Field Control Layer Device

DT4211B

BACnet LCD PID temperature controller

【Description】

DT4211B is a BACnet B-ASC class PID temperature controller. It is designed to monitor and control building AHU or PAH. It uses 32-bit microprocessor core, communication up to 76,800 bps, transmission distance up to 1,200 meters. DT4211B has 4 Binary Inputs (BI), 2 Analog Inputs (AI), 1 Binary Output (BO), and 1 Analog Outputs (AO). DT4211B has an LCD control panel on it that make user operation and control easily at the job site. DT4211B conforms international BACnet MS/TP communication protocol and fully compatible with any BACnet system. It is absolutely the best product for your building.

【Features】

- Conforms to ASHRAE and ISO16484-1 defined BACnet B-ASC standard communication protocol, compatible with BACnet system.
- MS/TP(Master-Slave/Token-Passing) communication interface connect to the upper layer, global controller.
- A stand alone 32 bits CPU with preset control firmware.
- Large LCD display, show setting and actual temperatures with four characters each line. Show unit for these two values with three characters each. High lumen backlight.
- A control panel ready design. Installation in a control room directly. Save time to design and make a panel.
- Four Binary Inputs (BI) accept dry contact or open collector signal to monitor running status, overload interrupts, filter, smoke detector.
- Two Analog Inputs (AI) with 12-bit resolution, first one accept 10KΩ NTC thermistor, second one accept the 0~10VDC or 4~20mA signal.
- A Binary output (BO) with 7A/250VAC dry contact output, it can control an electrical device directly.
- An Analog Output (AO) with 12-bit resolution 0~10VDC or 2~10VDC output signal.
- Eight operation buttons to start/stop, temperature setting, alarm confirm, and setting.
- Selectable alarm style as LCD code display, LCD backlight flash, or buzzer
- Password setting for each user group. Time display, show current system time.
- Fail-save function, keep save all setting status in flash memory.

【Specification】

Model	BI	AI	BO	AO	Note
DT4211B	4	2	1	1	When connected to the building controller, it can be set to have the time display function.

Power Input： 220VAC, 15VA (380VAC specifications are available, please specify when ordering).

Power Output： 24 VAC, 12VA power output for valve, 12 VAC, 3VA for control board, 16 VDC for two wire sensor.

Digital Input (BI)： 12VDC dry contact inputs, 5,000Vrms anti-interference, dry contact or open collector input signal.

Digital Output (BO)： 7A/250VAC SPST relays, dry contact output, having 5,000Vrms optical coupling insulator.

Analog Input (AI)： 12-bit resolution, accepts 10KΩ (@25℃) NTC temperature sensor (sensing range 0~70℃), 0~10Vdc or 4~20mA signal.

Analog Output (AO)： eight bit 0~10Vdc analog output.

LCD Display： Eight groups of seven-segment digital displays, six groups of rice character display and other graphic displays totaling 160 display points, with backlight design.

MS/TP Network： RS-485 communication interface, built-in anti-interference isolator with rated isolation voltage of 2,500Vrms, maximum working insulation voltage of 560Vpeak, communication rate of 9,600/19,200/38,400/76,800 BPS optional, transmission distance of 1,200 meters.

Box Material： PC fire resistant, UL-94V2, light gray (Default).

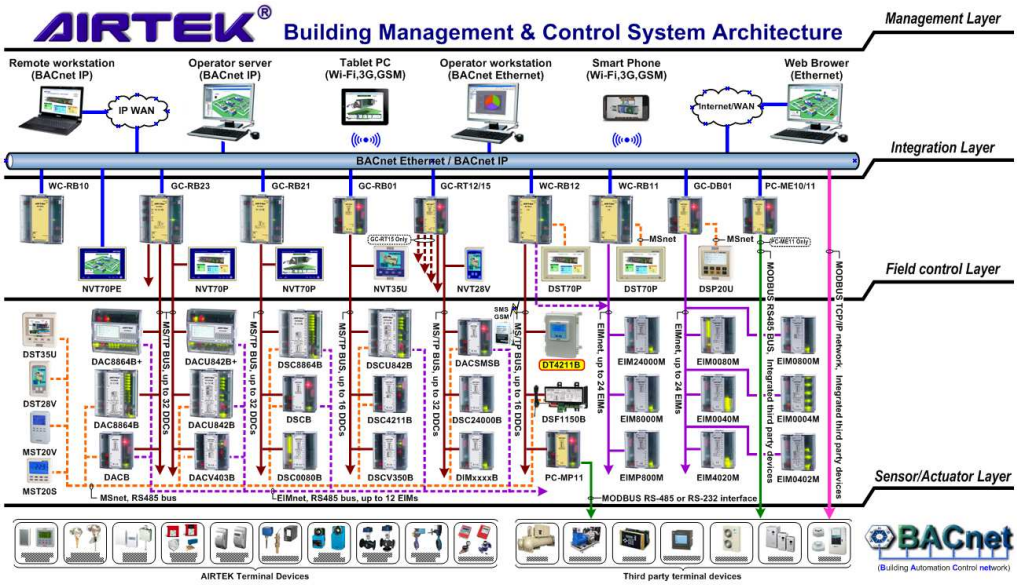
Environment： 0~50℃, 5~95%RH, non-condensing

Certification： CE, RoHS

Component： DT4211B including DT4211B-LCD+DT4211-IOB+PPC...+TL... and other components.

Model	Component	Model	Component	Model	Component
DT4211B-LCD	Control Panel	**PPC01902914**	Plastic Box	**TL220T24015**	Transformer 220/24&12,15VA
DT4211-IOB	IO PBC	**PGS01902914**	Metal Box	**TL380T24015**	Transformer 380/24&12,15VA

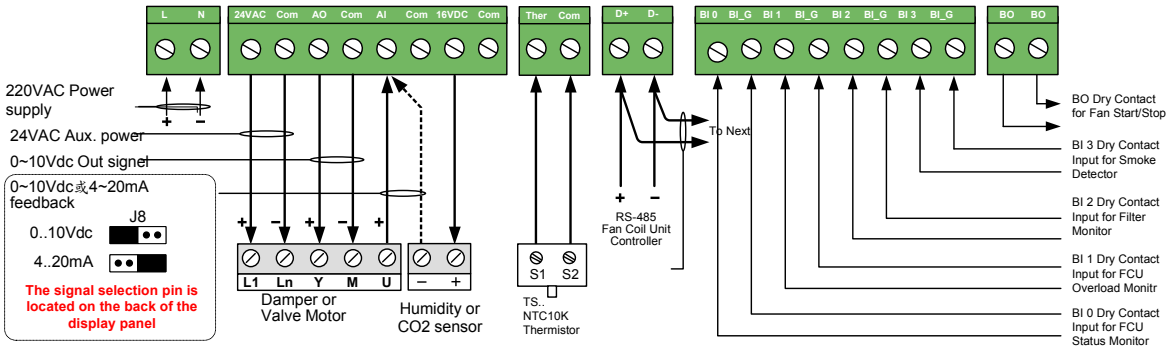
【Network Architecture】



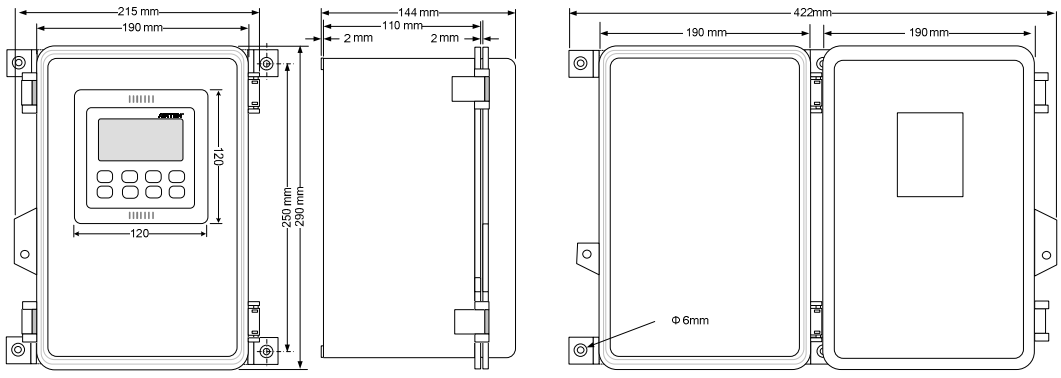
【Wiring Instruction】

- When the controller and the electric proportional control valve share a transformer, please note that the positive and negative polarity of the power supply cannot be connected wrongly, otherwise the equipment may be damaged.
- When installing the panel, fix the iron plate with screws first, then install the controller and push it down to fix it. When removing it, operate in the reverse order.
- Wires used for network transmission must be shielded cables with aluminum foils above AWG18 to prevent noise interference.
- The wires used for digital signals must use PVC wires of 0.75 mm2 or more.
- The wires used for analog signals must be shielded cable wires individually shielded by aluminum foil above AWG22 to prevent noise interference.
- EMT pipes must be used for network transmission and signalling and must be independently equipped. They cannot be shared with other system pipes, and avoid any power supply pipes to prevent interference.
- Network cables configuration needs to adopt the one-in-one-out method, cannot be implemented by junction box or T-connection, and 120Ω terminal resistance is connected in parallel at the front and rear ends to obtain a good communication effect.
- The analog input point (AI) can accept 0~10Vdc or 4~20mA signals. It is necessary to switch the signal selection pin on the back of the display panel.

【Wiring Diagram】



【Dimension】Unit：mm (This is the dimension of PC box)



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