PRODUCT BULLETIN SB 8540-1832

Type 8540-1832 8540-1841

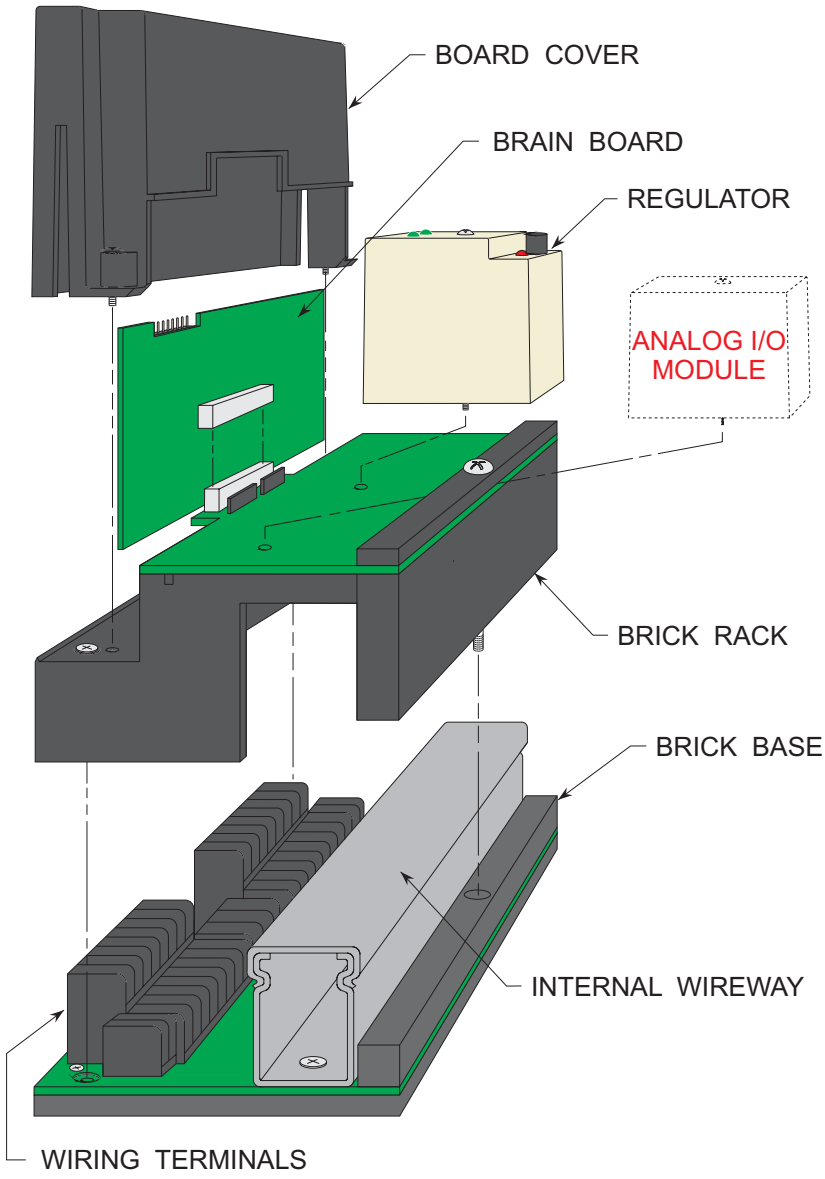
IMACS MISTIC ANALOG BRICK

LOCAL ANALOG BRICK 8540-1832
LOCAL ANALOG EXTENDER 8540-1833
REMOTE ANALOG BRICK 8540-1841
REMOTE ANALOG EXTENDER 8540-1842

The IMACS 8540-1832/1841 are high performance analog I/O bricks. They provide intelligent and flexible single point I/O control in a rugged, compact package. Onboard brick intelligence offers PID loop control, HI/LO limit monitoring, thermocouple linearization, event / reaction and many other control functions. Event / reactions direct orderly shutdowns and execute high speed deterministic responses to sophisticated control sequences, alarm monitors, diagnostics and host interrupts.

Analog bricks are available for high speed parallel local, or high speed serial remote communication.

Each I/O module is optically and electrically isolated from each other, isolated from the power supply and isolated from the brain board.



FEATURES

- PID loop control, filtering, HI/LO limit monitoring, offset / gain, thermocouple linearization, averaging, input totalization, ramp / waveform generation, etc.
- Built in diagnostics
- Host interrupt capability
- Communications link watchdog timer
- On board EEPROM for system configuration
- Channel to channel optically and electrically isolation
- CE mark

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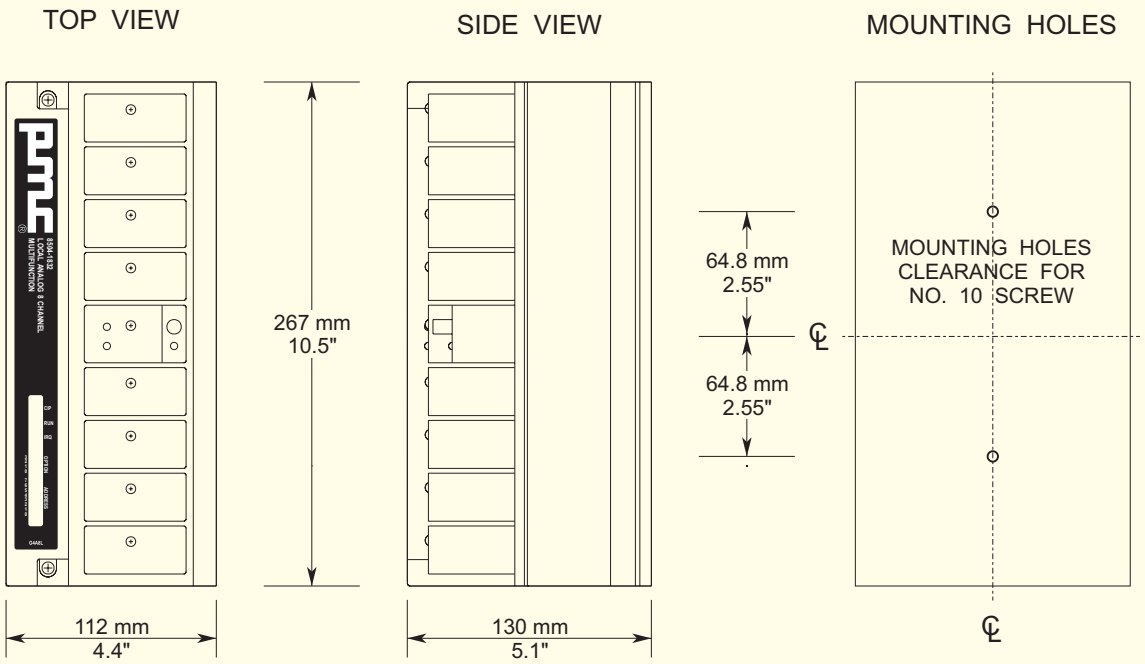
DIMENSIONS FOR 8540-1832/1833/1841/1842 MISTIC ANALOG BRICK



SCALE 1 : 4

SPECIFICATIONS:

Supply:

- Nominal 24 V_{DC}
- Loaded brick, typical 1 A (1.2 A Terminated brick)
- PMC Type 8510-1005 power supply required

Environmental:

- Operating temperature 0 to +70°C
- Storage temperature -40 to +85°C
- Vibration: Frequency range 3 to 100 Hz
  Velocity amplitude 100 mm/sec below 22 Hz
  Acceleration amplitude 0.7 g above 22 Hz

Physical:

- Dimensions:
  267 mm L × 112 mm W × 130 mm H
  (10.5" L × 4.4" W × 5.1" H)
- Loaded weight, typical 2.2 kg (4.85 lbs)

Communication:

- Local Bus:
  Bus speed, 1.4 Mbps
  Cable type, 34 conductor ribbon
  Cable length, max 200 ft total
- Remote Bus:
  Bus speed, 300 to 115.2 KBd
  Cable type, 3 wire, twisted pair + GND, interrupt uses 2nd wire pair
  Cable length, max 3000 ft (more with repeaters)

Hardware:

- CPU, 80C196 16-bit microprocessor, 12 MHz
- Typical I/O times (including communication transfer time)
  Read 16 channels
  Local bus 1.03 ms
  Remote bus 5.53 ms
  Write 16 channels
  Local bus 2.48 ms
  Remote bus 6.52 ms
- I/O update rate
  Input, 7 ms
  Output, 50 ms
- PID scan rate, 100 ms for all 8 PID's (4 PID loops/brick. Up to 8 PID with brick extender option)
- Typical event / reaction time (16 events / reactions), 4 ms
- Isolation
  Input to output, 4000 V_{RMS}
  Output to analog supply, 4000 V_{RMS}
- Extender option
  Adds 8 additional analog I/O channels on a separate brick unit

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