



S Expansion Modules

E Basic I/O

The NBT I/O Expansion Modules provide point expansion capability to the basic internal I/O capability of the NBT SM805™ (RA-PLC). This expansion can include up to 120 additional points in modular increments.

Available Basic I/O modules are:

- ◆ Digital Input Module (8 points)
- ◆ Digital Output Module (8 points)
- ◆ Analog Input Module (8 points)
- ◆ Analog Output Module (4 points)

The first expansion module connects directly to the SM805 with a 26 pin ribbon cable. Subsequent modules are successively daisy chained from the first, also with 26 pin ribbon cables.

A total of 15 expansion modules may be connected on the expansion bus, each individually addressable via jumpers.



Expansion Modules (I/O shown)

High Speed Counter

The NBT High Speed Counter Module provides both pulse count totals and pulse rate registers for 4 inputs. The remaining 4 registers are standard digital inputs. The maximum pulse rate is 2 KHz.

High Speed Change Detect

The high speed change detect insures capture of very short duration pulses for alarming purposes. The module can be configured to capture OFF-ON transitions, ON-OFF transitions, or both. Eight points are available per module.

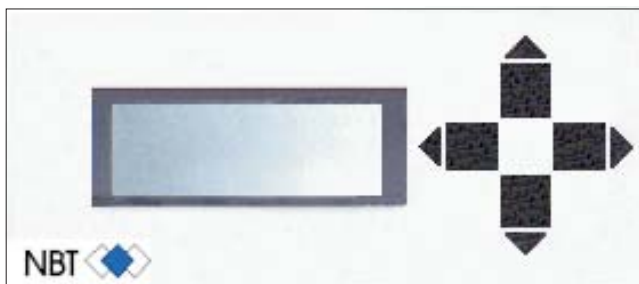
Common Module Specifications
(Individual specifications on back)

- ◆ **Terminations:** 18 position pluggable terminal strip, suitable for 14 AWG wiring.
- ◆ **Isolation/Protection:** Optical isolation plus SWC (surge withstand capability) transient protection.
- ◆ **Field Side Power (optional):** Isolated 12-24 VDC power supply (less than 30 mA).
- ◆ **Bus Connection:** 26-pin ribbon cable connector to SM805.
- ◆ **Addressing:** Jumper selectable, address range of 1-15.
- ◆ **Physical size:**
5.5 in.(h) x 1.5 in.(w) x 3.5 in.(D)
(139.7 mm x 38.1 mm x 88.9 mm)

Rear panel mounting bracket increases depth by 0.625 in. (15.9 mm). Bracket is 7.0 in. (177.8 mm) high with an upper and lower mounting slots (0.187 in. wide) spaced 6.38 in. (162 mm) apart.
- ◆ **Mounting:** Panel mounting with rear bracket (dimensions of bracket noted above).
- ◆ **Case Construction:** Extruded aluminum base with clad steel cover.
- ◆ **Operating Temperature:** -20° C to +70° C (-4° F to 158° F).
- ◆ **Relative Humidity:** 0-95 percent, noncondensing.

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SM805 Display / Operator Interface



The display module is an easy to use operator interface for the SM805 that can display configured points and parameters (see below). *No additional programming required.* It can also be used in a BASIC program mode where text messages are displayed under program control. Display selection and data entry (which can be protected by key lock or other methods) are accomplished via four arrow keys next to the LCD display.

The module is panel mountable (3" x 7") and has an LCD display of 4 x 20 characters. Up to two display modules may be connected to each SM805.

Analog Display Fields:	Name	Curr.Value	Max.	Min.	Hi Lim.	Lo Lim.
Digital Display Fields:	Name	Curr.Value	Cycles	Run Time	-----	-----

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