



Type 8540-1830 8540-1840

The IMACS 8540-1830/1840 are high performance digital I/O bricks. They provide intelligent and flexible single point I/O control for up to 16 digital I/O modules in a rugged, compact package. Onboard brick intelligence offers latching, pulse train generation, time delays, counting, 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.

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

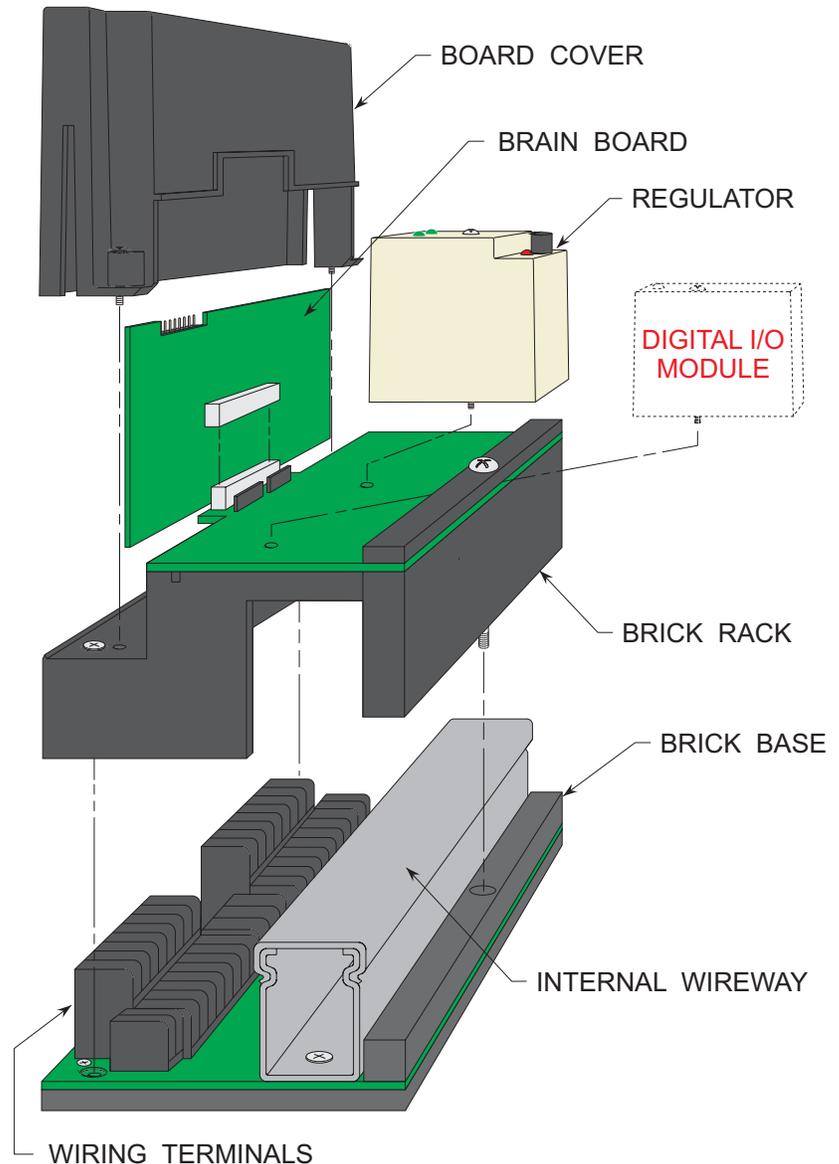
Each I/O module is optically and electrically isolated from each other, isolated from the power supply and isolated from the brain board.

FEATURES

- Input latching / timing / counting / totalizing
- Output timing, pulse / waveform generation and timed proportional output
- 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

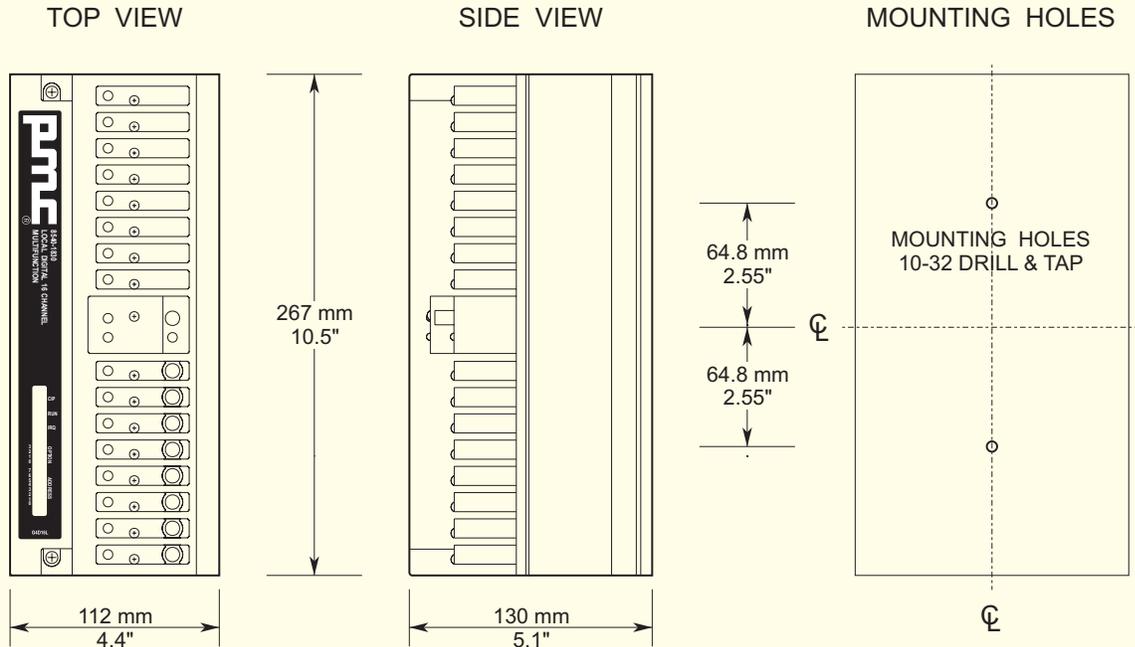
IMACS MISTIC DIGITAL BRICK

LOCAL DIGITAL 8540-1830
REMOTE DIGITAL 8540-1840



PRIME MOVER CONTROLS INC.

DIMENSIONS FOR 8540-1830/1840 MISTIC DIGITAL BRICK



SCALE 1 : 4

SPECIFICATIONS:

Supply:

- Nominal 24 V_{DC}
- Local brick, 450 mA (500 mA Terminated brick)
- Remote brick, 350 mA (450 mA 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)
- Weight, 1.8 kg (4.0 lbs)
- 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 0.68 ms
Remote bus 1.76 ms
Write 16 channels
Local bus 1.0 ms
Remote bus 2.27 ms
- Counters (frequency measure)
Max rate, 20 KHz
Data size, 32 bit
Min pulse width ON, 10 μs
Min pulse width OFF, 10 μs
- Latching (min pulse width), 10 μs
- Output pulse
Max continuous rate, 500 Hz
Min pulse width ON, 1ms
Min pulse width OFF, 1ms
- Typical event / reaction time (16 events / reactions), 4 ms

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