

Powerful and Compact Alphanumeric Operator Interface

- High visibility LED backlit LCD display shows 2 lines of 16 characters
- Choose programmable or message display models
- Compact, fits 1/8 DIN panel cutout
- Six programmable function keys
- Two programmable LED indicators
- Powered by peripheral port or 24 VDC power supply
- Password protect any function key
- Bar graph display
- cCSAus and CE approvals
- IP65 protection rating
- Programming software included at no cost



Ordering Information

| Item | Part number |
|------------------------------------------------------------------|---------------|
| 2 x 16 character LCD text, 6 function key, RTC, 24 VDC | NT2S-SF121B-E |
| 2 x 16 character LCD text, 6 function key, 5 VDC | NT2S-SF122B-E |
| 2 x 16 character LCD text message display, 6 function key, 5 VDC | NT2S-SF123B-E |
| 9-pin to peripheral port cable, 2 m for SF121 model | NT2S-CN212 |
| 9-pin to peripheral port cable, 5 m for SF121 model | NT2S-CN215 |
| 9-pin to peripheral port cable, 2 m for SF122 and SF123 models | NT2S-CN222 |
| 9-pin to peripheral port cable, 5 m for SF122 and SF123 models | NT2S-CN225 |

Specifications

■ FEATURES

| Features | Description | NT2S-SF121B-E | NT2S-SF122B-E | NT2S-SF123B-E |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|
| Programming package | Windows® Software Package - NT2ST | Yes | Yes | Not programmable |
| ASCII controlled messages | ASCII in PLC registers is displayed on the NT2S screen. Pointer in PLC memory tells NT2S which register to display. Pointers placed in that PLC register point to data value to be displayed. | No | No | Yes |
| Multi-vendor support | Omron, Allen-Bradley Micrologix and SLC 5/0x, GE Micro, Modicon, Keyence KV Series, Toshiba T Series, Koyo 305, 405, and DL205 Series | Yes | No | No |
| Memory | Type EEPROM | 8 K | 8 K | 8 K |
| Power | 24 VDC terminals or PLC peripheral port 5 VDC | 24 VDC | 5 VDC | 5 VDC |
| Enclosure ratings | IP65 | Yes | Yes | Yes |
| Standards | CE, cCSAus | Yes | Yes | Yes |
| Ambient operating rating | 0 to 50°C | Yes | Yes | Yes |
| Storage temperature | -20°C to 60°C | Yes | Yes | Yes |
| Ambient operating humidity | 35% to 85% with no condensation | Yes | Yes | Yes |
| Ambient operating environment | No corrosive gases | Yes | Yes | Yes |
| Weight | 400 g | Yes | Yes | Yes |
| Panel fitting | 2 clamps | Yes | Yes | Yes |
| Face dimensions mm (inch) | Dimensions of NT2S front bezel | 109W x 60H (4.29 x 2.36) | 109W x 60H (4.29 x 2.36) | 109W x 60H (4.29 x 2.36) |
| Rear unit dimensions mm (inch) | Dimensions of portion of NT2S that enters panel | 91W x 44H x 44D (3.58 x 1.73 x 1.73) | 91W x 44H x 44D (3.58 x 1.73 x 1.73) | 91W x 44H x 28D (3.58 x 1.73 x 1.10) |
| Panel cutout mm (inch) | Recommended panel cutout dimensions: 1/8 DIN | 92W x 45H (3.62 x 1.77) | 92W x 45H (3.62 x 1.77) | 92W x 45H (3.62 x 1.77) |

■ DISPLAY

| Features | Description | NT2S-SF121B-E | NT2S-SF122B-E | NT2S-SF123B-E |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|
| Display | Lines * characters | 2 * 16 | 2 * 16 | 2 * 16 |
| Character height | mm (inch) | 4.35 (0.17) | 4.35 (0.17) | 4.35 (0.17) |
| Backlit | LED backlight | Yes | Yes | Yes |
| Effective display area | mm (inch) | 60 x 13 (2.36 x 0.51) | 60 x 13 (2.36 x 0.51) | 60 x 13 (2.36 x 0.51) |
| Indicators | Red and green LED indicators | Yes | Yes | Yes |
| Number of screens | Max. number of screens if only text messages are used. Adding function keys, scrolling messages, etc. decreases the maximum number of screens. | 250 | 250 | NA |
| Data format | HEX, BCD, OCT, BIN, signed, unsigned | Yes | Yes | Controlled by PLC |

■ FUNCTION KEYS

| Features | Description | NT2S-SF121B-E | NT2S-SF122B-E | NT2S-SF123B-E |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|------------------|
| Available function keys | Number of user programmable function keys | 6 | 6 | 6 fixed function |
| Global function key program | Function key can be programmed for global functions. Key program is effective throughout the NT2S program. | Yes | Yes | NA |
| Local function key program | Function key can be programmed uniquely for each screen. | Yes | Yes | NA |
| Function key binary action | Momentary, toggle on, toggle off, set on, set off | Yes | Yes | NA |
| Function key numeric action | Set constant value, increment, or decrement by a constant value to PLC register. | Yes | Yes | NA |
| Numeric entry | Special screen uses arrow, clear, and enter keys to input numeric values to PLC register. | Yes | Yes | Yes |
| Function key screen | Global function key actions can be linked to a function key screen that displays upon activation of that function key. This can be used to confirm function key. | Yes | Yes | NA |
| Password protect any key | Password can be activated for any function key. | Yes | Yes | NA |

■ COMMUNICATIONS

| Features | Description | NT2S-SF121B-E | NT2S-SF122B-E | NT2S-SF123B-E |
|------------|-----------------------------|---------------------------------------|------------------------------|----------------------------|
| COM port 1 | Programming & Printing port | DB9 connector RS-232 Port | DB9 connector RS-232 Port | NA |
| COM port 2 | Host PLC communications | DB9 connector CMOS/ RS-232 port | DB9 connector CMOS port | DB9 connector CMOS port |

■ SPECIAL FUNCTIONS

| Features | Description | NT2S-SF121B-E | NT2S-SF122B-E | NT2S-SF123B-E |
|-----------------------|-------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| Real time clock | 2-digit year, month, date, hour, minute, second | Yes | NA | NA |
| 2 user definable LEDs | Red and green LED can be controlled from PLC | Yes | Yes | Yes |
| Scrolling messages | Scroll messages up to 256 characters | Yes | Yes | NA |
| Flashing display | Specify for backlight to flash | Yes | Yes | NA |
| Minimum display time | Define minimum display time for a screen | Yes | Yes | NA |
| Screen chaining | Chained screens will display in sequential fashion, each displaying for the set minimum display time. | Yes | Yes | NA |
| Link screen | Create a list of screens that can be navigated using the NEXT (F1) and PREVIOUS (F2) keys. | Yes | Yes | NA |
| Bar graph display | Display numeric values as a bar graph | Yes | Yes | Yes |

■ PRINT FUNCTIONS

| Features | Description | NT2S-SF121B-E | NT2S-SF122B-E | NT2S-SF123B-E |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|---------------|
| Print screen | Configure serial communications port to communicate with a printer. Print screen text and displayed PLC data values can be printed. | Yes | Yes | No |

Operations

■ NT2S-SF121B-E

Key Features

- Unit programmed with Windows®-based software included with each unit at no charge
- 24 VDC from external power supply
- Real time clock — year, month, date, hour, minute and second sent to specified PLC registers
- Supports Omron PLCs
- Supported multi-vendor PLCs
 - Omron Host Link
 - Allen-Bradley Micrologix and SLC 5/0X (DF1)
 - GE Micro
 - Modicon (Modbus Master)
 - Keyence KV Series
 - Toshiba T Series
 - Koyo 305, 405 and DL205 Series

■ NT2S-SF122B-E

Key Features

- Unit programmed with Windows®-based software included with each unit at no charge
- 5 VDC power supplied by PLC peripheral port
- For use with Omron PLCs

■ NT2S-SF123B-E

Key Features

This is not a typical message display. The NT2S-SF123B-E is a message display with function keys that provide data entry and screen changing capability. The unit displays ASCII characters that are stored in PLC registers. The displayed data register is controlled by a command register which specifies the register number to be viewed. PLC registers can be programmed to display text or numeric values from other PLC memory locations using pointers. Numeric values displayed on screen can be modified by entering the DATA mode and using the up and down arrow function keys.

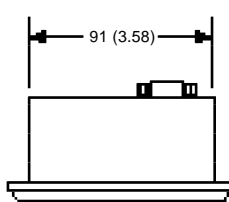
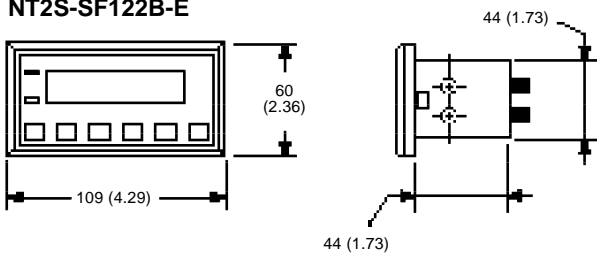
- 5 VDC power supplied by PLC peripheral port
- Supports all Omron PLCs
- Preset function keys allow navigation through PLC registers, selection of data for modifications and entry of new values

Dimensions

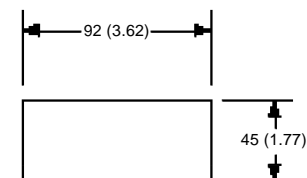
Unit: mm (inch)

■ OPERATOR INTERFACES

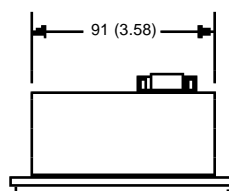
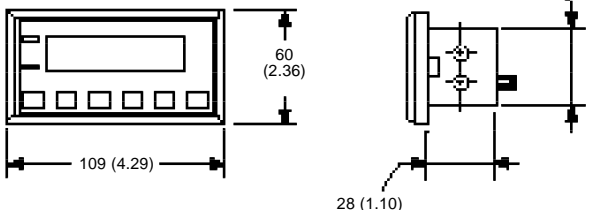
NT2S-SF121B-E
NT2S-SF122B-E



Panel cutout 1/8 DIN



NT2S-SF123B-E



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