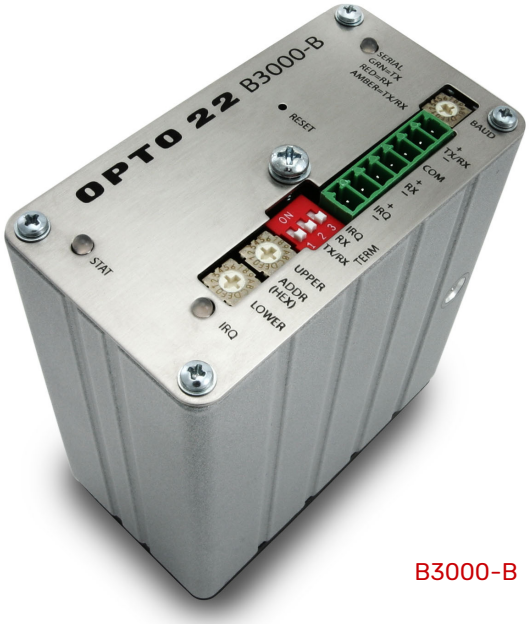
B3000-B BRAINS

Features

- Drop-in replacements for the B3000 *mistic* serial brain
- Compatible with SNAP B-series mounting racks
- Supports four-channel digital modules in rack positions 0-7
- Supports one- and two-channel analog modules in all rack module positions
- Choose from models for *mistic* or Optomux protocols



B3000-B

DESCRIPTION

B3000-B brains are serial brains designed as a drop-in replacement for the obsolete B3000. Two models are available:

- Choose the **B3000-B** if you are replacing a B3000 that uses the *mistic* protocol. This model is compatible with FactoryFloor controllers running OptoControl strategies and SNAP B-series mounting racks. The B3000-B has the same functionality as the B3000 but supports *mistic* only.
- Choose the **B3000-B-OMUX** if you are replacing a B3000 that uses the Optomux protocol. This model is compatible with SNAP B-series mounting racks and contains firmware suited for an Optomux system.

From a hardware standpoint the two models are identical, but they contain different firmware. The B3000-B-OMUX has a sticker on its side that identifies its part number. Make sure to order the correct part number for your application.

For more detailed information on the both models, see form 1781, the *B3000-B Serial 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*.

Notes on Migration

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

Part Numbers

Part	Description
B3000-B	*mistic* serial brain designed as a modern drop-in replacement for the B3000
B3000-B-OMUX	Optomux serial brain designed as a modern drop-in replacement for the B3000

SPECIFICATIONS: B3000-B AND B3000-B-OMUX

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
Agency Approvals	CE, DFARS, UKCA

Notes:

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

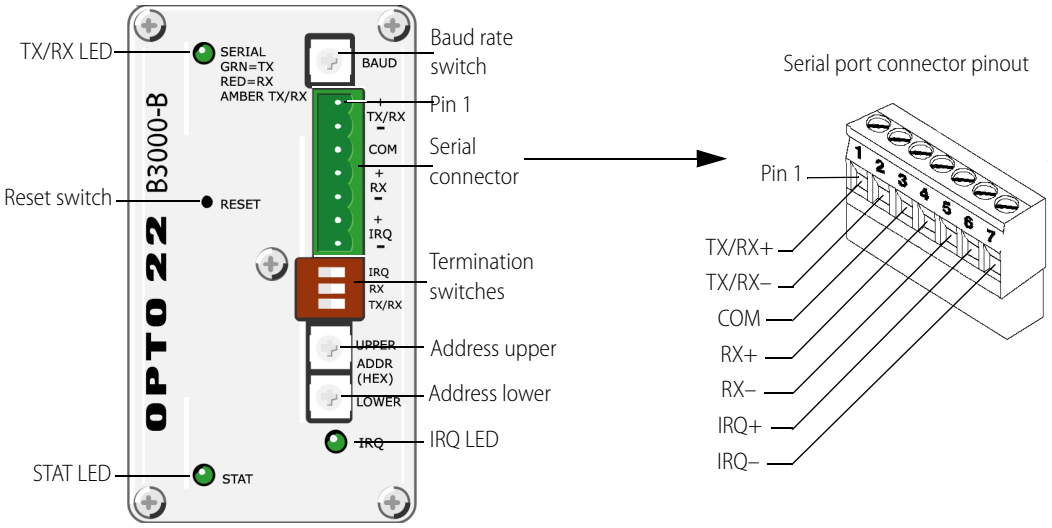
mistic Functions

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	

LEDS, SWITCHES, AND SERIAL CONNECTOR

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

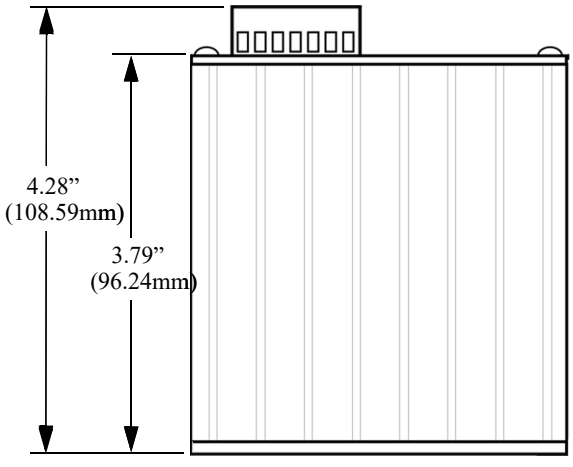
The faceplate's switches allow you to configure the brain's baud rate, termination, and address.



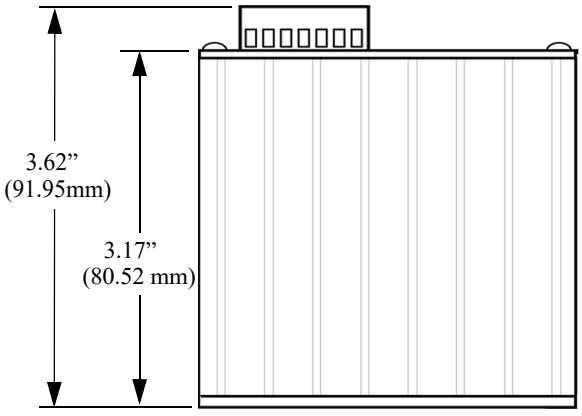
B3000-B

COMPARISON OF DIMENSIONS

B3000-B brains are 0.66 inches (16.64 mm) taller than the B3000.



B3000-B



B3000