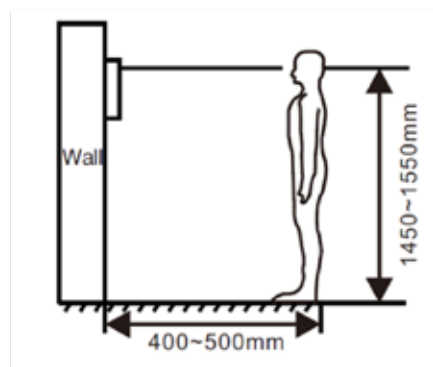
ITR661-001 is a Indoor Panel Unit with Android OS panel that mainly used for make interacting between the related outdoor intercom unit. ITR661-001 product features are described below :

- VOIP: Support video call, camera monitor, unlock, VOIP communication and check the call records.
- Security: It supports 8 different regions with 3 different scenarios.
- Operating system: Android 4.4.2
- Automation Controls : Automation system can be controlled with Icontrol.
- Monitoring the outdoor intercom unit camera and user interface customization.
- Monitoring up to 10 cameras via RTSP with Icontrol.
- Support Android systems applications.

Installation



The following figure, shows a proper location of the installation :



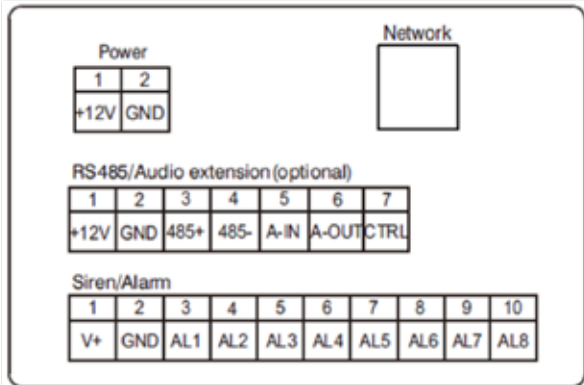
During the installation, the camera should be 1450-1550mm above the ground. The camera tether for photographing human face should be the top priority.

Connection Diagram & Features

The following subtitles describe the related connection parts of the ITR661-001 indoor touch panel : System Diagram, Power, Siren/Alarm, RS-485/Audio Extension, Network.

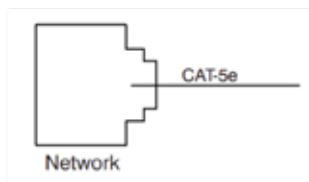
System Diagram:

The following figures shows the connectors of the ITR661-001.



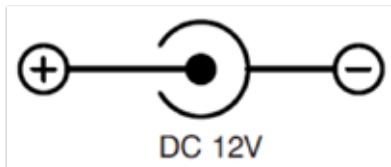
Network:

Connect with outdoor panel, indoor monitor or other network equipment by network switch. When indoor monitor has PoE function, the interface can supply power by connecting with PoE network switch. If network interface has 12V power supply, pin No. 4 and 5 of RJ45 interface should connect with +12V of power interface, and pin No. 7 and 8 should connect with GND of power interface.



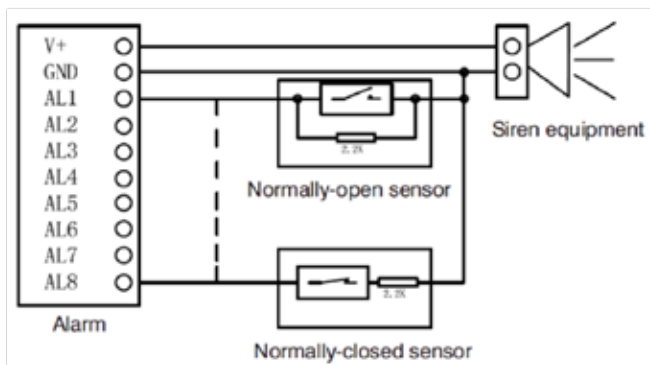
Power:

Power input interface connects with 12V power adapter. The following figure shows the connection diagram.



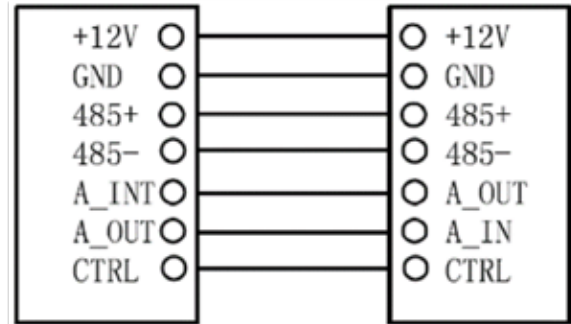
Siren/Alarm:

When alarm sensor is triggered, the output power is 12V / 100mA. Each interface of alarm zone can be connected with normally-open or normally-closed switch.



RS-485/Audio Extension:

Connect with outdoor panel, management center, indoor monitor or other network equipment by network switch. Supply power by PoE network switch if it is with PoE function.



Troubleshooting

Some common failures and troubleshooting methods are listed for your reference. In case of failure which cannot be repaired, do not disassemble or repair the product by yourself. Please contact the after-sales technical service department.

The indoor monitor cannot start up or power off automatically.

- Check whether it has power failure, and power it on again. The indoor monitor display screen is too dim.
- Check whether the brightness and contrast settings of screen are correct.

No sounding during the communication

- Check whether the indoor monitor is set as mute mode, or the volume is set to the lowest value. The indoor monitor cannot monitor the outdoor panel
- Other user is using the system, so you can use it once he finished the operation.

Multimedia files cannot be played normally.

- Check whether the system supports the file format. Please refer to multimedia setting for details.

No response when clicking indoor monitor display screen

- Press "Unlock" button for 5s, or slowly slide horizontally or vertically on the LCD to make touchscreen calibration. It need to be calibrated twice.

Touchscreen responses slowly or cannot make calibration

- Ensure the finger is dry and clean when clicking touch screen
- Restart the device to clear any temporary software error.

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INTERRA ITR661-001 - Indoor
Intercom Panel with Android OS



Device	ITR660-001
Power Supply	12V, PoE
Rated Power Consumption	9W
Standby Power Consumption	1.5W
Display Screen	7" TFT LCD Screen
Touch Screen	Capacitive Touch Screen
CPU	Arm cortex-A7 1.2GHZ
Communication	TCP/IP, SIP, VOIP, RTSP
Memory	64 MB SD Ram, 128 MB Flash
Buttons	5 Buttons : Answer, Reject, Call, Camera Monitor, Unlock
Operating System	Embedded Linux
Type of Protection	IP 30
Temperature Range	Operation (-5°C...55°C) Storage (-10°C...70°C)
Maximum Air Humidity	< 90 RH
Material	Acrylic Panel + ABS Casing
Colour	Black
Flammability	Non-flammable product
Dimensions	220x166.5x21.5 mm (WxHxD)
Configuration	via Webpage

Description

ITR660-001 is a Indoor Panel Unit with Linux OS panel that mainly used for make interacting between the related outdoor intercom unit. It can be connected to Interra outdoor intercom devices for audio, video communication also unlocking and monitoring features. With these functions residents can enjoy crystal clear audio communication, can check the call records and unlock the door remotely. Besides, the ITR660-001 indoor panel supports 8 different alarm zones with three different scenario setup. Black housing is quite proper to align with the interior design of the home.

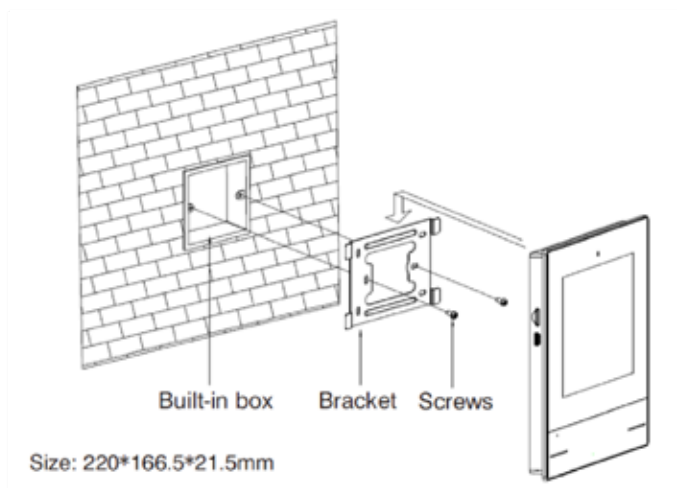
In addition, the ITR660-001 delivers the ultimate touch screen experience in a space saving design featuring an amazing 7" with capacitive touch feature. It complies with SIP, VOIP standard for easy integration in every SIP, VOIP capable devices.

Functions

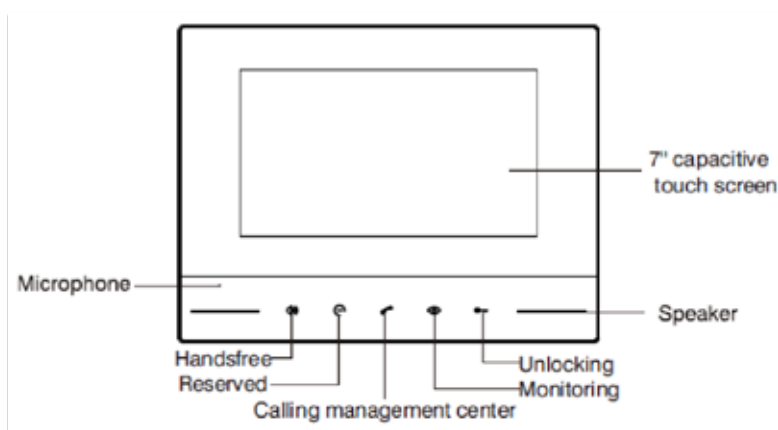
ITR660-001 is a Indoor Panel Unit with Linux OS panel that mainly used for make interacting between the related outdoor intercom unit. ITR660-001 product features are described below :

- VOIP: Support video call, camera monitor, unlock, VOIP communication and check the call records.
- Security: It supports 8 different regions with 3 different scenarios.
- Operating system is Linux.
- Viewing the outdoor intercom unit camera.
- 5 Touch Buttons: Answer, Reject, Call, Camera Monitor and Unlock.
- User interface customization.

Installation

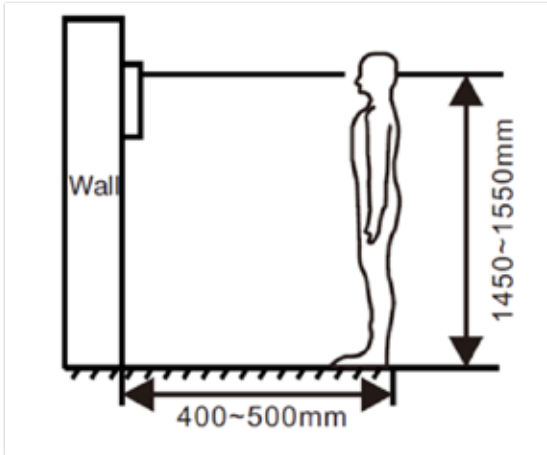


General Features



Connection Diagram & General Features

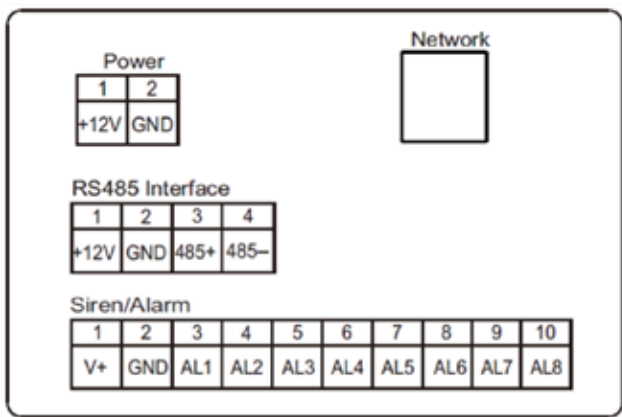
The following figure, shows a proper location of the installation :



During the installation, the camera should be 1450-1550mm above the ground. The camera tether for photographing human face should be the top priority.:

System Diagram:

The following figures shows the connectors of the ITR660-001.



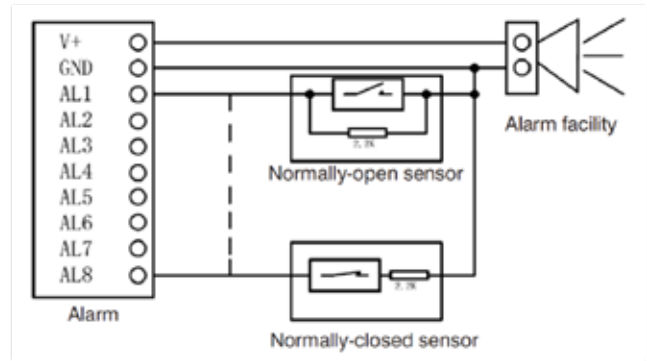
Power:

Power input interface connects with 12V power adapter. The following figure shows the connection diagram.



Siren/Alarm:

When alarm sensor is triggered, the output power is 12V / 100mA. Each interface of alarm zone can be connected with normally-open or normally-closed switch.



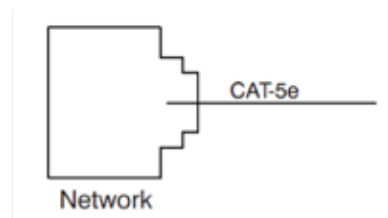
RS-485:

When alarm sensor is triggered, the output power is 12V / 100mA. Each interface of alarm zone can be connected with normally-open or normally-closed switch.



Network:

Connect with outdoor panel, indoor monitor or other network equipment by network switch. When indoor monitor has PoE function, the interface can supply power by connecting with PoE network switch. If network interface has 12V power supply, pin No. 4 and 5 of RJ45 interface should connect with +12 of power interface, and pin No. 7 and 8 should connect with GND of power interface.



Troubleshooting

Some common failures and troubleshooting methods are listed for your reference. In case of failure which cannot be repaired, do not disassemble or repair the product by yourself. Please contact the after-sales technical service department.

- The indoor monitor cannot start up or power off automatically.
 - Check whether it has power failure, and power it on again.
- The indoor monitor display screen is too dim.
 - Check whether the brightness and contrast settings of screen are correct.
- No sounding during the communication
 - Check whether the indoor monitor is set as mute mode, or the volume is set to lowest value.
- The indoor monitor cannot monitor the outdoor panel
 - Other user is using the system, so you can use it once he finished the operation.

ITR662-001 - Indoor Intercom Panel with Linux OS



Description

ITR662-001 is a Indoor Panel Unit with Linux OS panel that mainly used for make interacting between the related outdoor intercom unit. It can be connected to Interra outdoor intercom devices for audio, video communication also unlocking and monitoring features. With these functions residents can enjoy crystal clear audio communication, can check the call records and unlock the door remotely. Besides, the ITR662-001 indoor panel supports 8 different alarm zones with three different scenario setup. Black housing is quite proper to align with the interior design of the home.

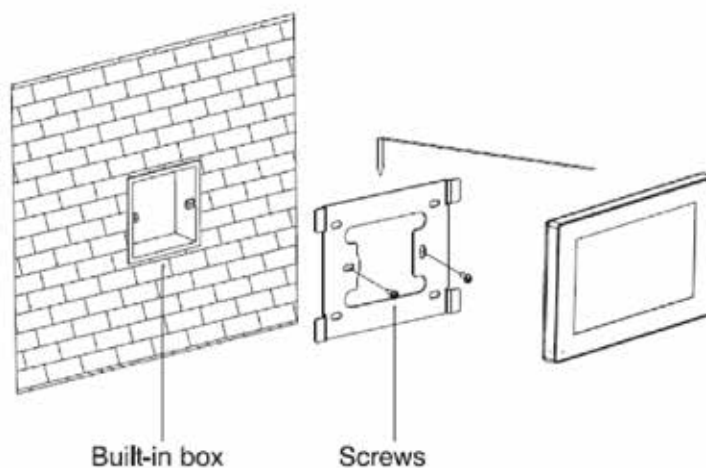
In addition, the ITR662-001 delivers the ultimate touch screen experience in a space saving design featuring an amazing 7" with capacitive touch feature. It complies with SIP, VOIP standard for easy integration in every SIP, VOIP capable devices.

Functions

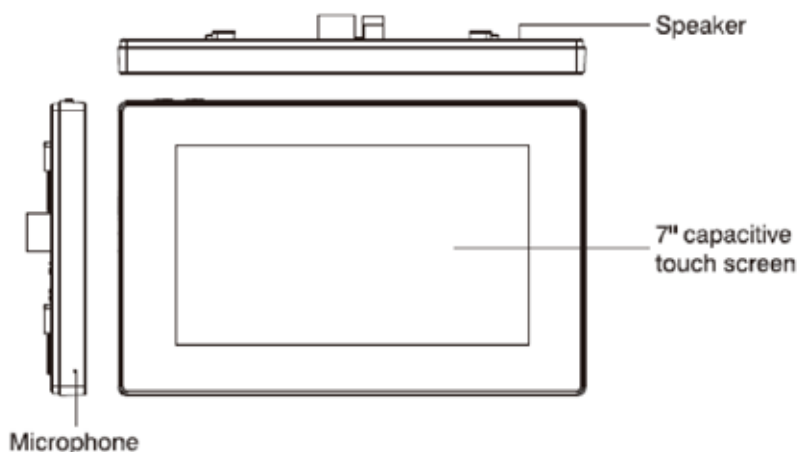
ITR662-001 is a Indoor Panel Unit with Linux OS panel that mainly used for make interacting between the related outdoor intercom unit. ITR662-001 product features are described below :

- VOIP: Support video call, camera monitor, unlock, VOIP communication and check the call records.
- Security: It supports 8 different regions with 3 different scenarios.
- Operating system is Linux.
- Picture record, do not disturb, remote management and message receiving functions.
- User interface customization.

Installation



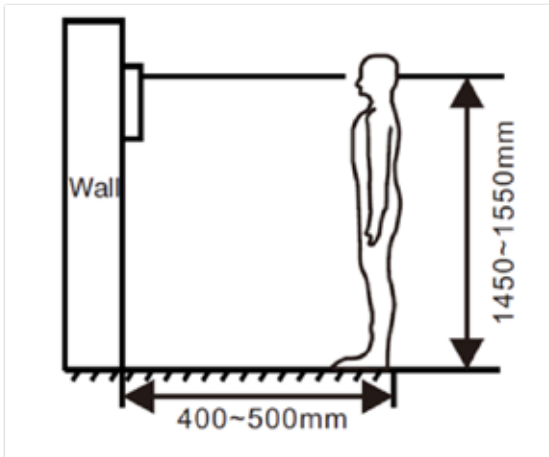
Installation



Device	ITR662-001
Power Supply	12V, PoE(12V)
Rated Power Consumption	9W
Standby Power Consumption	1.5W
Communication	TCP/IP, SIP, VOIP, RTSP
Touch Screen	Capacitive Touch Screen
Display Screen	7" TFT LCD Screen, 800x480
Intercom	Support video call, message receive, unlocking and checking of call records
Memory	64 MB SD Ram, 16 MB Flash
Buttons	5 Buttons : Answer, Reject, Call, Camera Monitor, Unlock
Operating System	Embedded Linux
Type of Protection	IP 30
Temperature Range	Operation (-5°C...55°C) Storage (-10°C...70°C)
Maximum Air Humidity	< 90 RH
Material	Acrylic Panel + ABS Casing
Colour	Black
Flammability	Non-flammable product
Dimensions	205x129.5x18mm (WxHxD))
Configuration	via Webpage
CPU	Arm cortex-A7 1 GHz

Connection Diagram & General Features

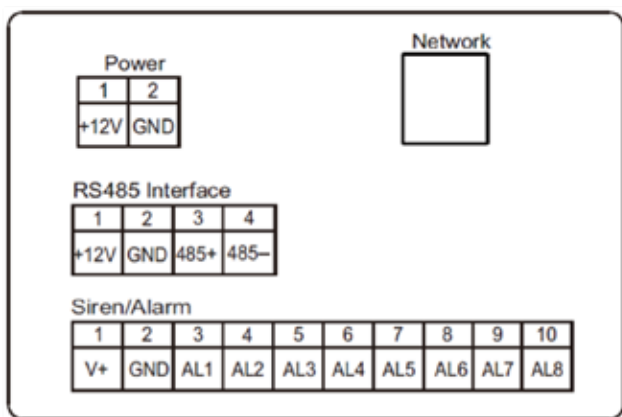
The following figure, shows a proper location of the installation :



During the installation, the camera should be 1450-1550mm above the ground. The camera tether for photographing human face should be the top priority.:

System Diagram:

The following figures shows the connectors of the ITR662-001.



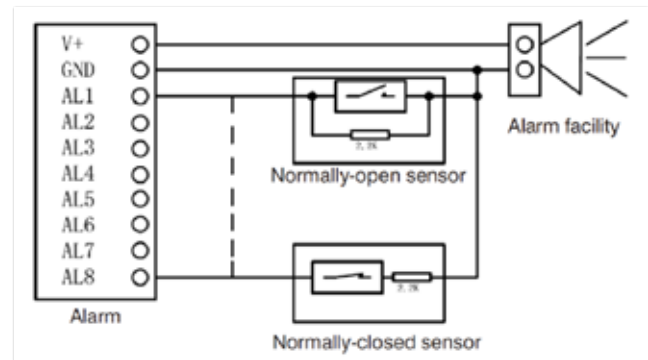
Power:

Power input interface connects with 12V power adapter. The following figure shows the connection diagram.



Siren/Alarm:

When alarm sensor is triggered, the output power is 12V / 100mA. Each interface of alarm zone can be connected with normally-open or normally-closed switch.



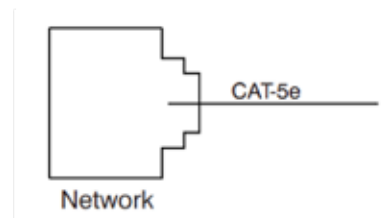
RS-485:

When alarm sensor is triggered, the output power is 12V / 100mA. Each interface of alarm zone can be connected with normally-open or normally-closed switch.



Network:

Connect with outdoor panel, indoor monitor or other network equipment by network switch. When indoor monitor has PoE function, the interface can supply power by connecting with PoE network switch. If network interface has 12V power supply, pin No. 4 and 5 of RJ45 interface should connect with +12 of power interface, and pin No. 7 and 8 should connect with GND of power interface.



Troubleshooting

Some common failures and troubleshooting methods are listed for your reference. In case of failure which cannot be repaired, do not disassemble or repair the product by yourself. Please contact the after-sales technical service department.

- The indoor monitor cannot start up or power off automatically.
 - Check whether it has power failure, and power it on again.
- The indoor monitor display screen is too dim.
 - Check whether the brightness and contrast settings of screen are correct.
- No sounding during the communication
 - Check whether the indoor monitor is set as mute mode, or the volume is set to lowest value.
- The indoor monitor cannot monitor the outdoor panel
 - Other user is using the system, so you can use it once he finished the operation.

ITR662-001 - Indoor Intercom Panel with Linux OS



Device	ITR675-001
Power Supply	12V DC / PoE Optional
Power Consumption	3W (Standby Power) 10W (Rated Power)
Display Screen	10.1" TFT LCD Screen , 1024x600
Communication	TCP/IP, SIP, VOIP, RTSP
CPU	Quad-Core 1.3 GHz
Operating System	Android
Memory	512 MB SD Ram 4 GB Flash Up to 32 GB Micro SD Card
Camera	CMOS
Audio Codec	G.711, G.729
Video Codec	H.264
Buttons	5 Buttons : Answer, Reject, Call, Camera Monitor, Unlock
Type of Protection	IP20
Temperature Range	Operation (0°C...45°C) Storage (-10°C...55°C)
Maximum Air Humidity	< 80 RH
Material	PC + ABS Casing
Colour	Black
Dimensions	303x195.5x35 mm (WxHxD)

Description

ITR675-001 is a Indoor Panel Unit with Android OS panel that mainly used for make interacting between the outdoor intercom units and indoor touch panels. It can be connected to Interra intercom devices for audio, video communication also unlocking and monitoring features. It facilitates the sending messages to apartment residents such as warning, utility, weather forecast etc. Besides, touch screen IP phone can also manage the access control for visitors to provide both security and convenience.

In addition, automatic message sending and answering can be set with ITR675-001. It complies with SIP, VOIP standard for easy integration in every SIP, VOIP capable devices.

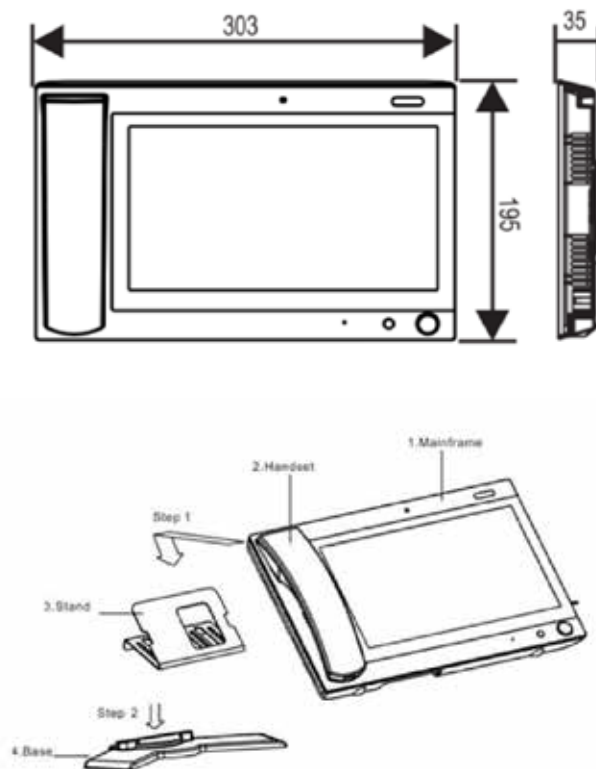
Functions

ITR675-001 is a Touch Screen IP phone with Android OS panel that mainly used at locations such as security, reception etc. The users can make interacting between the related outdoor intercom unit and indoor touch panels. ITR675-001 product features are described below :

- VOIP: Support video call, camera monitor, unlock, VOIP communication and check the call records.
- Communication: Two-way communication with indoor touch panels.
- Record : Alarm and intercom information can be recorded.
- Operating system: Android OS.
- Monitoring the outdoor intercom unit camera and user interface customization.
- Monitoring up to 8 cameras via RTSP.

Functions

The following figure, shows the dimensions of the touch screen IP phone. All dimensions are given in millimetres



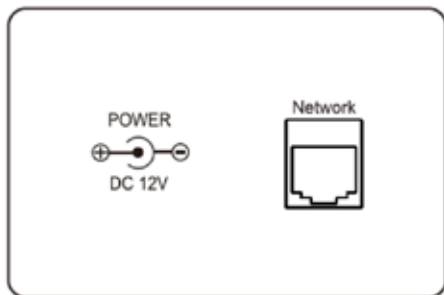
If the installation will be made to the wall, the camera should be 1450-1550mm above the ground. The camera tether for photographing human face should be the top priority.

Connection Diagram & Features

The following subtitles describe the related connection parts of the ITR675-001 touch screen IP phone : System Diagram, Power and Network.

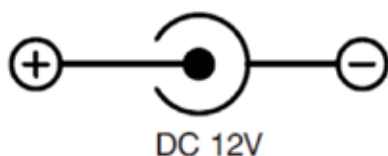
System Diagram:

The following figures shows the connectors of the ITR675-001.



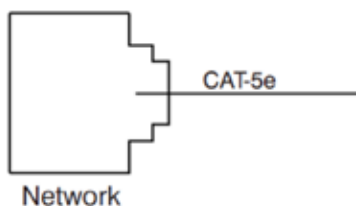
Power:

Power input interface connects with 12V power adapter. The following figure shows the connection diagram.



Network:

Connect with outdoor panel, indoor monitor or other network equipment by network switch. With POE function, POE switch can be connected to supply power to touch screen IP phone.



Safety Instructions

In order to protect you and others from harm or your device from damage, please read the following information before using the device.

Do not install the device in the following places:

- Do not place the device in the sunshine or near the heat source. This might cause discoloration or deformation of the device.
- Do not install the device in an unstable position to avoid the property losses or personal injury caused by the falling of device.
- Do not install the device in high-temperature and moist environment or the area close to magnetic field, such as the electric generator, transformer
- Do not place the device near the heating products such as electric heater or the fluid container.

Guard against electric shock, fire and explosion:

- Do not use damaged power cord, plug or loose outlet.
- Do not touch the power cord with wet hands or unplug the power cord by pulling.
- Do not bend or damage the power cord.
- Do not touch the device with wet hands.
- Do not make the power supply slip or cause the impact.
- Do not use the power supply without the manufacturer's approval.
- Do not have the liquids such as water go into the device.

Troubleshooting

Some common failures and troubleshooting methods are listed for your reference. In case of failure which cannot be repaired, do not disassemble or repair the product by yourself. Please contact the after-sales technical service department.

The machine cannot be turned on or automatically shut down.

- Check if the power supply is off and power it on again.

The screen is dim.

- Check whether the screen brightness and contrast settings are correct.

No voice from touch screen IP phone during the call.

- Check if touch screen IP phone is set as mute mode or if the volume is set to minimum.

Touch screen IP phone cannot monitor outdoor panel.

- The system is in use by other users.

Multimedia files does not play properly

- Check whether the system supports the file format. Please refer to multimedia setting for details.

The touch screen has slow response or is insensitive

- Remove any protective film from the touch screen, which may affect the identification or input of the device.
- Make sure your fingers are dry and clean when you touch the touch screen.
- Restart the device to clear any temporary software errors

Device temperature is high

- The high temperature is due to the long-term use of the equipment, which is normal and will not affect the service life or performance of the equipment.



Emergency Lighting



Emergency Lighting

Product

Order Code

Tuna - L - DALI Compatible - Continual - Two
Side - Surface Mounting - 3 Hours

ITR832-AC1



Product

Order Code

Somon XLED2 - DALI Compatible - 230LM -
On Emergency - Surface Mounting - 3 Hours

ITR832-AA2



Product

Order Code

Rina - DALI Compatible - Power LED -
205LM - On Emergency - Flush mounting - 3

ITR832-AA1



Product

Order Code

Tetra PW3 - DALI Compatible - 2x9W Power
LED - 1500LM - 3 Hours

ITR832-AA3

ITR832-AC1 - Double Sided Emergency Exit Luminaire



DESCRIPTION

Interra ITR832-AC1 double-sided emergency exit luminaire is an emergency exit device with anodized aluminium casing, polycarbonate side cover and pendant, 3 hours lifetime in emergencies. It offers an effective solution thanks to remote control and test features with DALI interface and SMD LED application. In addition, ITR832-AC1 screen printed transparent plexiglass material provides functional guidance in emergency situations owing to the status indicator with green and red LEDs and side lighting. However, it has overcharge and deep discharge protection as well as high temperature Ni-Cd battery cells. It can be installed according to the desired conditions with ceiling mounted, ceiling recessed (optional) and wall mounted options.

General Features:

General features of the emergency exit luminaire is shown below. Device's operating mode is maintained so that lights on mains and stays alight in case of the mains failure.

Rated Duration	Operating Mode	Light Source	Routing Mode	Type of Mounting(*)
3h	Maintained	12 x SMD LED	Double-sided	Surface Mounted Plastic Hanger

(*) : Surface mounted steel wire and surface mounted metal hanger is optional.

Mains Data:

Mains data information is shown in the table below. Mains current and rated power values are measured under 230 V mains.

Rated Power(W)	Mains Current	Power Factor	Dimensions (mm)	Weight (kg)	Carton Box Quantity
4,82	0,032	0,63	40x304x235	0,700	1

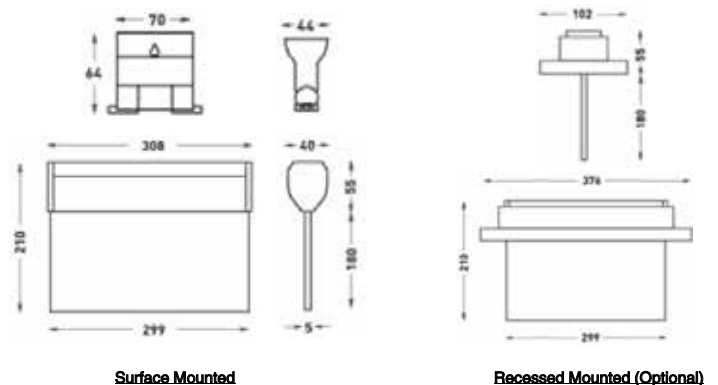
Test Switch Functions:

Short Press (<1s)	Starts the function test or terminate the all tests
Long Press (>5s)*	Starts the duration test.

LED Indication Functions:

Permanent GREEN	Charge Mode
Fast flashing GREEN (0,1s on—0,1s off)	Function test
Slow flashing GREEN (1s on - 1s off)	Duration test
Permanent RED	Load failure
Slow flashing RED (1s on - 1s off)	Battery failure
Fast flashing RED (0,1s on- 0,1s off)	Charging failure
Double pulsing GREEN	Inhibit mode
Binary transmission of address via GREEN/RED	Addressing or identification
GREEN and RED off	Emergency mode

Surface Mounted & Recessed Mounted (Optional) Technical Drawings:



ITR832-AA1 - Emergency Lighting Luminaire with Asymmetric Lens



Device	ITR832-AA1
Power Supply	230 VAC 50/60 Hz
Rated Duration	3 h
Battery Charging Time	24 h
Battery Type	3,6 V Ni-Cd
Light Source	Power LED
Diffuser	Asymmetric Lens (Optional: Symmetric)
Type of Protection	IP 20
Insulation Class	II
Temperature Range	Operation (-5°C...40°C) Storage (-15°C...55°C)
Maximum Air Humidity	< 90 RH
Material	Polycarbonate body
Colour	White
Flammability	Non-flammable product
Dimensions	Spot : 111 x 170.5 x 38.6 mm (WxHxD) Unit : 41 x 169.5 x 31.5 mm Battery : 39 x 221 x 34 mm

LED Indication Functions:

Permanent GREEN	Charge Mode
Fast flashing GREEN (0.1s on—0.1s off)	Function test
Slow flashing GREEN (1s on - 1s off)	Duration test
Permanent RED	Load failure
Slow flashing RED (1s on - 1s off)	Battery failure
Fast flashing RED (0,1s on- 0,1s off)	Charging failure
Double pulsing GREEN	Inhibit mode
Binary transmission of address via GREEN/RED	Addressing or identification
GREEN and RED off	Emergency mode

DESCRIPTION

Interra ITR832-AA1 is an emergency lighting luminaire with SMD power LED application and 3 hours duration usage in case of emergency. It offers an effective solution thanks to its long-lasting (approximately 50,000 hours) life-time. In addition, ITR832-AA1 has remote control and test features with DALI interface, and green and red LED status indicators. However, it has overcharge and deep discharge protection and charging circuit with constant voltage and current protect. Moreover, it operates safely under harsh environments with emergency lighting functions in case of low voltage and by interruption of the unswitched phase. ITR832-AA1 emergency lighting luminaire has polycarbonate body and can be recessed mounted on the proper locations.

General Features:

General features of the emergency lighting luminaire is shown below. Operate mode is non-maintained so that only lights in case of the mains failure.

Rated Duration	Operating Mode	Light Source	Light Intensity on Energy/Emergency	Type of Mounting	Battery Charging Time
3h	Non Maintained	Power LED	- / 205 lm	Recessed / Surface(*) Mounted	24 h

(*) : Surface mount is optional

Mains Data:

Mains data information is shown in the table below. Mains current and rated power values are measured under 230 V mains.

Rated Power	Battery Capacity	Mains Current	Power Factor	Dimensions (mm)	Weight (kg)	Carton Box Quantity
1,65 W	3,6V / 1800mAh	0,019	0,37	41x169.5x 31.5	0,080	1

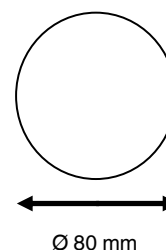
Battery Data:

Voltage	Capacity	Cell Type	Cell Size	Qty of Cell	Dimension	Weight

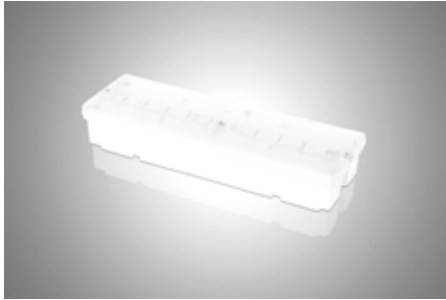
Long Press (>5s)*	Starts the duration test.
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(*) : The battery must be 100% full before the duration test can be started.

Recessed Mounting Hole Size:



ITR832-AA2 - Indoor & Outdoor Emergency Lighting Luminaire



Device	ITR832-AA2
Power Supply	230 VAC 50/60 Hz
Rated Duration	3 h
Battery Charging Time	24 h
Battery Type	3,6 V Ni-Cd
Light Source	SMD LED
Diffuser	Polycarbonate Glass
Type of Protection	IP 65
Insulation Class	II
Temperature Range	Operation (-5°C...40°C) Storage (-15°C...55°C)
Humidity	Moisture-proof
Material	Polycarbonate body
Colour	White
Flammability	Non-flammable product
Dimensions	108x341x60 mm (WxHxD)

LED Indication Functions:

Permanent GREEN	Charge Mode
Fast flashing GREEN (0,1s on—0,1s off)	Function test
Slow flashing GREEN (1s on - 1s off)	Duration test
Permanent RED	Load failure
Slow flashing RED (1s on - 1s off)	Battery failure
Fast flashing RED (0,1s on- 0,1s off)	Charging failure
Double pulsing GREEN	Inhibit mode
Binary transmission of address via GREEN/RED	Addressing or identification
GREEN and RED off	Emergency mode

DESCRIPTION

Interra ITR832-AA2 emergency lighting luminaire is an emergency lighting device that can be used indoors and outdoors, has a polycarbonate case and glass material, and has a 3-hour lifetime in emergency states. It offers an effective solution thanks to its high energy saving, long-life use (approximately 50,000 hours) and SMD LED application. In addition, ITR832-AA2 has remote control and test features with DALI interface, and green and red LED status indicators. However, it has overcharge and deep discharge protection as well as high temperature Ni-Cd battery cells. Moreover, it operates safely under harsh environments with emergency lighting functions in case of low voltage and by interruption of the unswitched phase. It can be installed according to the desired conditions with its ceiling-mounted, ceiling embedded and wall-mounted options and moisture-proof feature.

General Features:

General features of the emergency lighting luminaire is shown below. Device's operating mode is non-maintained so that lights in case of the mains failure.

Rated Duration	Operating Mode	Light Source	Light Intensity on Energy / Emergency	Type of Mounting	Battery Charging Time
3h	Non Maintained	20 x SMD LED	- / 230 lm	Recessed(*)/ Surface Mounted	24 h

(*) : Recessed mounted is optional.

Mains Data:

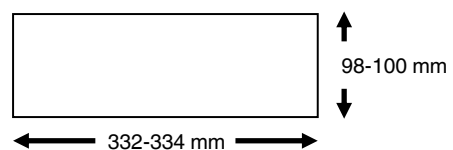
Mains data information is shown in the table below. Mains current and rated power values are measured under 230 V mains.

Rated Power	Mains Current	Power Factor	Dimensions (mm)	Weight (kg)	Carton Box Quantity

Long Press (>5s)*	Starts the duration test.
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(*) : The battery must be 100% full before the duration test can be started.

Recessed (Optional) Mounting Hole Size:



ITR832-AA3 - Emergency Lighting Luminaire with 180° Adjustable LED Headlamp

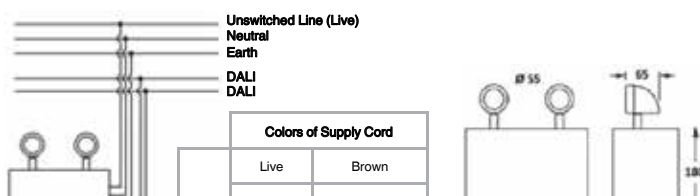


Device	ITR832-AA3
Power Supply	230 VAC 50/60 Hz
Rated Duration	3 h
Battery Type	12V Lead-Acid
Headlamp Type	9W LED
Type of Protection	IP 65
Insulation Class	II
Temperature Range	Operation (-5°C...40°C) Storage (-15°C...55°C)
Maximum Air Humidity	< 90 RH
Material	ABS
Colour	White
Flammability	Non-flammable product
Dimensions	98x255x205 mm (WxHxD)

LED Indication Functions:

Permanent GREEN	Charge Mode
Fast flashing GREEN (0,1s on—0,1s off)	Function test
Slow flashing GREEN (1s on - 1s off)	Duration test
Permanent RED	Load failure
Slow flashing RED (1s on - 1s off)	Battery failure
Fast flashing RED (0,1s on- 0,1s off)	Charging failure
Double pulsing GREEN	Inhibit mode
Binary transmission of address via GREEN/RED	Addressing or identification
GREEN and RED off	Emergency mode

Wiring Diagram & Technical Drawings:



DESCRIPTION

Interra ITR832-AA3 is an emergency lighting luminaire with 180° adjustable LED headlamp and 3 hours duration usage in case of emergency. It offers an effective solution thanks to its long-lasting use (approximately 30,000 hours) and SMD power LED application. In addition, ITR832-AA3 also has a status display with green and red LEDs, remote control and test features with DALI interface. However, it has overcharge and deep discharge protection and charging circuit with constant voltage and current protect. Moreover, it operates safely under harsh environments with emergency lighting functions in case of low voltage and by interruption of the unswitched phase. ITR832-AA3 emergency lighting luminaire with maintenance-free sealed lead acid battery and ABS case can be mounted on the wall.

General Features:

General features of the emergency exit luminaire is shown below. Device's operating mode is non-maintained so that only lights in case of the mains failure.

Rated Duration	Operating Mode	Light Source	Light Intensity on Energy / Emergency	Type of Mounting	Battery Charging Time
3h	Non Maintained	2 x 9W LED	- / 1500 lm	Surface Mounted	48 h

Mains Data:

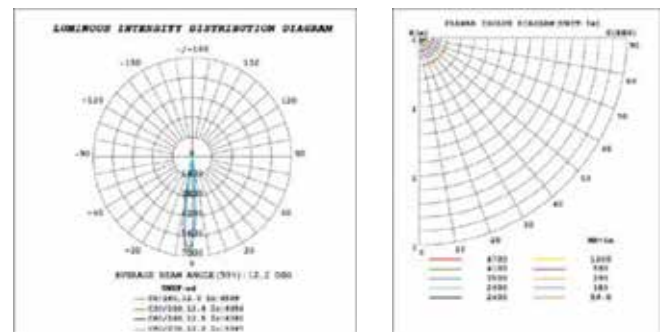
Mains data information is shown in the table below. Mains current and rated power values are measured under 230 V mains. Maximum values are measured with discharged batteries and minimum values are measured with full-charged batteries.

Rated Power(W)	Mains Current	Power Factor	Dimensions (mm)	Weight (kg)	Carton Box Quantity
1,25 - 8,90	0,010 - 0,058	0,50 - 0,67	98x255x205	4,50	1

Test Switch Functions:

Short Press (<1s)	Starts the function test or terminate the all tests
Long Press (>5s)*	Starts the duration test.

Light Distribution Curve:



'INTERRA

