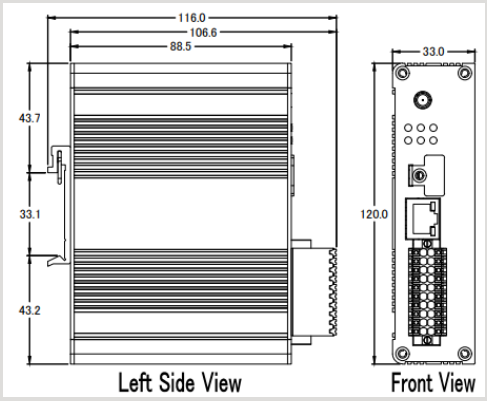
BACnet Series Products

Modbus TCP to BACnet MSTP Gateway



GW-2139M

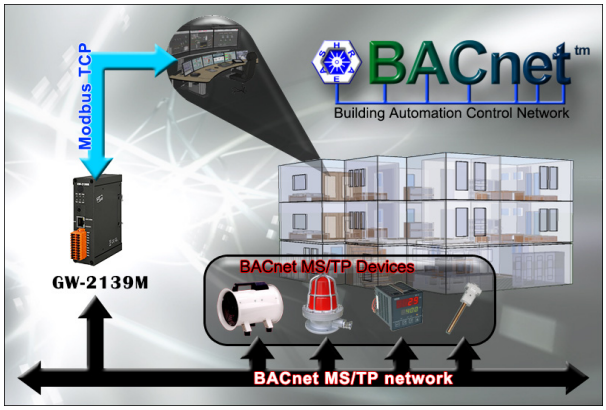


Dimensions

GW-2139M is a network gateway allowing Modbus TCP client devices to be accessed BACnet MS/TP network as a BACnet MS/TP master. The BACnet Master Slave Token Passing (MS/TP) protocol is used to relay and exchange information between building devices. GW-2139M contains a large number of BACnet objects (AI, AO, AV, BI, BO, BV, MSI, MSO, MSV) gives you flexibility in mapping Modbus TCP registers to any combination of BACnet objects. BACnet interoperability building blocks (DS-RP-A, DS-RPM-A, DS-WP-A, DS-WPM-A, DM-DDB-A, DM-DOB-A, DM-DCC-A, DM-RD-A) are Supported. All the data transfer is configurable using ICPDAS Utility.

Features

- Read/Write standard BACnet objects via modbus
- Configurable BACnet MS/TP master
- Configurable Modbus TCP server
- Simple data translation allows you to manipulate data
- SupGW-2139MGW-2139Mports BACne AI, AO, AV, BI, BO, BV, MSI, MSO, MSV Object Types
- Supports Modbus DI, DO, AO, AI Types
- BACnet object properties mapping configured via Modbus register
- Isolated COM : RS-485
- Provide LED indicators
- Built-in Watchdog
- 4KV ESD Protection



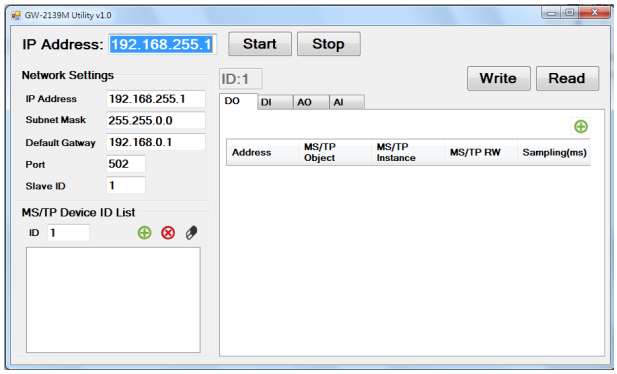
Application

- Building Automation
- Heating, Ventilating, and Air-conditioning Control
- Lighting Control
- Access Control
- Fire Detection Systems



Utiltity

- Provide Modbus TCP network configuration interface
- Provide BACnet MS/TP configuration interface



Hardware Specifications

Ethernet	
Controller	10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX)
Connector	RJ-45 with Ethernet indictor
Protocol	Modbus TCP Server
Maximum Connections	8
RS-485 Interface	
Connector	terminal block (D+, D-)
Baud Rate (bps)	9600, 19200, 38400, 57600, 76800
Communication format	N, 8, 1
Terminator Resistor	Built-in 120 ohm terminator resistor, enabled/disabled via Jump
Isolation	3 kV VDC for DC to DC, 2500 Vrms for photo couple
Protocol	BACnet MS/TP Master
Maximum Connections	32
BACnet Objects	AI, AO, AV, BI, BO, BV, MSI, MSO, MSV
BIBBs	DS-RP-A, DS-RPM-A, DS-WP-A, DS-WPM-A, DM-DDB-A, DM-DOB-A, DM-DCC-A, DM-RD-A
Power	
Protection	Power reverse polarity protection
EMS Protection	ESD, Surge, EFT
Supply Voltage	+10 VDC ~ +30 VDC
Power Consumption	5 W @ 24 VDC
LED Indicator	
LED (Round)	Power (1), BACnet MS/TP Status (1), BACnet MS/TP Net(1), Modbus TCP TxD / RxD / Link (3)
Ethernet LED	Ethernet LED Ethernet Status (RJ-45) (2)
Mechanism	
Installation	DIN-Rail
Casing	Metal
Dimensions	33 x 120 x 116 mm (W x L x H)
Environment	
Operating Temp.	-25℃ ~ +75℃
Storage Temp.	-30℃ ~ +80℃
Humidity	10 ~ 90% RH, non-condensing

BACnet MSTP Support

Objects	Binary Input / Binary Output / Binary Value / Analog Input / Analog Output Analog Value / Multi-state Input Multi-state Output / Multi-state Value
BIBBs	DS-RP-A, DS-RPM-A, DS-WP-A, DS-WPM-A, DM-DDB-A, DM-DOB-A, DM-DCC-A, DM-RD-A

Modbus TCP Support

Function Code	0x01, 0x02, 0x03, 0x04, 0x05, 0x06, 0x10, 0x0F

Odering Information

GW-2139M CR	Modbus TCP to BACnet MS/TP Gateway (RoHS)