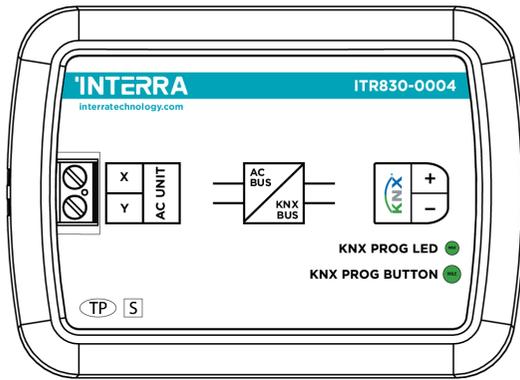


Mitsubishi Heavy Industries AC - KNX Gateway



DESCRIPTION

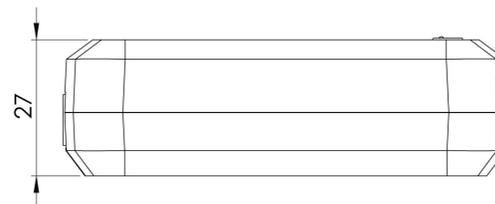
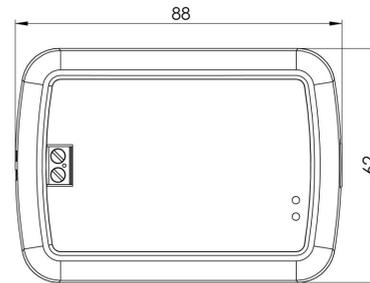
ITR830-0004 is an air conditioner gateway used for monitoring and controlling all the functioning parameters of Mitsubishi Heavy Industries air conditioners via the KNX bus line. Mitsubishi Heavy Industries AC - KNX Gateway is compatible with the RAC* series, FD series, KX6 and KXR6 (VRF) series types categorized at compatibility list sold by Mitsubishi Heavy Industries.

Mitsubishi Heavy Industries AC - KNX Gateway has an 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 the indoor unit model. Please refer to relevant technical documents.

DIMENSIONS & CONNECTION DIAGRAM

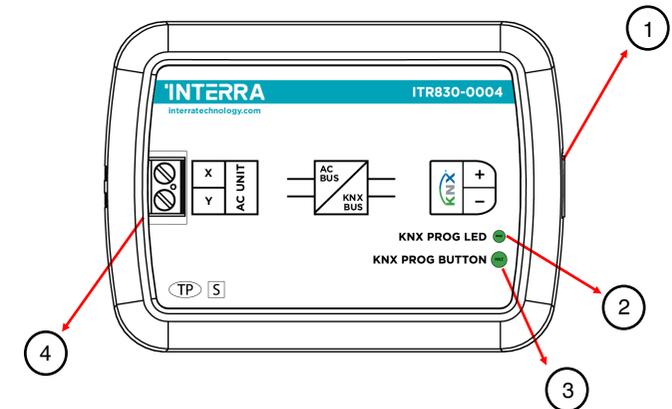
- All values given in the device dimensions are millimetres.



FUNCTIONS

- ITR830-0004 device provides complete bidirectional 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 the 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.

| | |
|------------------------------|---|
| Product Code | ITR830-0004 |
| Power Supply | KNX Power Supply |
| Current Consumption | 5 mA |
| Push Buttons | 1 x KNX Programming Button |
| LED Indicators | 1 x KNX Programming LED |
| Type of Protection | IP 20 |
| Cable Distance | Max 350 |
| Mode of Commissioning | S-Mode |
| Maximum Air Humidity | < 90 RH |
| Temperature Range | Operation (-10°C...70°C) Storage (-25°C...100°C) |
| Colour | Light Grey |
| Dimensions | 88 x 62 x 27 mm (W x H x D) |
| Certification | KNX Certified |
| Configuration | Configuration with ETS |



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

Gateway - Single Indoor Unit :

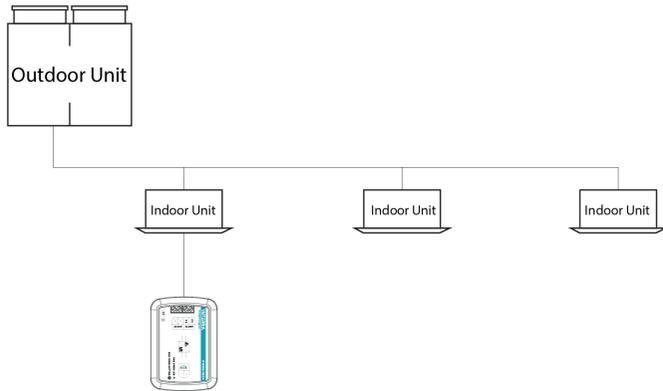


Figure 1

Gateway-Single Indoor Unit + Remote Controller :

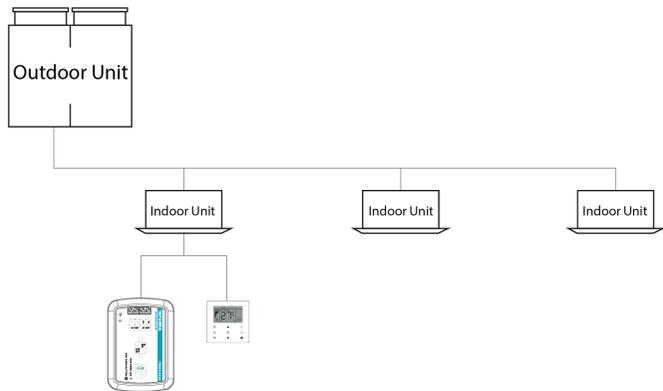


Figure 2

Gateway - Multi Indoor Unit :

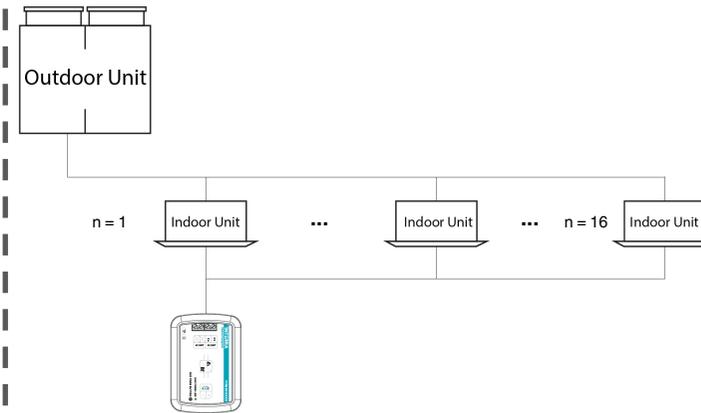


Figure 3

Figure 3 shows the connection diagram between the Mitsubishi Heavy AC-KNX Gateway and multiple air conditioner indoor units. Some indoor unit models do not support multi indoor unit control.

For detailed information, you can contact the air conditioner authorized service.

Gateway - Multi Indoor Unit + Remote Controller :

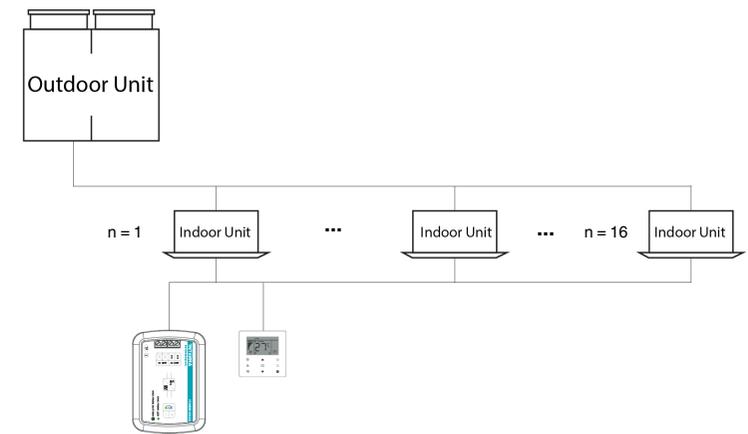


Figure 4

Figure 4 shows the connection diagram between the Mitsubishi AC-KNX Gateway, air conditioner remote controller and multiple air conditioner indoor units. If more than 2 indoor units are to be connected to an air conditioner remote controller, care must be taken to ensure that the connection is as shown in figure 4. Some Indoor unit models do not support multi indoor unit control.

For detailed information, you can contact the air conditioner authorized service.

ERROR CODES

| Error Code KNX | Error In Remote Controller | Error Description |
|----------------|----------------------------|--|
| 0 | N/A | No active error |
| 1 | E1 | Remote controller communication error |
| 2 | E2 | Duplicated indoor unit address |
| 3 | E3 | Outdoor unit signal line error |
| 5 | E5 | Communication error during operation |
| 6 | E6 | Indoor heat exchanger temperature thermistor anomaly |
| 7 | E7 | Indoor return air temperature thermistor anomaly |
| 8 | E8 | Heating overload operation |
| 9 | E9 | Drain trouble |
| 10 | E10 | Excessive number of indoor units (more than 17) by controlling one remote controller |
| 12 | E12 | Address setting error by mixed setting method |
| 14 | E14 | Communication error between master and slave indoor units |
| 16 | E16 | Indoor fan motor anomaly |
| 19 | E19 | Indoor unit operation check, drain motor check setting error |
| 28 | E28 | Remote controller temperature thermistor anomaly |
| 30 | E30 | Unmatched connection of indoor and outdoor unit |
| 31 | E31 | Duplicated outdoor unit address No. |
| 32 | E32 | Open L3 Phase on power supply at primary side |
| 33 | E33 | Inverter primary current error |
| 35 | E35 | Cooling overload operation |
| 36 | E36 | Discharge pipe temperature error |
| 37 | E37 | Outdoor heat exchanger temperature thermistor anomaly |
| 38 | E38 | Outdoor/Ambient air temperature thermistor anomaly |
| 39 | E39 | Discharge pipe temperature thermistor anomaly |

| Error Code KNX | Error In Remote Controller | Error Description |
|----------------|----------------------------|--|
| 40 | E40 | High pressure error |
| 41 | E41 | Power transistor overheat |
| 42 | E42 | Current cut |
| 43 | E43 | Excessive number of indoor units connected, excessive total capacity of connection |
| 45 | E45 | Communication error between inverter PCB and outdoor control PCB |
| 46 | E46 | Mixed address setting methods coexistent in same network |
| 47 | E47 | Inverter over-current error |
| 48 | E48 | Outdoor DC fan motor anomaly |
| 49 | E49 | Low pressure anomaly |
| 51 | E51 | Inverter anomaly |
| 53 | E53 | Suction pipe temperature thermistor anomaly |
| 54 | E54 | High/Low pressure sensor anomaly |
| 55 | E55 | Underneath temperature thermistor anomaly |
| 56 | E56 | Power transistor temperature thermistor anomaly |
| 57 | E57 | Insufficient in refrigerant amount or detection of service valve closure |
| 58 | E58 | Anomalous compressor by loss of synchronism |
| 59 | E59 | Compressor startup failure |
| 60 | E60 | Rotor position detection failure / Anomalous compressor rotor lock |
| 61 | E61 | Communication error between the master unit and slave units |
| 63 | E63 | Emergency stop |
| 65535 | N/A | Communication error between ITR830-004 and AC unit / Remote controller |