Protocol Converter/Gateway

BACnet Ethernet/IP & MODBUS TCP Protocol Converter PV-BMx1

【Description】

PV-BMx1 is a dedicated programmable stand-alone protocol converter that converts Panasonic FSV's communication adapter CZ-CFUNC2 to BACnet and MODBUS/TCP standard format for system integration. The PV-BMx1 is specially designed to integrate with Panasonic FSV system in the building, which can provide the setting and status monitoring of each air-conditioner in the system, allowing the building to realise the effect of high intelligence. The PV-BMx1 is equipped with MODBUS/TCP protocol, which can be integrated with any surveillance system with BACnet or MODBUS/TCP driver for interconnection and mutual control, and it is definitely the best equipment for you to build a surveillance system.

【Features】

- Compliant with the BACnet Application Specific Controller (B-ASC) class communication protocol established by the American Society of Heating, Refrigerating and Air Conditioning (ASHRAE) and compatible with BACnet systems.
- With MODBUS TCP Server function, PV-BMx1 will automatically map the data of CZ-CFUNC2 device to the default MODBUS data address (Register/Coil) for other MODBUS TCP Client devices to read.
- RS-485 communication interface can be connected to one CZ-CFUNC2 communication adapter. The RS-485 interface has a 1,000VDC potential isolation capability, which effectively prevents the two ends from interfering with each other's abnormal signals.
- USB Type-C interface, connected to a PC, can configure the controller's internal network parameters using terminal software.
- Standard BACnet data (objects) totalling 2,500 or 5,000 strokes with point description support.
- With power failure memory function, the parameters can be stored in FRAM automatically when power failure occurs.
- 10/100M Ethernet interfaces*3, selectable BACnet Ethernet or BACnet/IP communication layer, Ethernet communication interface can also be connected to workstations with BMCT BACnet Ethernet/IP & MODBUS TCP standard test suite software installed, which is provided to PV-BMx1+CZ-CFUNC2 system for installation and testing of converter settings. CFUNC2 system installation and testing, converter settings, and can be used to confirm the function of the protocol transfer, and to provide relevant fault detection functions.
- Passed by Panasonic Laboratories in Taiwan in connection test.

【Specification】

Model	Indoor Room unit	BACnet	MODBUS TCP	CZ-CFUNC2		BACnet Objects	MODBUS TCP Objects
PV-BM11-M	64	BACnet Ethernet or BACnet /IP	Server	RS-485	Line1	912	912
PV-BM21-L	128				Line1、Line2	1808	1808

Power Supply ： 24VAC, 5VA.

CPU & Memory ： 32 (CPU), 128K RAM、32K FRAM. 1024K Flash Memory.

Config Interface ： USB Type-C interface, connected to a PC, you can use the software with terminal function to set the internal network parameters of the controller.

Ethernet Port ： 10/100Mbps Ethernet interface*3 with Hub function for simultaneous BACnet (Ethernet or /IP) or MODBUS. TCP layer communication. BACnet (Ethernet or /IP) or MODBUS TCP communication layer at the same time.

TDnet Port ： RS-485 communication interface, can be connected to 1 CZ-CFUNC2 communication adapter, the maximum number of indoor units connected to 128 units, communication rate 19,200 BPS, the transmission distance of 1,200 metres.

MSnet Port ： RS-485 communication interface, can be connected to one panel, communication rate 9,600/19,200/38,400 BPS selectable, transmission distance 1,200 metres. Can be connected to DST series control panel.

Environment ： 0～50℃, 5～95%RH without condensation.

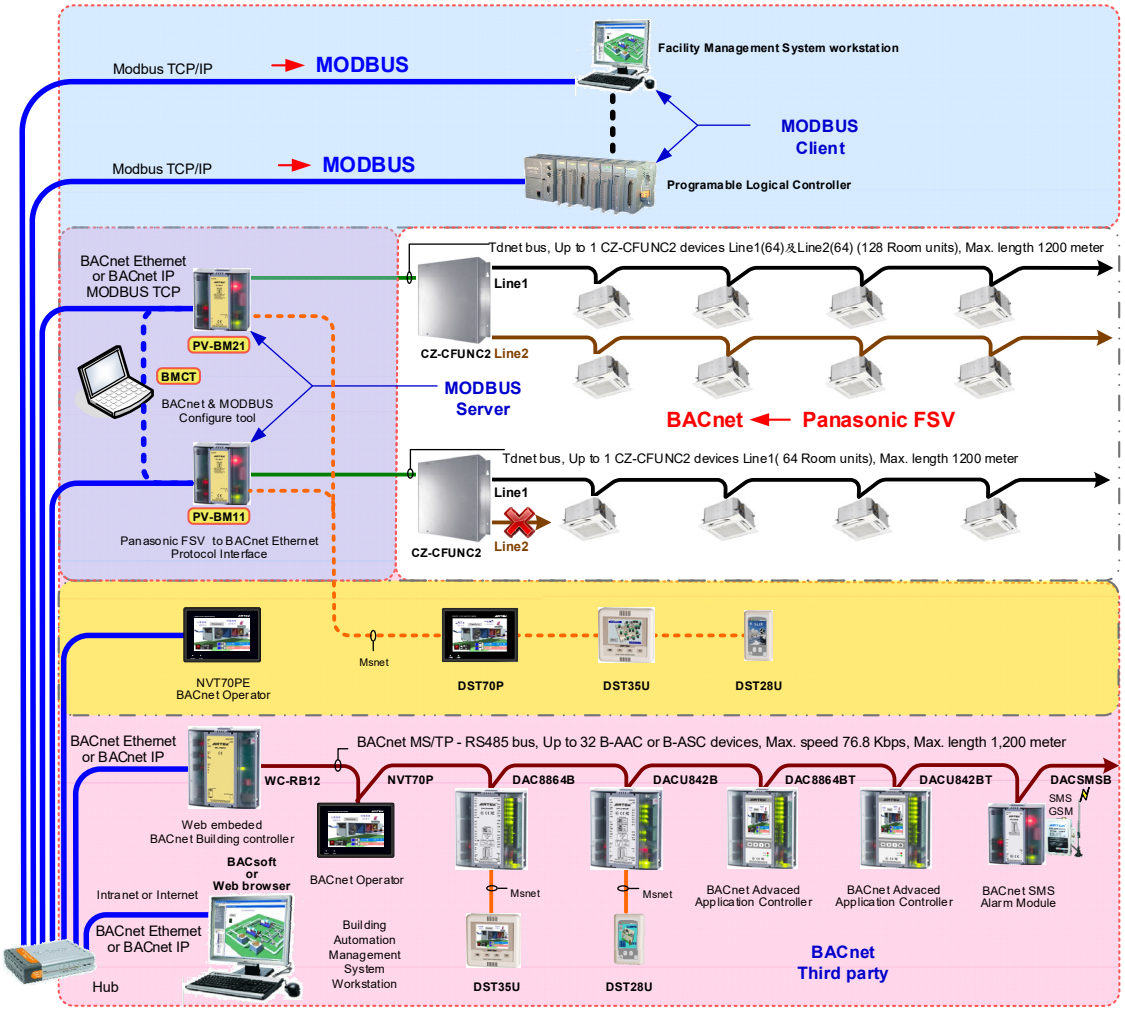
Approvals ： Panasonic Lab Tested.

Certification ： CE certified and RoHS compliant.

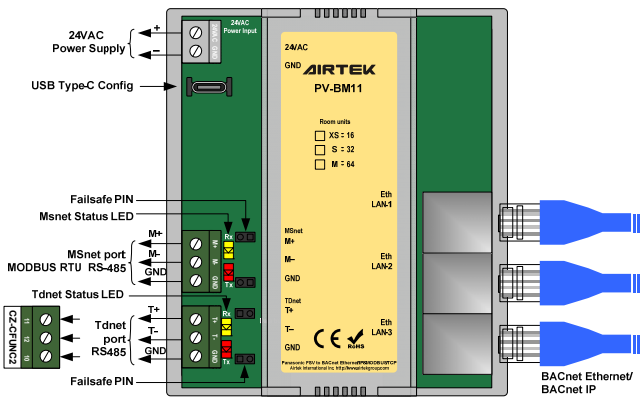
【Installation】

- Recommend using a transformer power supply for each device.
- Allow other TCP Client to Read/Write，TCP/IP Port default to 502 selectable.
- RS485 communications are limited by the number of communication points. Limit 1 x PV-BMx1 to 1 x CZ-CFUNC2, Use PV-BM21 for up to 128 indoor units.
- Airtek BACsoft Software is required to bind the BACnet/Modbus points to the CZ-CFUNC2 and set the MSnet port.

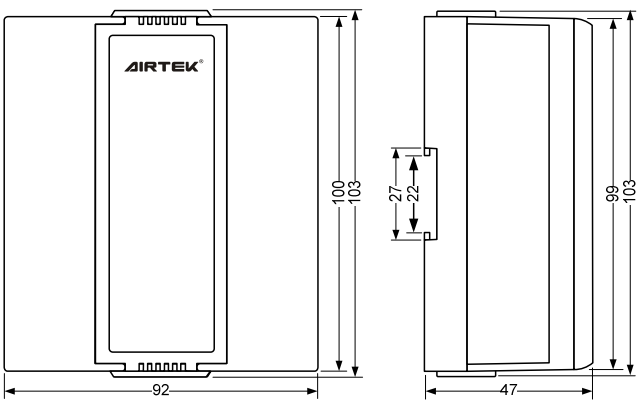
【Network】



【Wiring】



【Dimension】Unit：mm



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