Field Operation and Control Device

LCD Group Control Panel

NVC51V

【Description】

NVC51V LCD group control panel is a field operation man-machine interface for DF series microcomputer fan coil unit controller. It has a two wire RS485 network communication capabilities, with up to 32 DFC controllers and can be connected into a community network. Users can use NVC51V to control Fan Coil Unit devices as independent or group control, for example, manual On/Off control, time schedule On/Off control, change air-conditioning mode, change fan speed, change temperature set point etc. The NVC51V can also monitor each device operation status, for example air-conditioning running status, fan speed status, present temperature status, fault and alarm condition etc.

【Features】

- Use 16 bit microprocessor, high precise operation.
- Use two-wire communication network for simple wiring connections.
- The large-scale LCD with the blue back light illumination is good for display temperature value, setting value, wind speed, air conditioning mode and abnormal state.
- Group or single operation of selectable air condition running mode (automatic, cooling, heating and fan) and selectable fan speed (automatic, high, normal and low speed) and energy conservation, comfort mode functions.
- Has group or single power off timer, useful for after hours operation.
- Includes a backup battery, holds memory storage for up to a year without power.
- Included self wakeup function (Watch Dog) when software is down.
- Key lock function to prevent unauthorized operation.

【Specification】

Model	A/C Mode	Fan speed	Comfort Running	Energy Save Running	Timer Shutdown	Schedule Turn On	Schedule Turn Off	Clock Display	Valve Action Display	Backup Battery	Decimal Scale
NVC51V	Auto/Cold/Heat/Fan	Auto/High/ Med./Low	Y	Y	0-24hr	Y	Y	Y	Y	Y	0.11

Power Supply : 5~12VDC, 35mA. (Power sources offer by DF. controller.)

Microprocessor : 16 bit high speed processor

LCD Display : 45mm*35mm display size. It has dynamic graphic display with back light.

Control Range : 15～32℃ (59～89.6℉)

Decimal Scale : Parameter selection can be 0.1 ℃, 0.5 ℃, 1 ℃ three decimal scale

Keypad : 20 operation buttons with key lock function.

SCnet Port : 2 wire MODBUS RTU standard RS-485 communication.

Environment : 0～70℃, 0～95%RH non-condensing.

【Installation】

- Read and follow the installation instruction in this document for installation to prevent danger or damage to equipment.
- Check if this product meets your application requirement.
- Installer should be a trained and an experienced technician.
- Turn off power when installation. Electric shock or equipment damage may cause serious injury.
- Please install this display panel located 1.2M above ground with good ventilation.

- For optimal control effect, it is recommended to use AWG22 two-core shielded cable with exclusive EMT shielding for transmission. Do not mix cable with other power cable.
- Connect the control panel and fan coil controller by following the pin number and wire color in Figure 1 & 2.
- When fixing the bottom plate on the wall, make sure the bottom plate is flat without twisting to prevent to the control panel.
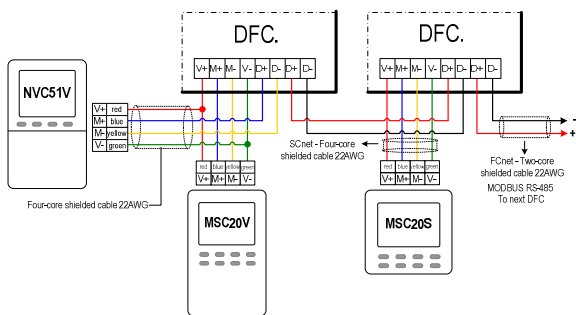
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【Wiring】

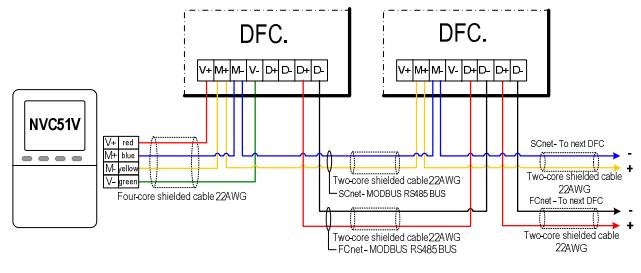**FIG. 1 NVC51V wiring diagram in the FCnet network**

FIG. 2 NVC51V wiring diagram in the SCnet network
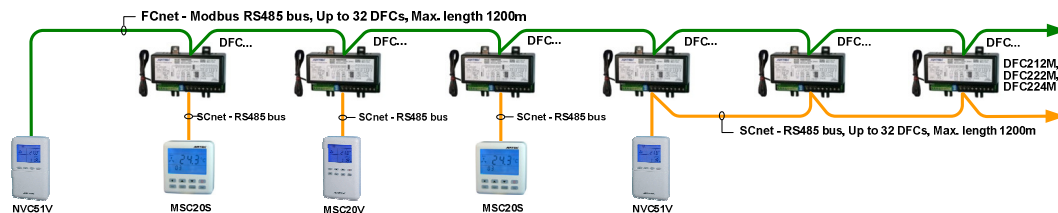
【Network】

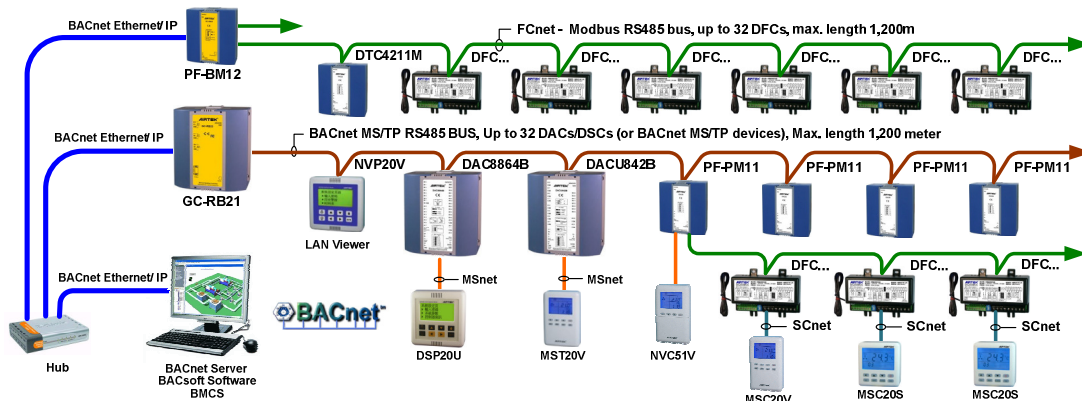**FIG. 3 Small area control network architecture diagram**

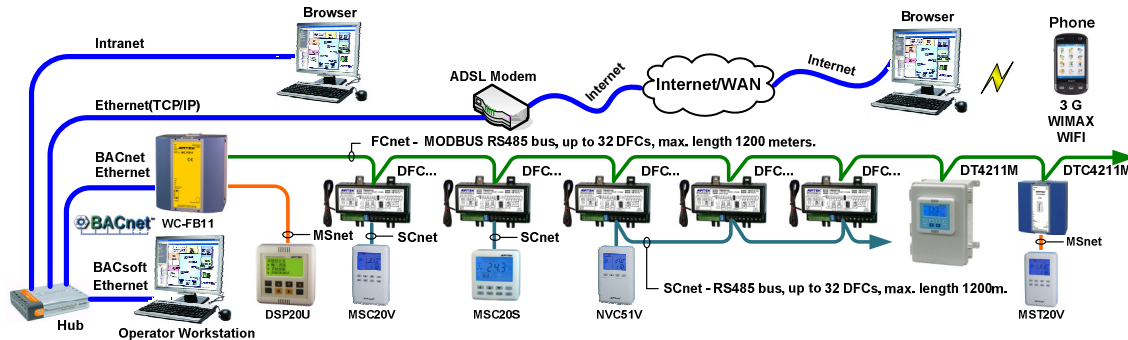**FIG. 4 Large area control network architecture diagram**

FIG. 5 Web-Based application network architecture diagram

【Dimensions】 Unit：mm

Please refer to http://www.airtek.com.au for the most recent updated information.