

B3000-B Serial Brain

Features

- Drop-in replacement for the B3000 *mistic* serial brain
- Connects to a SNAP-PAC-S1 or S2 controller
- Can be migrated to PAC Project
- Supports the *mistic* serial protocol
- Supports four-channel digital modules in rack positions 0-7
- Supports one- and two-channel analog modules in all rack module positions
- Compatible with SNAP B-series mounting racks

Description

The B3000-B is a *mistic* serial brain designed as a modern drop-in replacement for the B3000. The B3000-B has the same functionality as the B3000, except that it does not support the Optomux protocol. Customers requiring an Optomux brain should use Opto 22's E1 or E2 brain.

The B3000-B can be connected to a SNAP PAC S-series controller, and it can be migrated with other *mistic* I/O units to PAC Project. However, if you are building a new SNAP PAC system with distributed I/O, you should use the SNAP-PAC-SB1 and SB2 serial brains instead of the B3000-B. The B3000-B can also be used with legacy OptoControl controllers.



For more detailed information on the B3000-B serial brain, see form 1781, the *B3000-B Serial Brain User's Guide*.

For more information on the SNAP PAC SB-series brains, see form 1690, the *SNAP PAC Brains User's Guide*.

For more information on the earlier B3000 serial brain, see form 0787, the *SNAP Analog/Digital Mistic/Optomux Brain Data Sheet*.

Also see the following *mistic* documents:

- *Mistic Protocol User's Guide*, form 0270
- *Misticware Manual*, form 0522
- *Mistic 200 Installation Guide*, form 0595

Part Numbers

Part	Description
B3000-B	<i>mistic</i> serial brain designed as a modern drop-in replacement for the B3000

Specifications

Power Requirements	5.0–5.2 VDC at 750 mA maximum (does not include module power requirements)
Operating Temperature	0 to 60 °C
Storage Temperature	-40 to 85 °C
Humidity	0–95% humidity, non-condensing
Communications Interface	RS-485, 2- or 4-wire, twisted pair(s), with shield
Data Rates	300 baud to 230.4 Kbaud
Range: Multidrop	32 stations maximum between repeaters; up to 3000 ft (914 m) between repeaters
LED indicators	SERIAL (transmit/receive), STAT (brain status), IRQ (interrupt)
Options: Switch Selectable	Address Baud rate Binary/ASCII CRC/Checksum

Mistic Functions

Digital	Analog
Input latching (10 µsec)	PID loop control
Timing (1 msec resolution)	High/Low limit monitoring
Counting (32 bit)	Thermocouple linearization
Totalizing	Digital filtering
Output timing (1 msec resolution)	Ramping
Pulse generation (1 msec resolution)	Waveform generation
Time proportional output (100 msec minimum period)	Programmable offset and gain
Frequency measurement (up to 20 KHz)	Engineering unit scaling
Event reactions	Square root extraction
Pulse measurement	Event reactions
Period measurement	

Notes:

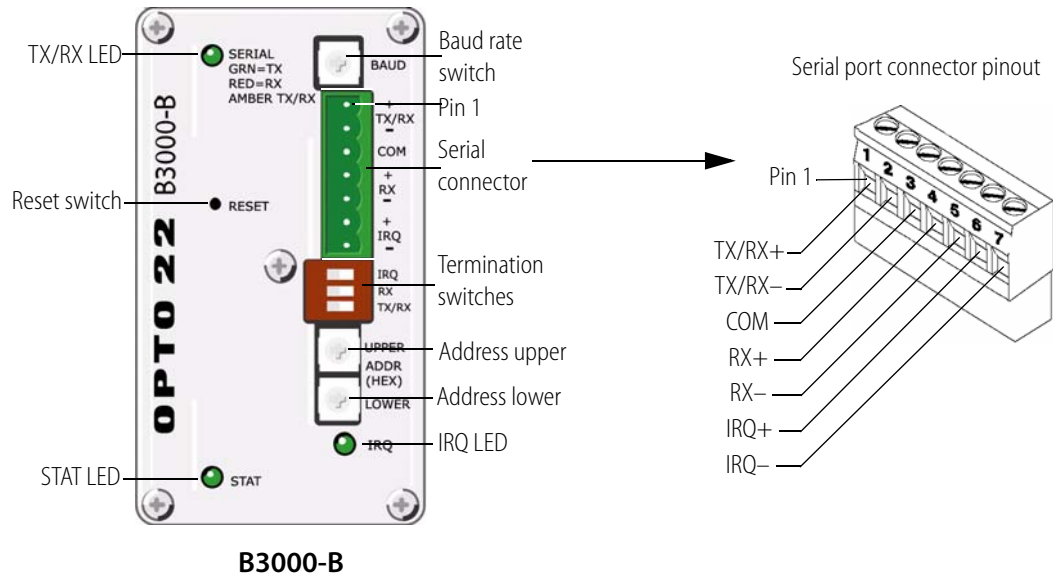
1. PID loops do not cross address boundaries.
2. PID loops can only be configured on analog addresses.
There is a maximum of 8 PID loops per analog address.
3. Event reactions do not cross address boundaries.

B3000-B Serial Brain

LEDs, Switches, and Serial Connector

The LEDs on the top of a B3000-B brain indicate status conditions. For example, the STAT LED blink codes provide useful information during operation and in troubleshooting.

The faceplate's switches allow you to configure the brain's baud rate, termination, and address.



Comparison of Dimensions

The B3000-B is 0.66 inches (16.64 mm) taller than the B3000.

