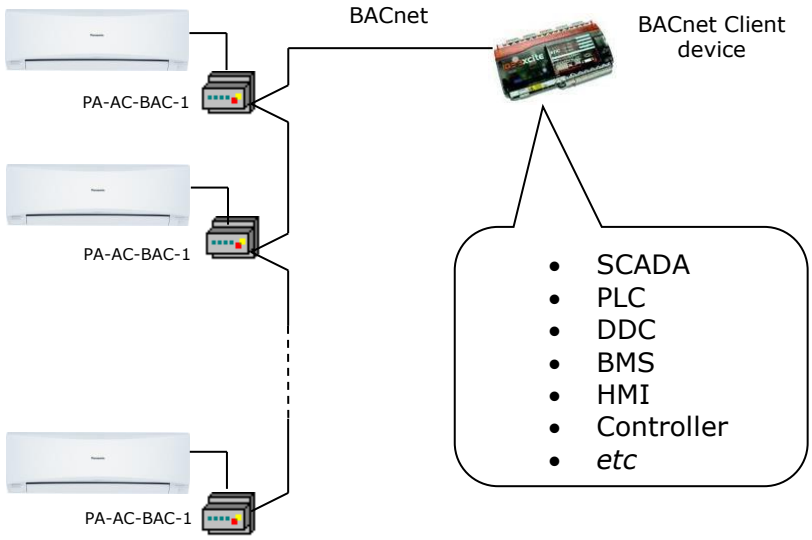
IntesisBox®
PA-AC-BAC-1

BACnet MS/TP & BACnet IP Server for PANASONIC Air Conditioners
(Etherea/RAC Line)



The PA-AC-BAC-1 interface allows a complete and natural integration of ***Panasonic*** air conditioners into either BACnet IP or MS/TP networks. Compatible with Domestic (RAC) line models commercialized by PANASONIC

- Reduced dimensions. 93 x 53 x 58 mm.
- Quick and easy installation. *Mountable on DIN rail, wall, or even inside the indoor unit in some models of AC*.
- External power not required.
- Direct connection to BACnet networks. PA-AC-BAC-1 is a BACnet MS/TP or a BACnet IP server (depending on configuration).
- Direct connection to the AC indoor unit.
- Total Control and Supervision. Real states of the AC unit's internal variables.
- Allows using simultaneously the IR and wired remote controls and BACnet.

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1. BACnet Interface (Member Objets)

Object-name	Description	Object-type	Object-instance
PA-AC-BAC-1	Panasonic AC Interface	Device	246000*
OnOff_status		BI	0
OnOff_command		BO	0
Mode_status		MI	0
Mode_command		MO	0
SetPoint_status		AI	0
SetPoint_command		AO	0
FanSpeed_status		MI	1
FanSpeed_command		MO	1
AirDirectionUD_status		MI	2
AirDirectionUD_command		MO	2
AirDirectionLR_status		MI	3
AirDirectionLR_command		MO	3
RoomTemperature		AI	1
ErrorCode		AI	2
ErrorCodeM		MI	4
ErrorActive		BI	1
OnTimeCounter		AV	0
PowerConsumption		AI	3
Occupancy		MV	0
OccupiedCoolSetPoint		AV	1
OccupiedHeatSetPoint		AV	2
UnoccupiedCoolSetPoint		AV	3
UnoccupiedHeatSetPoint		AV	4
OccupancyContinuousCheck		BV	0
UnoccupiedDeadbandAction		BV	1
LockRemoteControl		BV	2
Powerful_status		BI	2
Powerful_command		BO	1
Quiet_status		BI	3
Quiet_command		BO	2
RoomFreezeProtection_status		BI	4
RoomFreezeProtection_command		BO	3
EcoMode_status		MI	5
EcoMode_command		MO	4
HumanActivity		BI	5

* Configurable from BACnet side, the device configuration tool and the switch configuration. Check the user manual for more information.

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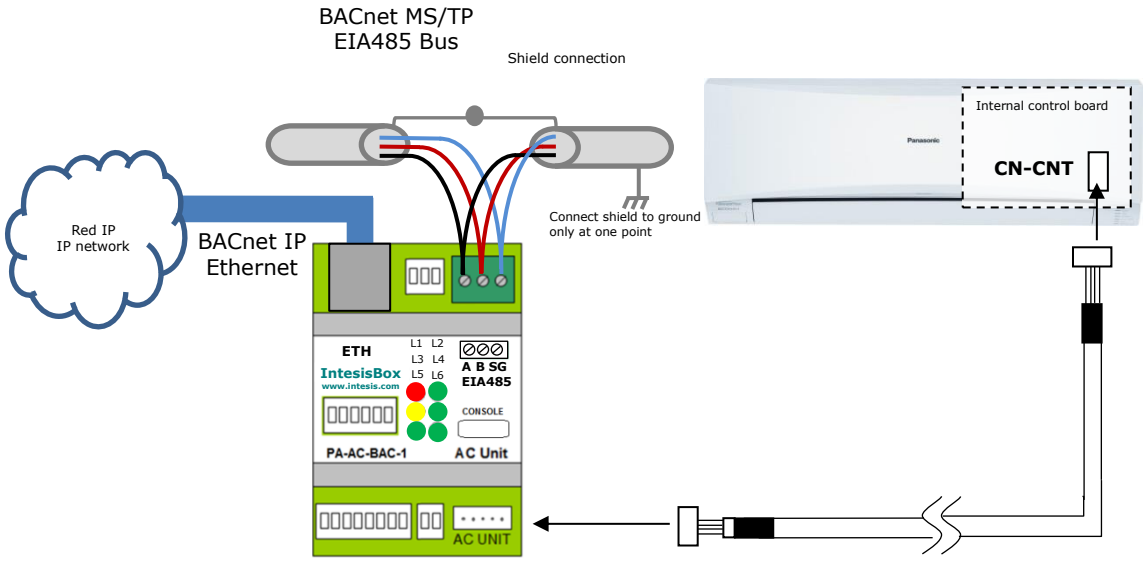
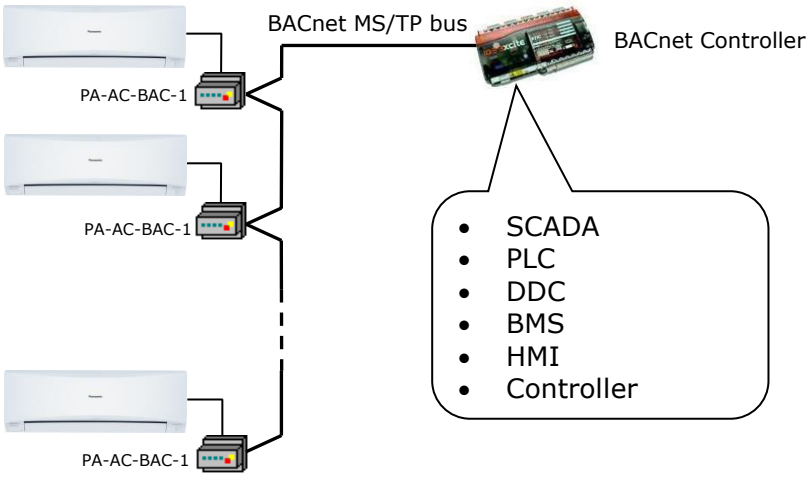
2. Connections

PA-AC-BAC-1 connects directly to the indoor unit connector using the **CN-CNT** and to the BACnet side using BACnet IP or BACnet MS/TP (See picture below).



2.1 Connection example to BACnet MS/TP



BACnet MS/TP installation sketch

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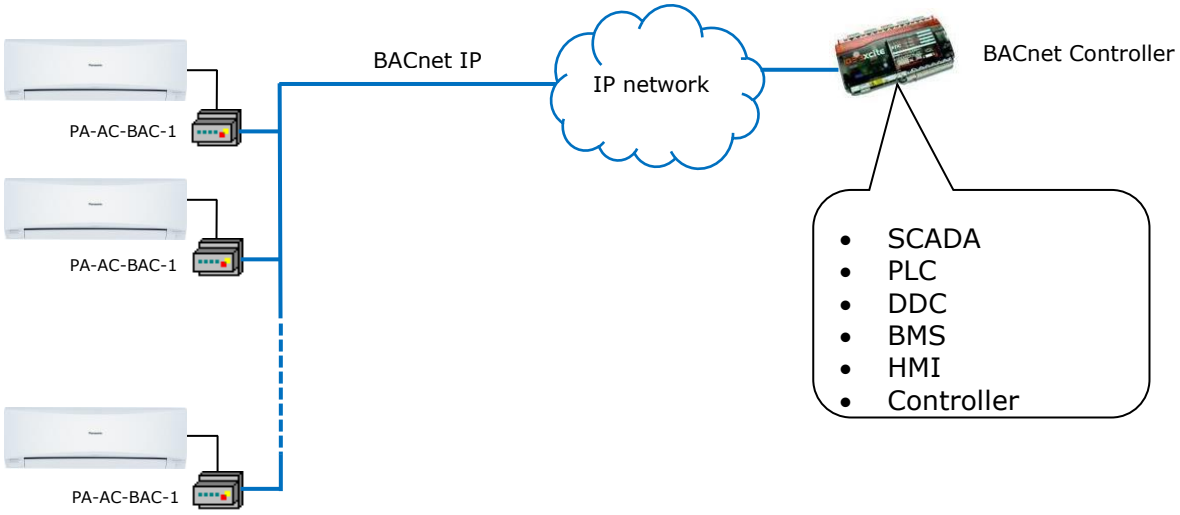
2.2 Connection example to BACnet IP



BACnet IP installation sketch

3. List of compatible Panasonic AC indoor units.

A list of Panasonic indoor unit model references compatible with PA-AC-BAC-1 and their available features can be found at:

http://intesis.com/pdf/IntesisBox_PA-AC-xxx-1_AC_Compatibility.pdf

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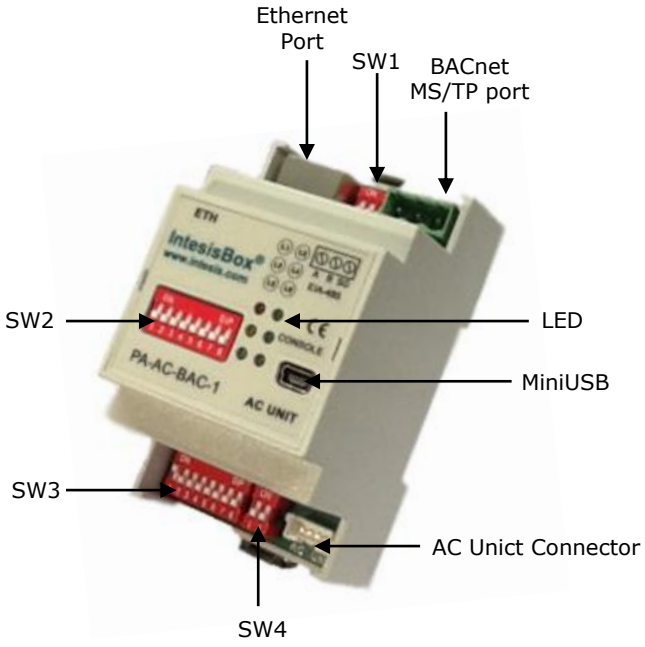
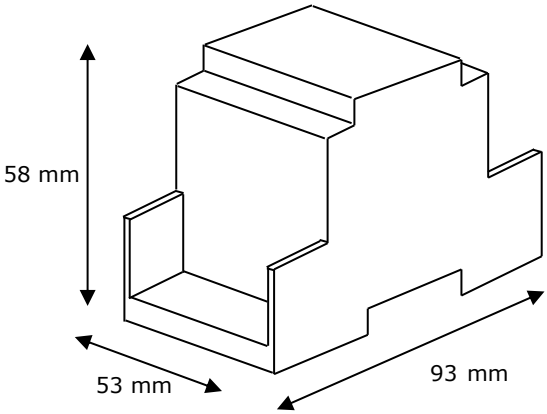
4. Technical Specifications

Enclosure	Plastic, type PC (UL 94 V-0). Dimensions: 93mm x 53mm x 58mm. Weight: 85 g
Color	Light Grey. RAL 7035.
Terminal wiring (for power supply and low-voltage signals)	Per terminal: solid wires or stranded wires (twisted or with ferrule) 1 core: 0.5 … 2.5mm^2 2 cores: 0.5 … 1.5mm^2 3 cores: not permitted
Console Port	Mini USB port for console usage
Mounting	Wall. DIN rail EN60715 TH35.
BACnet MS/TP port	1 x EIA485 Plug-in screw terminal block (2 poles + GND)
BACnet IP port	1 x Ethernet 10/100BT RJ45.
LED indicators	6 x Gateway/Communication status
Operational temperature	0°C to +70°C
Operational humidity	5% to 95%, non-condensing
Isolation Voltage	*4000 VDC (between AC unit and EIA-485)* *1000 VDC (between AC unit and console)*
Protection	IP20 (IEC60529).
RoHS conformity	Compliant with RoHS directive (2002/95/CE).
Certifications	CE conformity to EMC directive (2004/108/EC) and Low-voltage directive (2006/95/EC) EN 61000-6-1 ;EN 61000-6-3; EN 60950-1; EN 50491-3 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) This device may not cause harmful interference 2) This device must accept any interference received, including interference that may cause undesired operation.

5. Dimensions and connections





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