

NT11S

Function-key HMI terminal

The NT11S, the Slim, Low Cost Operation Terminal that Stands Up Well to Harsh Environments.

- Long-lived Backlight
- Simplified Ladder Programming
- Password Screens
- Conforms to NEMA4 and IP65



Main features

Withstands Water and Oil

- Use in many demanding areas even with oil and water
- The front panel of the terminal withstands water to NEMA4 and IP65 standards, which means that it can be used even in locations where it may be splashed with water or oil.

Large Keys

- For easy operation by all users
- The numeric keys and function keys have been made a generous size for your convenience. They can be operated even when wearing working gloves.

Entry of Numerical Values

The numeric key pad integrated with the display allows the entry of numerical values such as temperatures and production quantities.

Printout of Production Status

Data such as the production status and production results can be printed out, leaving a record on paper which can be used as a daily report. (The NT11S has a printer port. One screen only is printed.)

“Direct Connection” Communication

- Simplifies Ladder Programming
- The NT11S supports two communication methods: the NT link method, which substantially reduces the size of the program at the host side, and the host link direct connection method.

The “NT link” method features a particularly high response speed.

- NT link method
- SYSMAC
C200HS-CPU3□/2□
CQM1-CPU4□

- Host link direct connection method
- SYSMAC
C200HS-CPU3□/2□
C200H-LK201/-V1
CQM1 (Excludes -CPU11)

Integral Numeric Key Pad

The display, numeric keys, and function keys are all integrated into the front panel, which is convenient for designers. The key layout is ergonomically designed for ease of use.

Password Screens for Security

- To limit access to authorized persons only
- Password screens cannot be accessed unless the correct password is entered. This means that the operations that can be performed can be restricted according to the operator.

Key Titles can be Marked on the Function Key Sheet

Key titles can be marked on the function key sheet in accordance with the applications of the keys: the sheet can be taken out from the side face of the terminal. The front panel of the terminal has a water-withstanding construction.

Bar Graphs can be Displayed

Bar graph displays allow the progress of processes to be checked at a glance. (The bars are oriented horizontally.)

Display History Record Helps in Analysis of Machine Faults

When the display history record function is set as a screen attribute, the time, the screen number, and a comment are recorded in the terminal's memory every time the relevant screen is displayed. This display history can be printed by issuing a print instruction from the host, and is useful for machine fault analysis.

Screen Operations are Easy

Using the support software, screens to be displayed by the terminal can be created as easily as if using a word processing program. This software can be run on an IBM PC/AT or compatible. It contains the system program transfer tool that downloads the system program to the flash ROM.

Main functions

- Fixed displays, numeral display, character display
- Character inversion, flashing, double-width. Character copy, move, delete.
- 8 x 16 dot mark registration (max. 64 marks can be registered)
- Horizontal bar graphs
- Numeral setting
- Password

Easy to Order

Since the communication interface, image memory, and flash ROM that downloads the system program are incorporated in the NT11S body, placing orders is a simple matter.

The front panel is available in beige or black

Long-lived Backlight

Since LEDs are used for the backlight, it is very long-lived and rarely needs to be changed.

Specifications

General Specifications

Power supply voltage	24 V DC
Allowable power supply voltage range	20.4 to 26.4 V DC (24 V DC -15 %, +10 %)
Power consumption	15 W max.
Noise resistance	Common mode (between power supply and panel): 1000 Vp-p Normal mode: 300 Vp-p Pulse width: 100 ns to 1 ms Pulse rise time: 1 ns
Vibration resistance	10 to 22 Hz with 1.5 mm double amplitude in X, Y, and Z directions. 22 to 500 Hz with 1.5 G {14.7 m/s ² } acceleration for a total of 30min. in X, Y, and Z directions.
Shock resistance	20 G {196 m/s ² } 3 times each in X, Y, and Z directions.
Ambient operating temperature	0 to +50 °C
Ambient operating humidity	35 to 85 % RH (with no condensation)
Operating environment	No corrosive gases.
Storage temperature	-20 to +70 °C (with no freezing)
Enclosure ratings	Front panel: Equivalent to IP65, NEMA4
Weight	1.0 kg max.

Display/Panel Specifications

Note: In order to improve the performance of displays, liquid crystal devices may be changed without notice.

Display screen	Dot matrix of STN liquid crystal display panel - Number of dots: 160x64 - Effective display area: 100 40 mm - Life expectancy: 50,000 hours minimum - View angle (left/right direction): ±20°	Backlight - LED - Life expectancy: 10,000 hours minimum (average: 30,000 hours) - Automatic turn-off: can be set to turn off in 10 minutes or 1 hour, or to remain on.
Indicators	- POWER indicator (Green LED): Lit while power is being supplied. - RUN indicator (Green LED): Lit during operation	
Switch	- 22 switches - Life expectancy: 1 million operations minimum	

Display Capacity

Note: Note: In order to improve the performance of displays, liquid crystal devices may be changed without notice.

Display characters	Normal characters (8 16 dots): Alphanumerics and symbols Marks (8 16 dots): User-defined, 64 max.	
Number of characters	displayed Normal-size: 20 horizontally 4 lines vertically max.	
Enlargement function	Double width	
Display elements	Character string displays	8 positions per screen
	Numeral displays	8 positions per screen
	Graph displays	4 positions per screen
	Numeral settings	8 positions per screen
Screen attributes	Display history	Order of frequency, 256 screens
	Password screen	Ensures security: screens for which this attribute is set can only be displayed if the correct password is input.
	Menu screen	Four items per screen
Screen types	Normal screen: Displays screen registered as normal.	
Max. number of registered screens	250	
Screen registration method	Transfer screen data created using an IBM PC/AT personal computer to the PT.	
Screen saving method	Saved to flash memory: 32KB (downloading method)	

Special Features

Printing function	Printing of display history data Printing of daily reports (printing format registered by the users)
Maintenance functions	Self-test for memory, switches, etc. Status setting confirmation for communications and other conditions. Simple communications confirmation

Ordering Information

Product	Specification	Model	
Programmable Terminal	Host link direct connection,	Ten-key type (frame color: beige)	NT11S-SF121
	NT link method	Ten-key type (frame color: black)	NT11S-SF121B
Support Software	3.5" FD (for IBM PC/AT)	NT11S-ZA3AT-EV1	

Dimensions

