# Field Control Layer Device

## BACnet Operator Touch Display panel

# NVT70PE

### 【Description】

**NVT70PE** touch graphic display panel is a BACnet (B-OD) operator display panel. It has a 32 bit microprocessor, network speeds of up to 76.8K bps and use's Bacnet IP or MSTP protocol. Create Control/Graphic pages including dashboards using the FREE Airtek HMIkit software and download into the screen. User can read/write data of any manufacturers BTL listed bacnet device including schedules on the network and can either control multiple devices with a NVT70PE or control a single device with multiple NVT70PE. The screen can send Global time synchronization on the network as well as instantaneously trend log. The screen stores the last 90 Network Alarm notifications with a link to the appropriate graphic page.


### 【Features】

- BTL listed BACnet Operator Display (B-OD) panel.
- Communication interface ia BACnet Ip or MS/TP communication protocol.
- BACnet MS/TP interface with 2500Vrms electrical isolated protection.
- Edit display with AIRTEK BACsoft or HMIkit software. 65,536 colors.
- Selectable Simplified Chinese, Traditional Chinese, and English display.
- Update firmware and graphic pages by using a Mini USB cable.
- 128M Bytes fonts and graphic memory with up to 152 pages of 800*480 pixel bmp pictures.
- Create GUI graphics such as Meter, loading bar, trend log charts as read only or Read/Write.
- Read properties of a BACnet device from the network. The reading property can be logic, value, list, string, object, time, date, or list status of a bit string.
- Displays incoming alarm notification messages from any device on the network and stores the last 90 alarms.
- The panel can modify Calendar、Schedule of any B-AAC or B-BC device on the Ethernet IP or MSTP network, compliant with SCHED-VM-A (BIBB - Scheduling-View and Modify-A).
- 10 password levels, users can setup up to 20 passwords.
- Enable or Disable Global Time synchronizes function on the BACnet network.

### 【Specification】

| Model | Port | Protocol | Size | Control Buttons | Color |
|---|---|---|---|---|---|
| NVT70PE | IP<br>MS/TP | BACnet | 7" | Physical | Beige shell, soft blue inscription plate |
| NVT70PE-BL | IP<br>MS/TP | BACnet | 7" | Touch Screen | Black case, black aluminum plate |

**Power Supply** : 24VAC/VDC, 2VA (Do not use the 24VDC onboard Airtek Controllers.)

**LCD Display** : 7.0", 262K colors, touch screen TFT LCD, 800*480 pixels.

**Microprocessor** : 32 bits Microprocessor, 1M SRAM, 128M NAND Flash memory, 128M memory for fonts and user information.

**Ethernet Port** : 10/100M Ethernet interface, can be either BACnet Ethernet or BACnet IP communication protocol.

**MS/TP Port** BACnet MS/TP RS-485 interface, communication speed 9,600/ 19200/ 38400/ 76800 bps, max. length 1,200M. 2500Vrms isolate. Insulation voltage 560Vpeak. Connect up to 32 MS/TP devices.
(Note: Choose either Ethernet or MS/TP mode.)

**USB Port** : Dedicated Mini USB for firmware update and graphic display downloads.

**Real Time Clock** : Backed by a gold capacitor. Maintains Clock function when powered down.

**Function Buttons** : NVT70P has four function buttons, ⚙+ F1 + F2 + F3. ⚙ for system setting.
NVT70P-BL has four function buttons appear on the display when the user touches the upper right corner of the display.

**Beeper** : An audible alarm sounder built in.

**IP Rating** : Front pane IP65, NEMA4

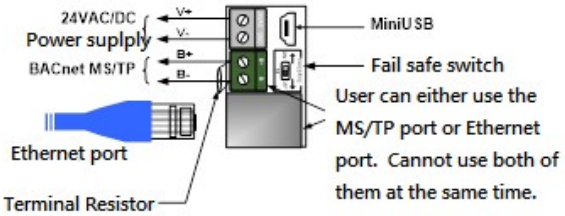
**Environment** : 0 ~ 50℃, 2 0 ~ 90%RH non-condense.

【Photo】

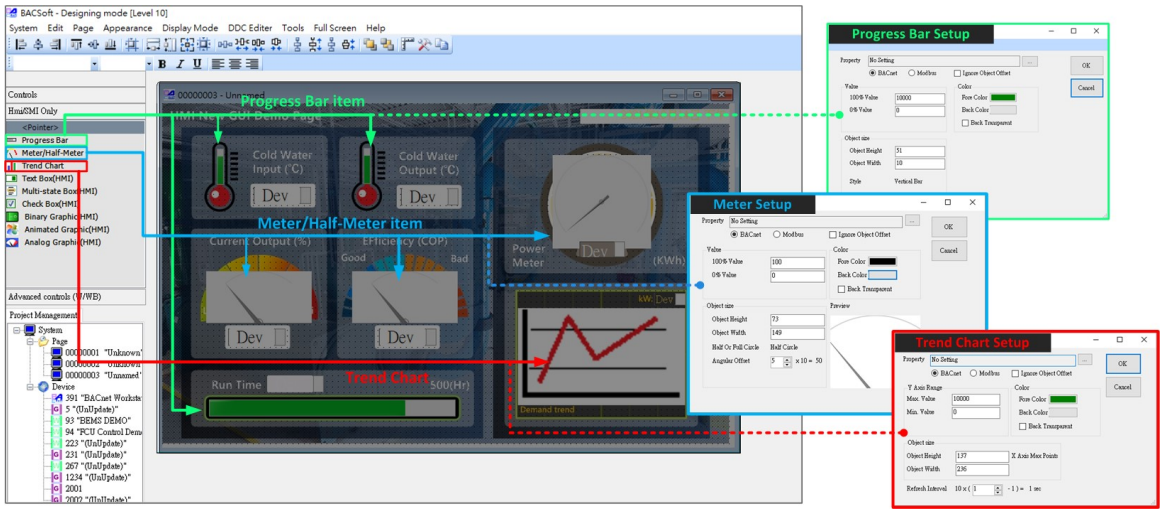
NVT70PE

NVT70PE-B

【Wiring】

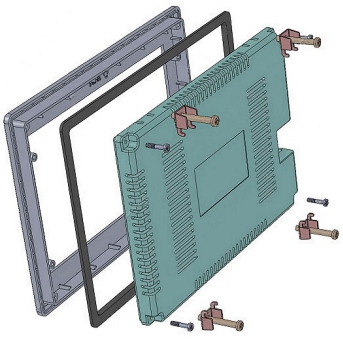



【Edit Display】

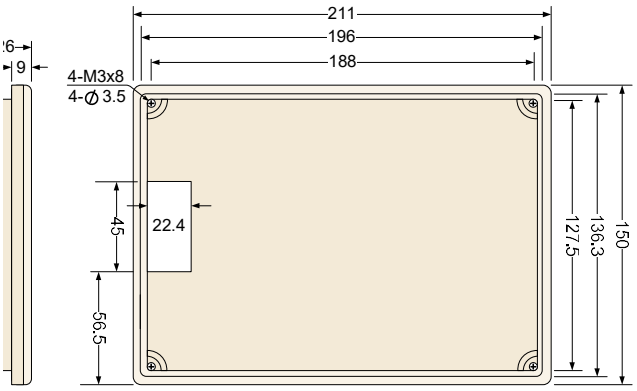



## 【Installation】

- For panel mounted, must cut a hole 197.6±0.5 mm (height) *137.1±0.5 mm (width) for the panel, It should have enough wiring space for power and network.
- Insert screen in the cutout and lock in the fixing mounts by tightening the screws.
- Use the AWG18 #2C shield cable and EMT to obtain good communications.
- Recommended to use an independent 24VAC/24VDC power supply for this device. This power supply should not share with other devices.
- Upload firmware and graphic displays by using the BACsoft or HMIkit software, connect NVT70P with USB2.0 to Mini USB cable (see Fig. 2).
- Install NVT70PE on a MS/TP network, follow RS- 485 networks general wiring rules, do not use T or star shaped configuration. Add terminal resistor at both ends of MSTP network.
- Avoid dust and condensation especially at the back of the screen to avoid product damage.
- When downloading graphics or firmware make sure the 24v power terminals are disconnected from the screen. Connect the computer to the screen using a Mini USB cable ONLY.



Installation




Dimension (mm)

Please refer to http://www.airtek.com.au for the most resent update information.