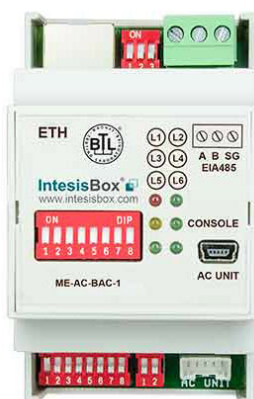# NC-ME-AC-BAC-1

BACnet MS/TP & BACnet IP Server for Mitsubishi Electric Air Conditioners
(Domestic Line, Mr Slim and City Multi)

Overview

The ME-AC-BAC-1 interface allows a complete and natural integration of Mitsubishi Electric air conditioners into either BACnet IP or MS/TP networks. Compatible with Domestic (RAC), Mr Slim and City Multi line models commercialized by MITSUBISHI ELECTRIC.

Applications

☐ For operation with Mitsubishi air conditioners

Features & Benefits

☐ Allows using simultaneously the IR and wired remote controls and BACnet.

☐ Total Control and Supervision. Real states of the AC unit's internal variables.

☐ Direct connection to the AC indoor unit.

☐ Direct connection to BACnet networks. NC-ME-AC-BAC-1 is a BACnet MS/TP or a BACnet IP server (depending on configuration).

☐ External power not required.

☐ Quick and easy installation. Mountable on DIN rail, wall, or even inside the indoor unit in some models of AC.

DISTECH CONTROLS™

Innovative Solutions for Greener Buildings™

Product Specifications

Environmental

Operational temperature	0°C to +70°C (32F to 158F)
Operational humidity	5% to 95% RH, non-condensing
Protection	IP20 (IEC60529), NEMA 1

Enclosure

Dimensions	93 x 53 x 58 mm (3.7" x 2.1" x 2.3")
Weight	85 g (0.19 lbs)
Material	Plastic, Type PC (UL 94 V-0)
Color	Light Gray RAL 7035
Mounting	Wall DIN Rail EN60715 TH35

Ports

BACnet MS/TP port	1 x Serial 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
Terminal wiring	For power supply and low-voltage signals per terminal: solid wires or stranded wires (twisted or with ferrule) 1 core: 20 AWG ... 14 AWG (0.5 mm^2 ... 2.5 mm^2) 2 cores: 20 AWG ... 16 AWG (0.5 mm^2 ... 1.5 mm^2) 3 cores: Not permitted
Isolation voltage	4000 VDC (between AC unit and EIA-485) 1000 VDC (between AC unit and console)

Regulatory Compliance

RoHS	Compliant with RoHS directive (2002/95/CE)
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
FCC	Complies with part 15 of the FCC Rules[1]

Compatibility

Compatible models	Refer to the Intesis website[2]

1. Operation is subject to the following two conditions:
• This device may not cause harmful interference
• This device must accept any interference received, including interference that may cause undesired operation.
2. A list of Mitsubishi indoor unit model references compatible with NC-MH-RC-MBS-1 and their available features can be found at:
https://www.intesisbox.com/intesis/support/compatibilities/IntesisBox_ME-AC-xxx-1_AC_Compatibility.pdf
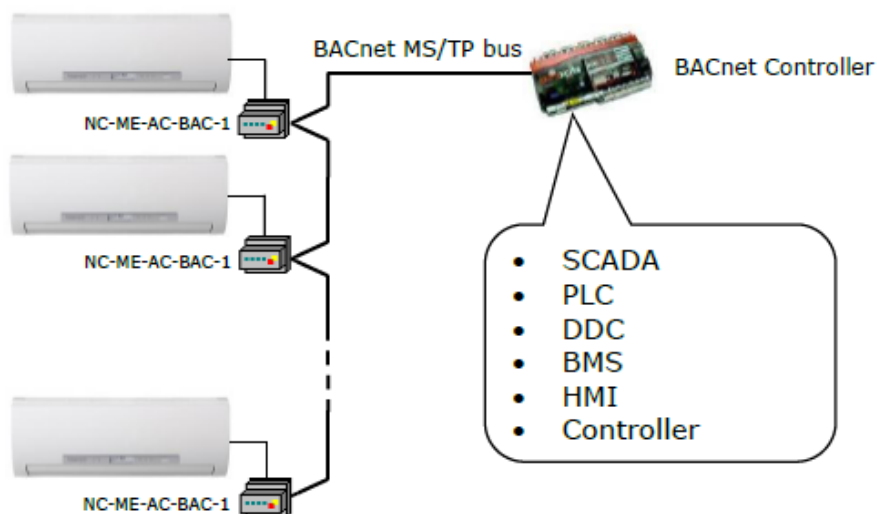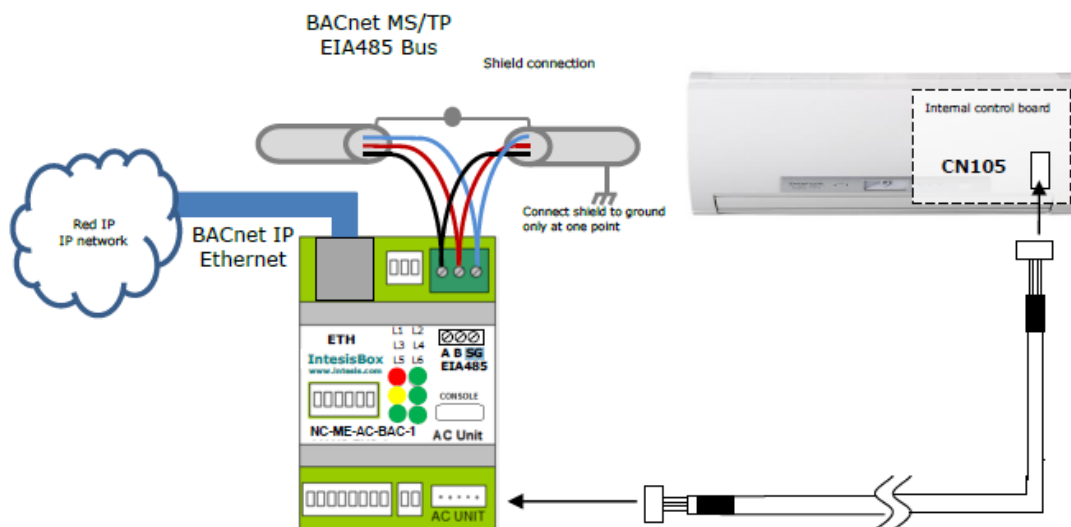
BACnet Interface (Member Objects)

Object-name	Description	Object-type	Object-instance
NC-ME-AC-BAC-1	Mitsubishi Electric AC Interface	Device	246000[1]
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
Occupancy		MV	0
OccupiedCoolSetPoint		AV	1
OccupiedHeatSetPoint		AV	2
UnoccupiedCoolSetPoint		AV	3
UnoccupiedHeatSetPoint		AV	4
OccupancyContinuousCheck		BV	0
UnoccupiedDeadbandAction		BV	1
LockRemoteControl		BV	2

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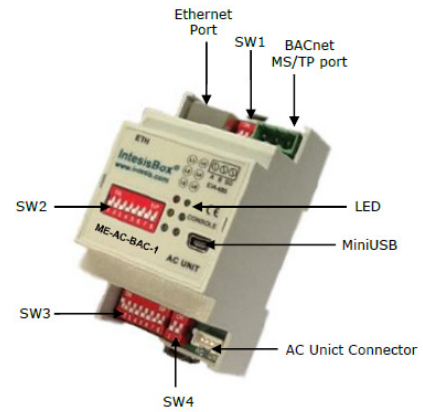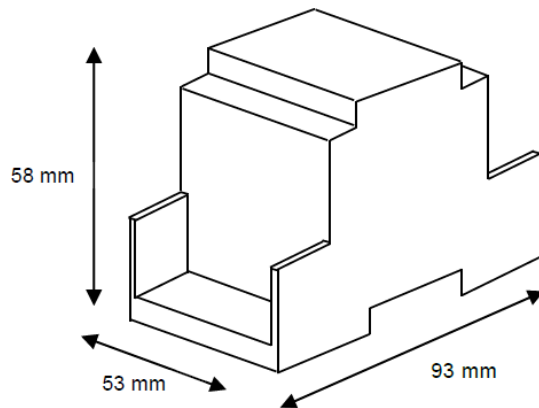
Connections

NC-ME-AC-BAC-1 connects directly to the indoor unit connector using the CN1051 and to the BACnet side using BACnet IP or BACnet MS/TP (See picture below).

BACnet MS/TP installation sketch

Dimensions

Ethernet Port

SW1

BACnet MS/TP port

SW2

LED

MiniUSB

SW3

AC Unict Connector

SW4

58 mm

53 mm

93 mm

NC-ME-AC-BAC-1_DS_10_EN