Field Operation and Control Device

LCD Control Panel

MSC20.

[Description]

MSC20S and MSC20V LCD control panel are a special-purpose field operation man-machine interface. It has a large-scale graphic LCD with back light. It may facilitate the user to examine, setting, change and confirm each kind of control parameter value. For example the indoor temperature value, temperature setting, air condition mode, fan speed, off timer and alarm messages.

(Features)

- 16 bit microprocessor, high precise operation.
- Two-wire communication network, Easy for wiring.
- Large-scale LCD is good for display temperature value, setting value, fan speed, air conditioning mode and abnormal state.
- LCD with the back light illumination for night operation.
- Selectable air condition running mode: automatic, cooling, heating and fan.
- Selectable fan speed: automatic, high, medium and low speed.
- · Energy saving function, periodically start/stop for energy saving.
- Comfortable function, temperature setback while sleeping.
- Has the 0~24 hour power off timer, for override function.
- Flash memory design, maintains memory for more than ten years without power.
- Included self wakeup function (Watch Dog) when software is down.
- Key lock function to prevent unauthorized operation.





MSC20S

[Specification]

Model	A/C Mode	Fan speed	Comfort Running	Energy Save Running	Clock Display	Valve Action Display	Timer Shutdown
MSC20S	Auto/Cool/Heat/Fan	Auto/High/ Med./Low	Y	Υ	Υ	Y*	0-24hr
MSC20V	Auto/Cool/Heat/Fan	Auto/High/ Med./Low	Y	Y	Y	Y*	0-24hr

Note: Above control panel must be connect to group control panel or central control computer then has the clock display function.

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

Microprocessor: 16 bit high speed processor.

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

Control Range : $15\sim32^{\circ}\text{C}$ ($59\sim89.6^{\circ}\text{F}$)

Decimal Scale: Parameter selection can be $0.1 \,^{\circ}\text{C}$, $0.5 \,^{\circ}\text{C}$, $1 \,^{\circ}\text{C}$ three decimal scale.

Keypad: 8 operation buttons with key lock function.

SCnet Port : 2-wire MODBUS RTU RS-485 bus, communication speed 9,600 bps, max. transmission distance 100 meters.

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

Relative Products (detailed specification please refer to relative specification)

DFC... M Networking Fan Coil Unit controller - Special designed for small fan coil to do temperature and fan speed control.



[Installation]

- Read and follow the installation instruction in this document for installation to prevent danger or damage.
- Check if this product meets your application requirement.
- Installer should be a trained and an experienced technician.
- Turn off power when installing. 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 piping for transmission. Do not share the pipe with other power cable.
- Connect the control panel and fan coil controller by follow the pin number and wire color in Figure 1 & 2.
- After completing the wiring, fixe the bottom plate on the wall, the bottom plate should be flat without twist to prevent the control panel damage.

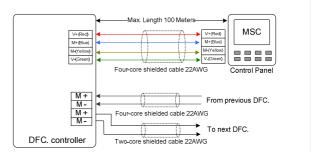


FIG. 1 MSC and DFC. Wiring diagram

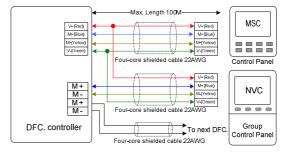


FIG. 2 MSC - NVC and DFC. Wiring diagram

[Network Architecture]

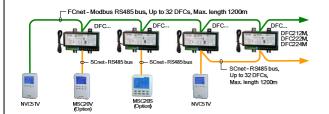


FIG. 3 Small area control network architecture diagram

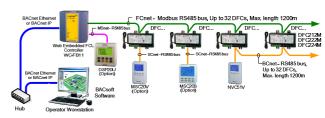


FIG. 4 Large area control network architecture diagram

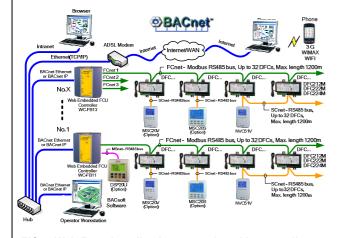


FIG. 5 Web-Based application network architecture diagram

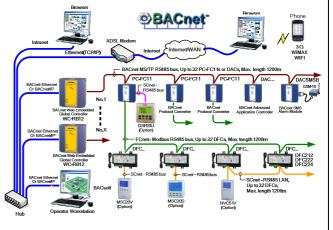


FIG. 6 Integration with BMCS network architecture diagram

[Dimensions] unit: mm

