

# BACnet Field Control Device

BACnet MSTP Application Specific Controller (MSTP)



# DSC8864B

## 【Description】

DSC8864B is a BTL approved standalone BACnet B-ASC class programmable controller. It is designed for monitoring and control of Mechanical Plant such as, large AHU, clean room, fume hood, chillers, pumps etc. It uses a 32-bit microprocessor, transmission rate up to 76,800 bps, transmission distance up to 1,200 meter. It has 8 Binary Inputs (BI), 8 Universal Inputs (AI), 6 Binary Outputs (BO) and 4 Analog Outputs (AO). In addition it has a Modbus RTU Port (Master or Slave) or set it to View Mode and now it can be used for dedicated input devices such as LCD wall Panels and Touch Screens etc. The EIM Port connects up to 12 EIM modules in any combination, allowing you to expand in response to the needs of various points. DAC8864B conforms and is tested to international BACnet MS/TP communication protocol and fully compatible with any other BACnet system. Live programming and debug modes for simple trouble shooting.



## 【Features】

- Conforms to ASHRAE and ISO16484-1 defined BACnet ASC standard communication protocol, compatible with BACnet systems.
- An MS/TP (Master-Slave/Token-Passing) communication interface connect to upper layer global controller.
- A MSnet Lan can connect a MST20V, MST20S, DSP20U, DST35U, DST28V control panel or a MODBUS RTU device.
- Binary input (BI) has 5,000Vrms optical coupling isolator capabilities and LED status indicators.
- Binary output (BO) has 5,000Vrms optical coupling isolator and LED status indicators.
- Universal Inputs (UI) are 12-bit resolution, can be jumper selectable to accept 3K $\Omega$  or 10K $\Omega$  NTC thermistor, 0~5VDC, 0~10VDC, 0~20mA or 4~20mA or dry contact input signals.
- Analog Output (AO) are 12-bit resolution, can be software selected as 0~10VDC or 2~10VDC output signals.
- User's control program can be downloaded, edited and saved in flash memory of the controller.
- Carry out calculations such as proportional, integral, differential, floating, logic, arithmetic and etc.
- 100 Binary Values (BV) and 100 Analog Values (AV), the analog value adopts high precision floating-point calculation.
- Priority control array by 16 for all BO, AO and BV.
- Provide power failure backup for all AI/BO/AO/BV/AV, values are stored in FRAM for at least 10 years.

## 【Specification】

Model	BI Points	UI Points	BO Points	AO Points	BV Points	AV Points
DSC8864B	8	8	6	4	100	100

Power Supply : 24VAC/VDC, 5VA.

Microprocessor : 32-bit high performance MCU, 64K RAM, 32K FRAM and 384K Flash memory.

Binary Input (BI) : 12VDC detection voltage, 5,000Vrms optical coupling isolator, 100hz dry contact or open collector signal.

Universal Input (AI) : 12-bit resolution, jumper selectable 3K/10K $\Omega$  NTC thermistor, 0~(5)10VDC, or 0(4)~20mA, dry contact signal.

Binary Output (BO) : 5A/250VAC non-voltage SPST contact output, having 5,000Vrms optical coupling isolator.

Analog Output (AO) : 12-bit resolution, 0~10VDC or 2~10VDC output signal.

Auxiliary Power : Provide 24VDC/160mA power supply for external transmitter.

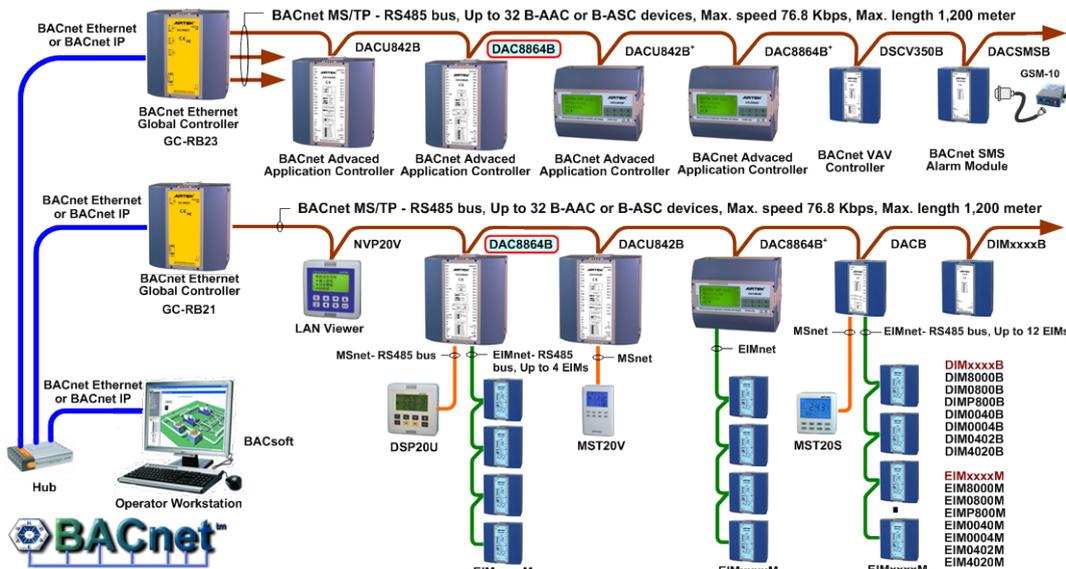
MS/TP Port : 2-wire MS/TP RS-485 bus, communication speed 9,600/ 19,200/ 38,400/ 76,800 bps, auto select, max. length 1,200 meters, having 2500Vrms optical coupling isolator and TVS ARRAY surge protection.

MSnet Port : Selectable mode:- View Port mode for connecting a MST20V, MST20S, DSP20U, DST35U, DST28U control panel or MODBUS RTU mode (Master or Slave) 9600- 76800bps..

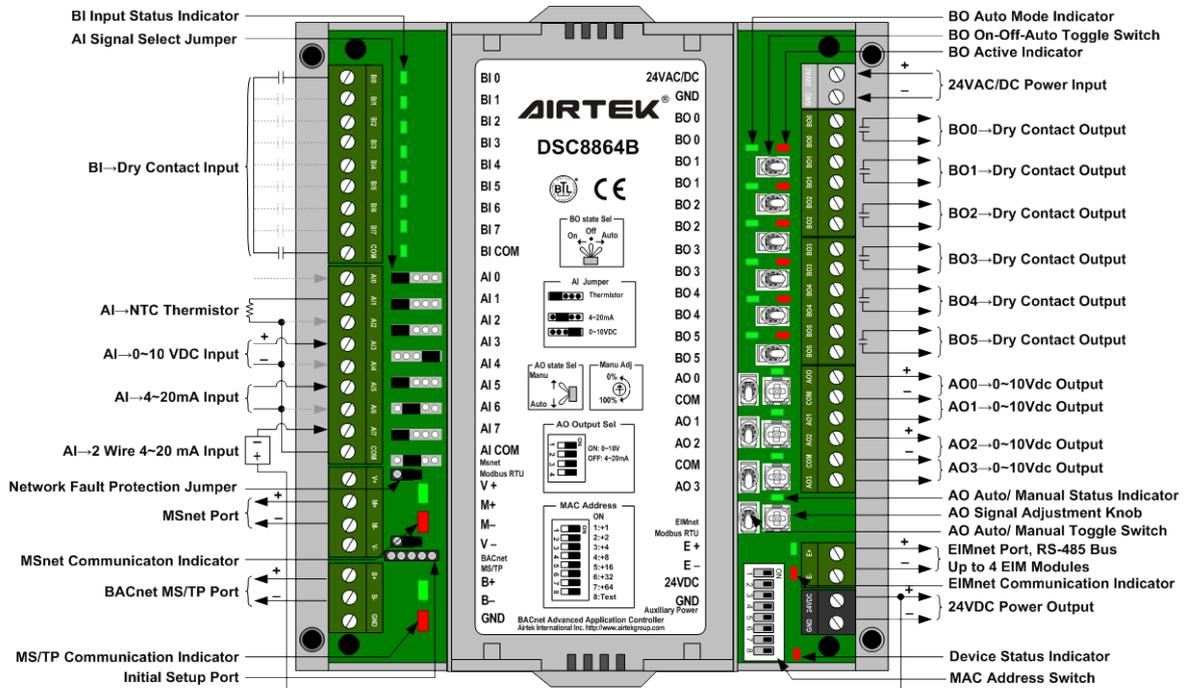
Environment : 0~70 $^{\circ}$ C, 0~95%RH, non-condensing

Certification : BTL, EMC Directive 89/336/EEC (European CE Mark) UL (E363354).

## [Network]



## [Wiring]



- Note :
1. Besides the BACnet MS/TP GND, all other GND and COM are inner connected together.
  2. Make sure to select correct signal type for AI and AO.
  3. Make sure there is enough power supply when DAC work with EIMs.

## [Dimension] Unit : mm

