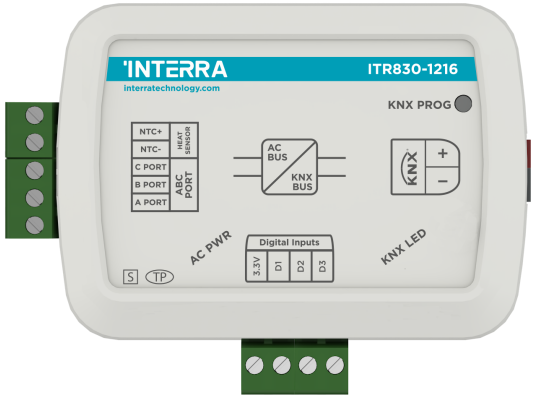
# Viessmann ABC Port
# AC - KNX Gateway




| | |
|---|---|
| **Product Code** | ITR830-X2XX |
| **Power Supply** | KNX Power Supply |
| **Current Consumption** | 5 mA |
| **Push Buttons** | 1 x KNX Programming Button |
| **LED Indicators** | 1 X KNX Programming LED<br>1 X AC Power LED |
| **Inputs** | 3 Digital Inputs* |
| **Type of Protection** | IP 20 |
| **Mode of Commissioning** | S-Mode |
| **Maximum Air Humidity** | < 90 RH |
| **Temperature Range** | Operation (-10°C…70°C)<br>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 |

*: Depends on **Models**

## DESCRIPTION

ITR830-X2XX is used for monitoring and controlling all the functioning parameters of Viessmann ABC Port air conditioners with KNX.

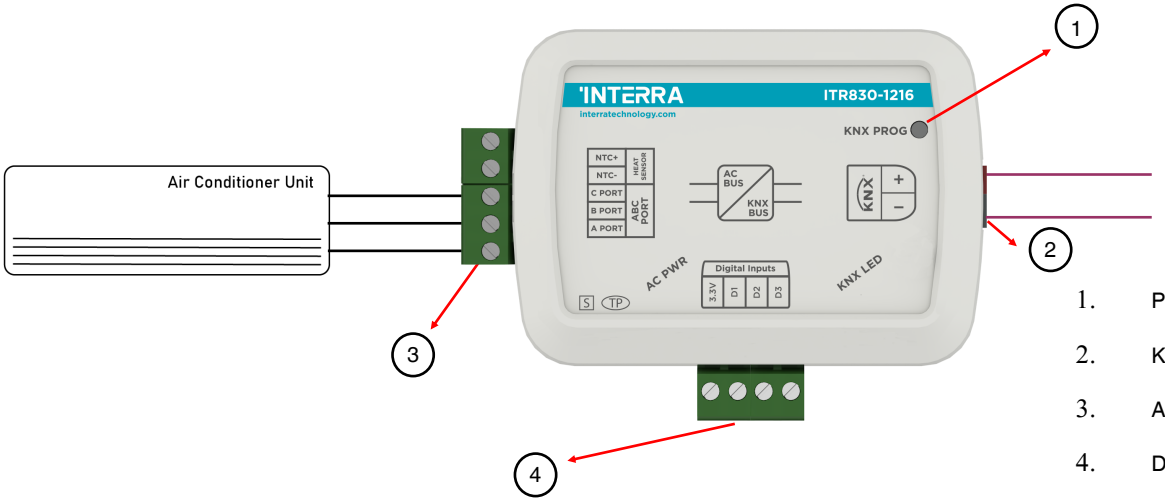
ITR830-X2XX has easy installation feature. It can be installed inside the own AC indoor unit, it connects one side directly to the electronic circuit of the AC indoor unit (cable supplied) and on the other side directly to the KNX bus.

| **ITR830-$X_1$2$X_2X_3$** | | | |
|---|---|---|---|
| $X_1$ | **0:** No Digital Input | **1:** Digital Input | |
| $X_2X_3$ | **4:** 04 Channels | **8:** 08 Channels | **16:** 16 Channels |

## FUNCTIONS

- ITR830-X2XX device, provides complete bi-directional integration of Viessmann ABC Port 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.
- An ambient temperature value is provided to the Air Conditioner Unit. The temperature value can be acquired from the Temperature input of the AC Gateway or, alternatively, through a KNX object from other KNX devices.
- Via 3 digital inputs, external devices can be connected.

## CONNECTION DIAGRAM




1. Programming Button
2. KNX Connector
3. AC Indoor Unit connection
4. Digital Inputs Connector*

# ERROR CODES

| Error Code KNX | Error Description |
|---|---|
| **Indoor Unit** | |
| 1 | Indoor ambient temp sensor TA (Tas) failure |
| 2 | Indoor gas pipe temp sensor TC1 failure |
| 3 | Indoor liquid pipe temp. sensor TC2 failure |
| 4 | Dual heat source sensor TW failure |
| 5 | Indoor EEPROM failure |
| 6 | Communication between indoor and outdoor failure |
| 7 | Communication between indoor and wired controller failure |
| 8 | Indoor float switch failure |
| 9 | Indoor address repeated failure |
| 10 | Reserved |
| 11 | Reserved |
| 12 | No 50 Hz zero passage signal |
| 13 | Coil sensor TC3 failure |
| 14 | DC motor failure |
| 15 | Indoor ambient temp. sensor TA (Taf) failure |
| 4096 | Communication Error |
| 4097 | Transmit Error |
| 4098 | Receive Error |
| 4099 | Clock does not exist |
| 4100 | There is not available NTC thermistor |
| 4101 | No ambient temperature error |
| 4102 | No hardware digital input connected |
| **Outdoor Unit** | |
| 20 | "Defrosting temp. sensor Tdef1 failure Defrosting temp. sensor Tdef2 failure" |
| 21 | Ambient temp. sensor Ta failure |
| 22 | "Suction temp. sensor Ts1 failure Suction temp. sensor Ts2 failure Suction temp, sensor Tsacc failure Suction temp. sensor Tsuc failure" |

| Error Code KNX | Error Description |
|---|---|
| 23 | "Discharging temp sensor Tdi failure Discharging temp sensor Td1 failure Discharging temp sensor Td2 failure" |
| 24 | "Oil temp sensor Toilp failure Oil temp sensor Toil failure." |
| 25 | "Inlet temp of heat exchanger Toci1 failure Inlet temp. of heat exchanger Toci2 failure" |
| 26 | "indoor communication failure Reduce the number of indoor units failure Increase the number of indoor units failure" |
| 27 | "Oil temp, too high protection (Toil) Oil temp too high protection (Toi2)" |
| 28 | "High pressure sensor Pd1 failure High pressure sensor Pd2 failure" |
| 29 | Low pressure sensor Ps failure |
| 30 | "High pressure switch HPSi failure High pressure switch HPS1 failure High pressure switch HPS2 failure" |
| 31 | Liquid pipe pressure Pl failure |
| 32 | "Outlet temp of subcooler Tsco failure Liquid pipe SC temp of subcooler Tliqsc failure" |
| 33 | EEPROM (AT24C04) failure |
| 34 | "Discharging temp too high protection (Tdi) Discharging temp too high protection (Td1) Discharging temp too high protection (Td2)" |
| 35 | "4 - way valve reversing failure 4 - way valve reversing failure" |
| 36 | "Oil temp, too low protection (Toil) Oil temp too low protection (Toi2)" |
| 37 | Lack of phase of 3N power supply or wrong phase sequence |
| 38 | High pressure sensor Pd too low protection |
| 39 | "Low pressure sensor Ps too low protection Compression ratio too high protection Compression 1 ratio too low protection Compression 2 ratio too low protection" |
| 40 | "High pressure sensor Pd1 too high protection High pressure sensor Pd2 too high protection" |
| 41 | "Water temp Twi too low protection Water temp Twi too high protection" |
| 42 | "Frost protection of water system Water system out of water freeze protection Water flow of Water system is too small to protect" |
| 43 | "Discharging temp sensor Tdi too low protection Discharging temp sensor Td1 too low protection Discharging temp sensor Td2 too low protection" |
| 44 | Low pressure sensor PS too high protection |
| 45 | Communication among outdoors failure |
| 46 | "Communication with inverter board 1 failure Communication with inverter board 2 failure" |
| 48 | Unloading valve SV1 failure |
| 53 | Current detector CT1 failure |
| 54 | Communication with Thermal storage module failure |

| Error Code KNX | Error Description |
|---|---|
| 55 | Thermal storage module LEV failure |
| 56 | Thermal storage module too hot failure |
| 57 | Communication between Thermal storage module and host computer |
| 58 | Thermal storage module Tc1 temp sensor failure |
| 59 | Thermal storage module Tc2 temp sensor failure |
| 60 | Reserved |
| 61 | Reserved |
| 62 | Reserved |
| 63 | Thermal storage module DIP setting failure |
| 64 | "CT1 over current CT2 over current" |
| 67 | Communication with motor driving board failure |
| 71 | "Left DC motor blocked Right DC motor blocked" |
| 72 | "Left DC motor reversed Right DC motor reversed" |
| 73 | "Left DC motor current too high Right DC motor current too high" |
| 75 | "No pressure drop between high pressure and low one Pressure too low between high pressure and low one" |
| 76 | Incorrect outdoor address or capacity setting |
| 77 | Oil equalization protection among outdoors |
| 78 | "Lack of refrigerant in cooling Lack of refrigerant in heating" |
| 79 | Incorrect wiring |
| 80 | Indoor and outdoor do not match |
| 81 | Model temp too high protection |
| 82 | Compressor current protection |
| 83 | Wrong model selection |
| 99 | Program self - test failure |
| 100 | DC motor driving board IPM alarm |
| 101 | DC motor driving board detecting out of control |
| 102 | DC motor driving board EEPROM faulty |

| Error Code KNX | Error Description |
|---|---|
| 103 | DC motor driving board over current or current detector damaged |
| 104 | Voltage too low protection of DC motor driving board |
| 105 | Voltage too high protection of DC motor driving board |
| 106 | DC motor driving board blocked |
| 107 | Protection of motor rate over Limitation |
| 110 | "Model 1 Over current model 2 Over current" |
| 111 | "Compressor 1 out of control Compressor 2 out of control" |
| 112 | "Radiator of model 1 temp too high Radiator of model 2 temp too high" |
| 113 | "Model 1 overload model 2 overload" |
| 114 | "Voltage too low of model 1 Voltage too low of model 2" |
| 115 | "Voltage too high of model 1 Voltage too high of model 2" |
| 116 | "Communication abnormal with model 1 Communication abnormal with model 2" |
| 117 | "Model 1 Over current (software)" |
| 118 | "Model 1 startup failure Model 2 startup failure" |
| 119 | "Current Detecting Circuit Abnormal of transducer 1 Current Detecting Circuit Abnormal of transducer 2" |
| 120 | "Power supply of transducer 1 abnormal Power supply of transducer 2 abnormal" |
| 121 | "Power supply of inverter board 1 is abnormal Power supply of inverter board 2 is abnormal" |
| 122 | "Radiator temp sensor of transducer 1 abnormal Radiator temp sensor of transducer 2 abnormal" |
| 125 | "Compressor 1 frequency not match Compressor 2 frequency not match" |
| 127 | MCU reset abnormal |
| 128 | MCU Program needs to be upgraded |