

MPB OPTO RACKS

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DESCRIPTION

The MPB-08, MPB-16, and MPB-24 are miniature racks designed to accommodate 8, 16, or 24 G4 I/O modules. These racks perform the same as industry standard opto-isolated module racks, except the size is substantially smaller to accommodate applications where space is restricted.

INSTALLATION

Connecting to a Controller

All three racks have a 26-position connector, J2, that directly interfaces to Octagon CPU cards using a CMA-26 ribbon cable. To install your cable, insert one end of the CMA-26 cable into J2 on the MPB rack. Insert the other end of the cable into the parallel I/O port on your CPU card.

MPB racks also include a 50-position connector, J1, that is designed to interface to controller cards that use the G4 OPTO standard. This connector requires a 50-pin ribbon cable that inserts into J1 on the MPB rack on one end and into your controller card on the other end.

Applying Power

Power and ground connections are provided through the following connectors on the MPB racks.

| | |
|---------|-----|
| MPB-08: | P8 |
| MPB-16: | P16 |
| MPB-24: | P24 |

These connectors are screw type terminal blocks and accept 12-22 gauge wires.

Installing the Fuse

All MPB racks come with a spare fuse. As shipped, this fuse is located in the "Spare" fuse location on the MPB printed circuit board.

To install and test the fuse, remove the fuse from the spare location and insert into F1 (fuse tester). Apply power to the MPB rack. If the fuse is working properly, LED CR1 will illuminate.

Installing I/O Modules

MPB racks accommodate standard Opto 22, G4 I/O modules. To install I/O modules, align the pegs on the modules with the holes in the MPB rack and insert. Anchor modules to the rack by tightening the screw at the top of the module.

Connecting External Devices

Screw terminal blocks are provided on MPB racks to accommodate field wiring. These connectors accept 12–22 gauge wires. Refer to your I/O module data sheet for position information on positive and negative connections to external devices.

TECHNICAL SPECIFICATIONS

Environmental

0° to 70° C operating
95% RH, noncondensing

Connectors

J1: 50-pin connector:

Thomas & Betts 609-5030 connector
Thomas & Betts 609-5031 strain relief

J2: 26-pin connector:

Thomas & Betts 609-2630 connector
Thomas & Betts 609-2631 strain relief

Field: MPB-08: 16-position, screwtype terminal strip
MPB-16: 32-position, screwtype terminal strip
MPB-24: 48-position, screwtype terminal strip
Accommodates 12-22 gauge wire.

Power and Ground: 2-position, screwtype terminal strip
Accommodates 12-22 gauge wire.

Size

MPB-08: 3.25" (82,55 mm) x 6" (152,40 mm)

MPB-16: 3.25" (82,55 mm) x 10" (254,00 mm)

MPB-24: 6.25" (158,75 mm) x 7.5" (190,50 mm)

CONNECTOR PINOUTS

| Module Position | J1 50-Pin | J2 26-Pin | Field Connector | 8255 Port |
|------------------------|------------------|------------------|------------------------|----------------------|
| 0 | 47 | 13 | 1 & 2 | Port C MPB-08 |
| 1 | 45 | 16 | 3 & 4 | |
| 2 | 43 | 15 | 5 & 6 | |
| 3 | 41 | 17 | 7 & 8 | |
| 4 | 39 | 14 | 9 & 10 | |
| 5 | 37 | 11 | 11 & 12 | |
| 6 | 35 | 12 | 13 & 14 | |
| 7 | 33 | 9 | 15 & 16 | |
| 8 | 31 | 19 | 17 & 18 | Port A MPB-16 |
| 9 | 29 | 21 | 19 & 20 | |
| 10 | 27 | 23 | 21 & 22 | |
| 11 | 25 | 25 | 23 & 24 | |
| 12 | 23 | 24 | 25 & 26 | |
| 13 | 21 | 22 | 27 & 28 | |
| 14 | 19 | 20 | 29 & 30 | |
| 15 | 17 | 18 | 31 & 32 | |
| 16 | 15 | 10 | 33 & 34 | Port B MPB-24 |
| 17 | 13 | 8 | 35 & 36 | |
| 18 | 11 | 4 | 37 & 38 | |
| 19 | 9 | 6 | 39 & 40 | |
| 20 | 7 | 1 | 41 & 42 | |
| 21 | 5 | 3 | 43 & 44 | |
| 22 | 3 | 5 | 45 & 46 | |
| 23 | 1 | 7 | 47 & 48 | |

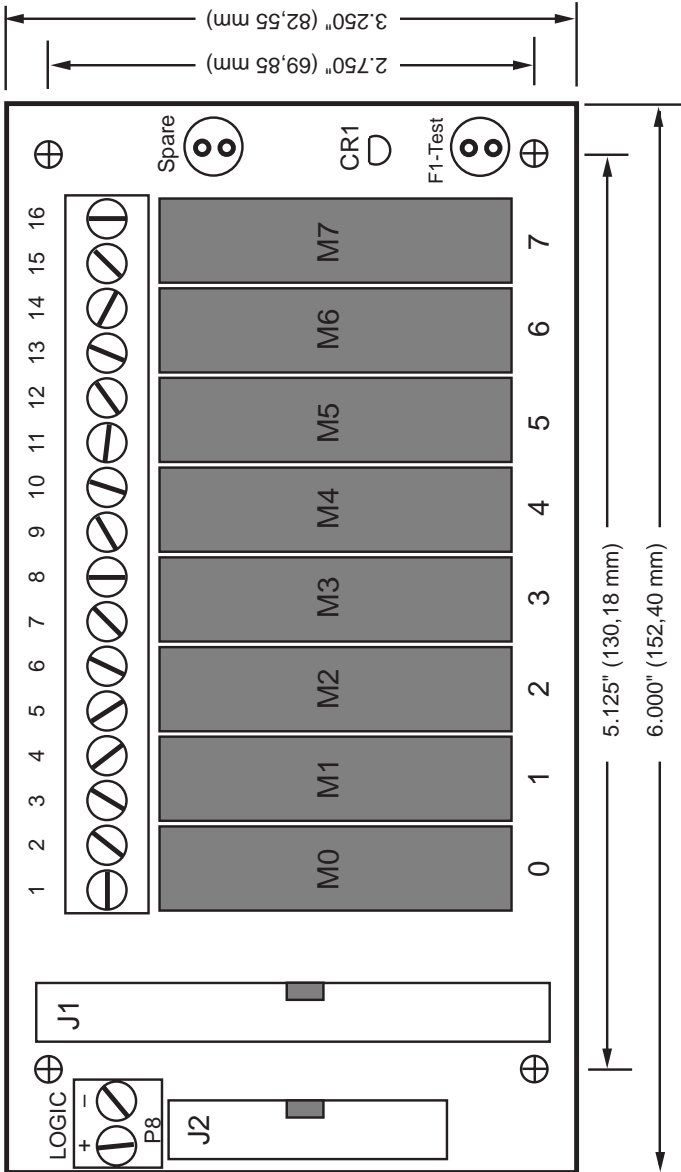


Figure A — MPB-08 Module Rack

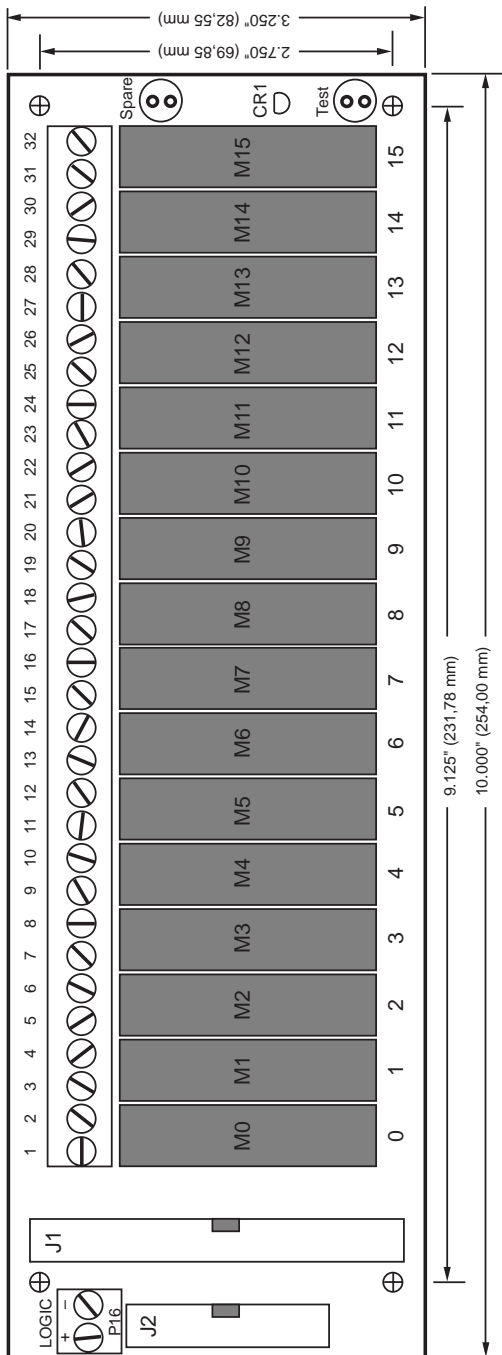


Figure B — MPB-16 Module Rack

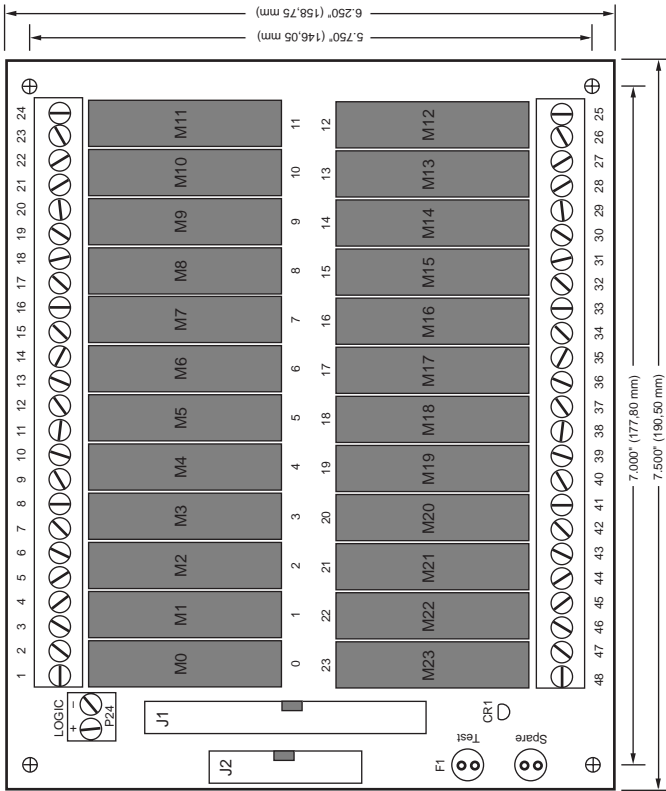


Figure C — MPB-24 Module Rack

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