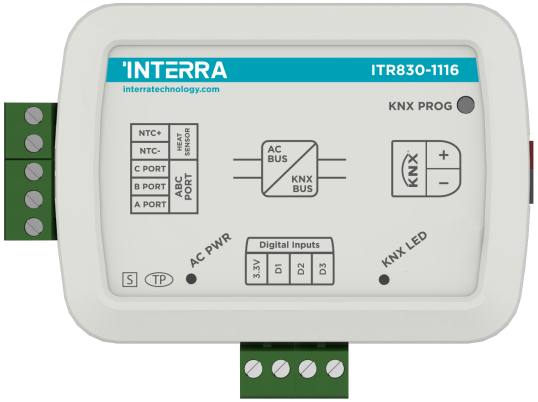
Haier ABC Port
AC - KNX Gateway



Product Code	ITR830-X1XX
Power Supply	KNX Power Supply
Current Consumption	5 mA
Push Buttons	1 x KNX Programming Button
LED Indicators	1 X KNX Programming LED 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) 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-X1XX is used for monitoring and controlling all the functioning parameters of Haier ABC Port air conditioners with KNX.

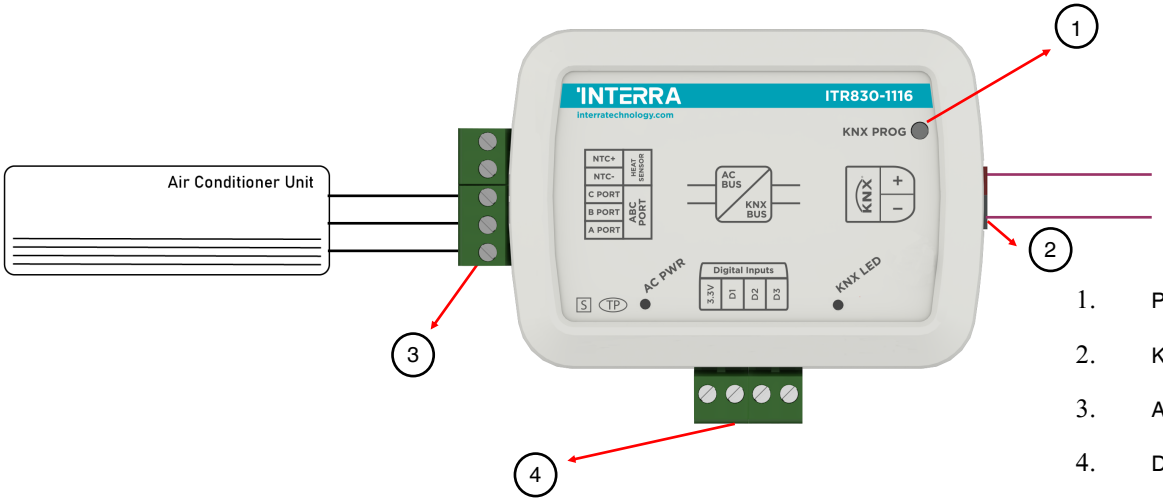
ITR830-X1XX has easy installation feature. It can be installed inside the own AC indoor unit, it connects one side directly to the electronic circuit of the AC indoor unit (cable supplied) and on the other side directly to the KNX bus.

ITR830-$X_1$1X_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-X1XX device, provides complete bi-directional integration of Haier 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*

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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"

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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

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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

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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

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