



azbil QY7205C3001 Neopanel Digital User Terminal Instruction Manual

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azbil QY7205C3001 Neopanel Digital User Terminal



Product Information

The Neopanel Model QY7205 is a digital user terminal designed for use with Inflex Series Controllers such as Inflex FC (Fan Coil Unit) Controller, Inflex VC (Variable Air Volume) Controller, and Inflex AC (Air Handling Unit) Controller. It features ON/OFF control, temperature setting, and fan speed control of air conditioning equipment. The Neopanel has a built-in sensor and optional Thermoplate (Model QY7205Z0000) to reduce the effects of temperature measurement conditions. It is CE Marking certified, conforming to all applicable standards.

The Neopanel has several key features:

- Light-switch-plate shape/design in a selectable color to match various types of rooms (custom orders available for non-standard colors)
- High visibility LCD
- Operation time extension for overtime working hours
- Batch operation capability (single Neopanel can operate multiple controllers set as a group)
- Display of outdoor air temperature and wet weather indication when combined with Inflex ZM
- Simple wiring with modular connectors for easy installation

Safety Precautions

When using the Neopanel, please adhere to the following safety precautions:

- Do not disassemble the product to avoid electrical shock or equipment damage
- Installation and wiring must be performed by qualified personnel following applicable safety standards
- Operate the product within specified operating conditions (power, temperature, humidity, vibration, installation position, atmospheric condition) to prevent equipment damage
- Ensure the product operates within its rated operating ranges as specified in the manual to avoid equipment damage
- Comply with local codes for indoor wiring and electric installation rules
- Dispose of the product as industrial waste according to local regulations and do not reuse it

System Configuration

The Neopanel can be integrated into a system configuration as shown in Figure 1. It can connect to various controllers and sub-controllers such as Infilex AC, Infilex GC, Infilex FC, Infilex SC, and Infilex VC. Up to two Neopanel units can be connected to each controller/sub-controller. The communication protocols used are NC-bus for controllers and LC-bus for LonTalk protocol controllers.

Note that MIS (Management Integration Server) may be used instead of SMS (System Management Server) and DSS (Data Storage Server) in your system. MIS cannot be mixed with SMS and DSS in the same system.

Please refer to the provided manual for detailed instructions on system configuration, installation, and wiring.

Neopanel

Digital User Terminal for Infilex Series Controller

(Thermoplate (Auxiliary part))

General

Model QY7205 Neopanel is a digital user terminal for the controllers such as Infilex FC (FCU (fan coil unit) controller), Infilex VC (VAV (variable air volume) controller), and Infilex AC (AHU (air handling unit) controller). Neopanel has a temperature sensing element built-in and functions as a sensor and a remote controller. In addition to ON/OFF control, temperature setting, and other controls of air conditioning equipment, Neopanel shows the outdoor air temperature and the wet weather indication on its display. Besides, preset time schedule can be changed (extended) through Neopanel so that air conditioning does not stop during your overtime work in the office. Thin and flat design is adopted for Neopanel that requires a little mounting space. The built-in sensor with optional Thermoplate (Model QY7205Z0000) reduces effects of conditions in which Neopanel measures the temperature.

Features

- ON/OFF control, temperature setting and fan speed control of air conditioning equipment.
- Light-switch-plate shape/design in a selectable color to be matched up with various type of rooms. (For a non-standard color request, Neopanel needs to be custom-ordered.)
- High visibility LCD.
- Operation time extension of air conditioning for overtime working hours.
- Batch operation (single Neopanel operates multiple controllers set as a group).
- Display of the outdoor air temperature and the wet weather indication for Neopanel combined with Infilex ZM.
- Simple wiring with modular connectors for easy installation.
- CE Marking certified product: Neopanel conforms to all the applicable standards of CE Marking.



Safety Precautions

Please read instructions carefully and use the product as specified in this manual. Be sure to keep this manual nearby for quick reference.

Restrictions on Use

This product was developed, designed, and manufactured for general air conditioning use. Do not use the product in a situation where human life may be at risk or for nuclear applications in radiation controlled areas. If you wish to use the product in a radiation controlled area, please contact Azbil Corporation. Particularly when the product is used in the following applications where safety is required, implementation of fail-safe design, redundant design, regular maintenance, etc., should be considered in order to use the product safely and reliably.

- Safety devices for protecting the human body
- Start/stop control devices for transportation machines
- Aeronautical/aerospace machines

For system design, application design, instructions for use, or product applications, please contact Azbil Corporation. Azbil Corporation bears no responsibility for any result, or lack of result, deriving from the customer's use of the product.

WARNING

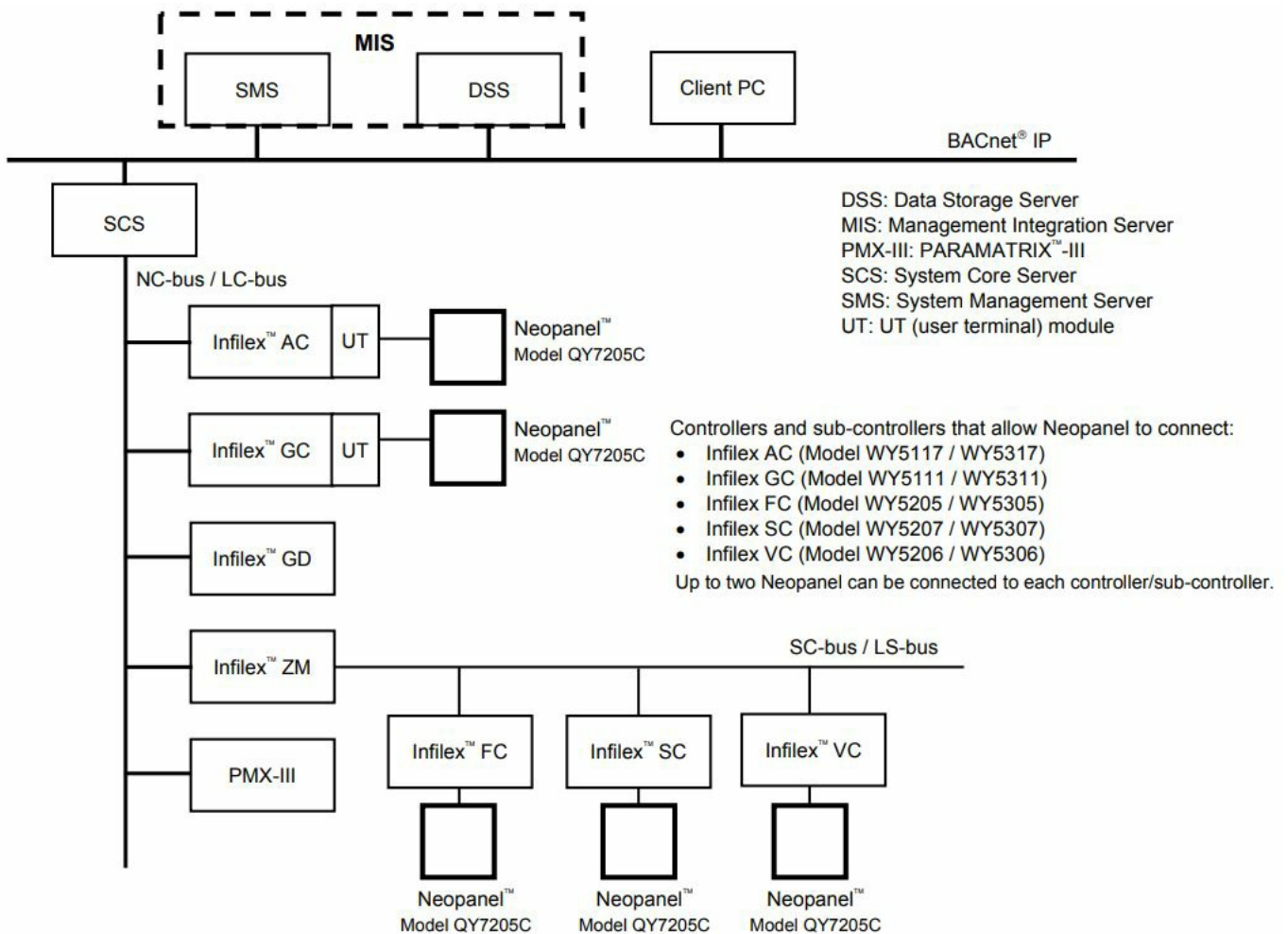
- Do not disassemble the product. Disassembly may result in electrical shock or equipment damage.

CAUTION

- Installation and wiring must be performed by qualified personnel in accordance with all applicable safety standards.
- This product must be operated under the operating conditions (power, temperature, humidity, vibration, installation position, atmospheric condition, etc) specified in this manual to prevent equipment damage.
- This product must be operated within its rated operating ranges specified in this manual. Failure to comply will cause equipment damage.
- All wiring must comply with local codes of indoor wiring and electric installation rules.

- If more than the rated power supply voltage is applied, product replacement is required for safety.
- Dispose of this product as an industrial waste in accordance with your local regulations. Do not reuse all or part of this product.

System Configuration



Notes:

- Up to two Neopanel can be connected to one applicable controller/sub-controller.
- Inflex AC/Inflex GC needs UT module to connect Neopanel.
- MIS may be used instead of SMS and DSS for your system. Note that MIS cannot be mixed with SMS and DSS in the same system.
- NC-bus is communication protocol for controllers. LC-bus is LonTalk protocol for controllers.
 - For details of NC-bus or LC-bus, refer to Specifications/Instructions of: Inflex AC, Inflex GC, Inflex GD, Inflex ZM.
- SC-bus is communication protocol for sub-controllers. LS-bus is LonTalk protocol for sub-controllers.
 - For details of SC-bus or LS-bus, refer to Specifications/Instructions of: Inflex FC, Inflex SC, Inflex VC, Inflex ZM.

Model Numbers

Neopanel

Model number				Description
QY7205				Base model number
	C			English version
		1		Single fan speed
		2		Fan speed control with one key (one key for four levels: auto→low→mid→high)
		3		Fan speed control with four keys (one key for each level: auto, low, mid, high) * Optional functions cannot be added to this model. Only 0 follows for the next digit (QY7205C30)
		0		No optional function
		1		Timer: Extends scheduled time for overtime-work hours. Functions as OFF timer when Neopanel is connected to standalone Inflex FC.
		2		Temperature indication change
		3		Temperature unit change (°C/°F)
		4		Timer + temperature indication change
		5		Timer + temperature unit change (°C/°F)
		6		Temperature indication change + temperature unit change (°C/°F)
		7		Timer + temperature indication change + temperature unit change (°C/°F)
		0		Corporate logo
		1		No corporate logo
		1		Address 1
		2		Address 2
				Off white (for standard model)
			-1	Warm white (for custom-ordered model)
			-2	Pale yellow (for custom-ordered model)
			-3	Pale pink (for custom-ordered model)
			-4	Dark brown (for custom-ordered model)
			-5	Silver (for custom-ordered model)
			-6	Dark gold (for custom-ordered model)
			-7	Dark silver (for custom-ordered model)
			-8	Pearl white (for custom-ordered model)

Note: For details of custom-ordered models, ask our sales personnel.

Thermoplate

Model number		Description
QY7205Z0000		Off-white (for standard model)
	-1	Warm white (for custom-ordered model)
	-2	Pale yellow (for custom-ordered model)
	-3	Pale pink (for custom-ordered model)
	-4	Dark brown (for custom-ordered model)
	-5	Silver (for custom-ordered model)
	-6	Dark gold (for custom-ordered model)
	-7	Dark silver (for custom-ordered model)
	-8	Pearl white (for custom-ordered model)

Note: For details of custom-ordered models, ask our sales personnel.

Specifications

Item	Specification
Power supply	8 V DC to 12 V DC (supplied from the controller)
Power consumption	0.4 W

Operating environment conditions	Temperature	0 °C to 40 °C
	Humidity	10 %RH to 75 %RH (non-condensing)
	Altitude	2000 m or lower
	Vibration	Max. 3.2 m/s ² (10 Hz to 150 Hz)
Transport/storage conditions	Temperature	-20 °C to 60 °C
	Vibration	5 %RH to 90 %RH (non-condensing)
	Humidity	Max. 3.2 m/s ² (10 Hz to 150 Hz) for storage Max. 9.8 m/s ² (10 Hz to 150 Hz) for transport
Installation	Wall-mount with 1 outlet box	
Insulation resistance	100 MW or higher at 500 V DC (between connector and main body)	
Withstand voltage	500 V AC (between connector and main body)	
Materials	Main body, mounting base, and key: ABS resin Sheet: polycarbonate	
Color	For standard model: Off white For custom-ordered model: Warm white (-1), pale yellow (-2), pale pink(-3), dark brown (-4), silver (-5), dark gold (-6), dark silver (-7), pearl white (-8) * '-' with number in () indicates suffix number of each model number.	
Weight	80 g	
Setting resolution	0.5 °C	
Setting range	15 °C to 30 °C (High/low limit setpoint can be set using the controller)	
Temperature sensing element	Thermistor	
Sensing accuracy	± 1.0 °C* ¹ (Zero adjustment can be performed using the controller)	

Operation functions	<ul style="list-style-type: none"> · ON/OFF: Combined with BMS (Building Management System), the latest operation (commanded from Neopanel or BMS center unit) takes priority. ON/OFF operation from Neopanel can be controlled by the BMS center unit. · Temperature setting: Combined with BMS, the latest operation (commanded from Neopanel or BMS center unit) takes priority. High/low limit setpoint can be set. · Fan speed control (L/M/H/AUTO): Available only for Neopanel connected to Infilex FC · Extended operation*2*3 Scheduled OFF time can be extended for overtime-work hours. · Display change Temperature indication on the display can be switched between outdoor air temperature and room temperature. · Temperature unit change Temperature unit can be switched between Celsius (°C) and Fahrenheit (°F).
Indication functions	<ul style="list-style-type: none"> · Equipment operating status (ON/OFF) · Set temperature · Fan speed (L/M/H/AUTO) *Available only for Neopanel connected to Infilex FC. · Cooling/heating status · Wet weather indication*4 ○ Outdoor air temperature*5 (requires to be custom-ordered.) ○ Room temperature*5 (requires to be custom-ordered.)
Wiring	EIA-568 compliant (Category 3 or over) f0.5 ´ 4 poles for LAN cable
Wiring length	Max. 50 m long
Wiring connection	Modular connection Plug: Model 940-SP-3088R (manufactured by Stewart Connector)*6
Transmission system	Start/stop synchronization

Notes:

1. Sensing accuracy is the accuracy of Neopanel itself. Its ambient conditions are not counted.
2. When Neopanel is connected to Infilex AC / Infilex GC / Infilex GD, extended operation can not be carried out.
3. Extended operation may not be available depending on a product and/or a system configuration with which Neopanel is combined.

4. An additional rain sensor is required for the wet weather indication. (A rain sensor cannot be directly connected to Infilex FC or Infilex VC.)
5. For displaying the full-time indication of either outdoor air temperature or room temperature, Neopanel does not require to be custom-ordered.
6. This plug is also available at Azbil Corporation. (Part No. DY7207A0100, 100 pieces/set)

Dimensions and Parts Identification

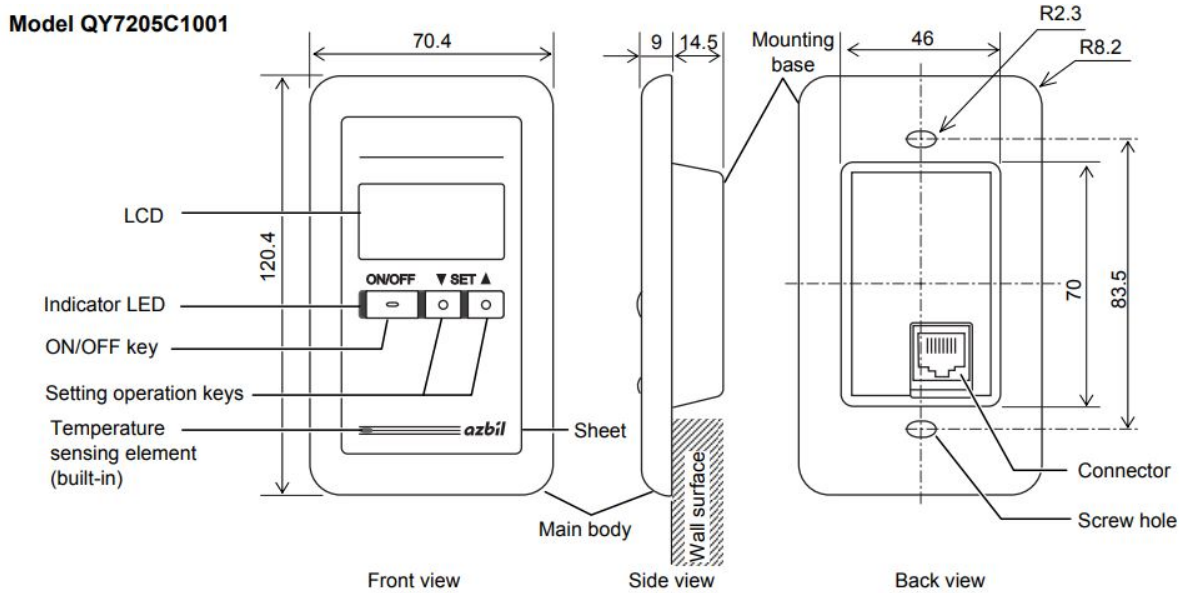


Figure 2. Model QY7205C1001

Model QY7205C2001

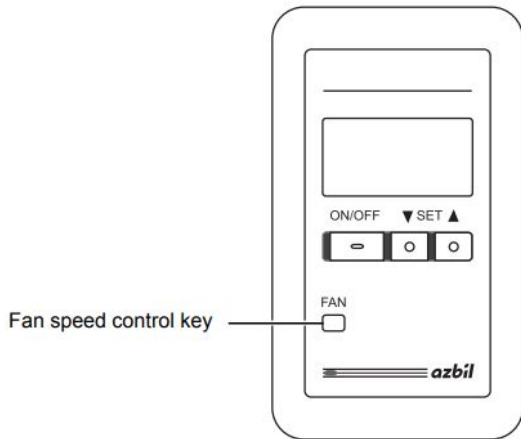


Figure 3. Model QY7205C2001 (front view)

Model QY7205C3001

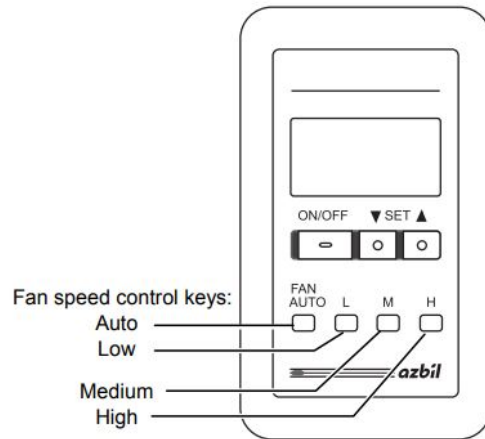


Figure 4. Model QY7205C3001 (front view)

Model QY7205C2701

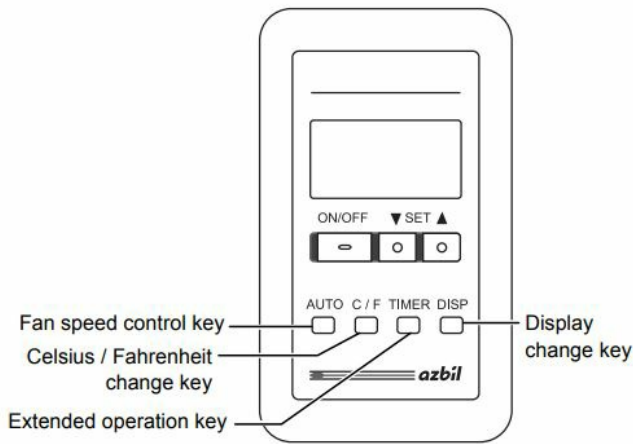


Figure 5. Model QY7205C2701 (front view)

Thermoplate Model QY7205Z0000 (Optional)

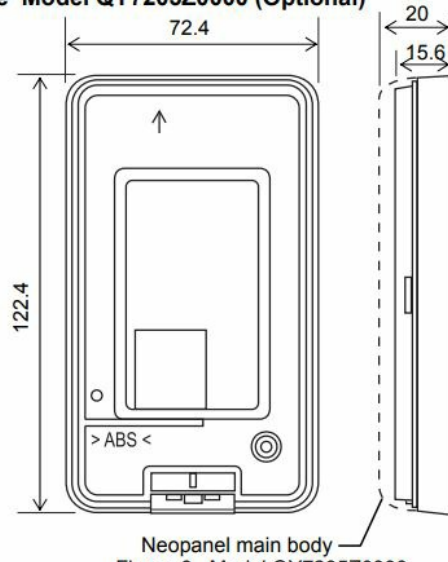


Figure 6. Model QY7205Z0000

Functional Allocation to Each Key

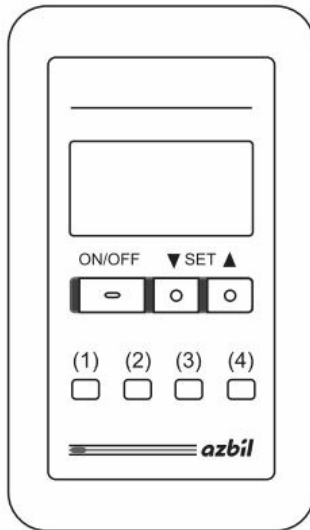
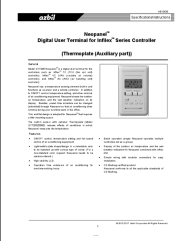


Figure 7. Keys arrangement

Model QY7205					Functions allocated to each key				Corporate logo	Address
					Key (1)	Key (2)	Key (3)	Key (4)		
C	1	0	0	1					With logo	1
	1	1	0	1	Timer					
	1	2	0	1	Display					
	1	3	0	1	°F C					
	1	4	0	1	Timer		Display			
	1	5	0	1	°F C		Timer			
	1	6	0	1	°F C		Display			

	2	7	0	2	Fan speed	° /°F	C	Timer	Display			
C	2	0	1	2	Fan speed					Without logo	2	
	2	1	1	2	Fan speed				Timer			
	2	2	1	2	Fan speed				Display			
	2	3	1	2	Fan speed				° /°F			C
	2	4	1	2	Fan speed			Timer	Display			
	2	5	1	2	Fan speed			° /°F	C			Timer
	2	6	1	2	Fan speed			° /°F	C			Display
	2	7	1	2	Fan speed	° /°F	C	Timer	Display			

Documents / Resources

	<p>azbil QY7205C3001 Neopanel Digital User Terminal [pdf] Instruction Manual QY7205C3001 Neopanel Digital User Terminal, QY7205C3001, Neopanel Digital User Terminal , Digital User Terminal, User Terminal, Terminal</p>
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