Overview

The Terminal Chamber multibox® is a new addition to the eurofast® junction box product line, that allows field wiring of the homerun cable with a choice of termination, either screw terminals or spring clamps. These boxes provide flexibility for wire consolidation in applications where the homerun cable may need to be replaced due to damage or retrofitting installations. The field wireable feature of the Terminal Chamber junction box can offer cost savings in some applications where an M23 connector type homerun cable is an additional, or unneeded expense.

Product Features and Benefits

The metal junction box offers shield-ability from the sensor to the control panel and is a good solution for applications with RFI/EMI noise and for protection from physical abuse. The plastic box made with Pocan (PBT) offers good chemical resistance from organic solvents, motor oils and cutting fluids.

These new boxes offer a high current rating, 16 A for 8-port boxes. Operating current is 3 A per port and voltage range is 10-30 VDC. All boxes include two connections for power supplies. Using one connection, the box is limited to 10 A total, but if you use both power supply connections (even just with a jumper wire) the total current jumps to 12 A for the 4-port box, and 16 A for the 8-port box.
Advanced Connection Solutions for Manufacturers Worldwide!

The plastic junction box offers a jumper option for isolating the power supply between the even and odd ports. Two jumpers (located under the terminal connector) allow you to isolate the power supplies or to have a single power source. You can have separate power supplies for ports 1, 3, 5 and 7 and ports 2, 4, 6 and 8.

- 4 or 8-ports, die-cast zinc or industrial plastic
- Plastic junction boxes - 2 yellow/signal LEDs, per port, 2 green/power LEDs.
- Metal junction-boxes - 1 green/power LED
- Cable Gland PG 13.5, metal accepts 10-14 mm cable, plastic accepts 5 mm-12 mm
- Other cable glands options available if needed.
- Protection rating IP 68 - IP 67 Plus submerged 1 M of water for 24 hours.

Applications

Industrial applications that need a metal, shielded box that can provide RFI/EMI noise protection and withstand physical abuse or a plastic PBT junction box that offers higher chemical resistance and the ability to jumper or isolate circuits.

Part Number Guide

Example Part number for an 8-port Terminal Chamber metal, shielded junction box with screw terminal connection.
Example: 8MB12-5P1-MS-SK

8(4) MB12 = eurofast® 4 or 8-port terminal box style multibox® junction
- -5P1 = Contact, Wiring, Signal Indication
- 5 = Dual outputs per port, 5-pin eurofast connector
- P = PNP wiring
- 1 or (4) signal indication, 1 = green power LED (metal box has only one green LED)
- 4 = 2 green power LEDs, (2 signal per port, yellow LEDs)

MS ~ Housing Style
MS = Metal, Shield
K = Plastic

FK/SK ~ Junction Box Termination Style
SK = Screw Terminal Connection
FK = Spring Clamp Connection
### 4-port, 10-30 VDC, 2 Signals Per Port

<table>
<thead>
<tr>
<th>Application</th>
<th>Specifications</th>
<th>Pinout</th>
<th>Spring Clamp</th>
<th>Screw Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-port J-box</td>
<td>3.0 A/port, 10.0 A/power supply, 12.0 A total</td>
<td>Port 1/Signal 1: 1/Wh, 2/2, 3/3, 4/4</td>
<td>4MB12-SP1-MS-FK</td>
<td>4MB12-SP1-MS-SK</td>
</tr>
<tr>
<td></td>
<td>5-pin eurofast connector</td>
<td>Port 1/Signal 1: 9/Gy/Pk, 10/Rd/Bu, 11/Wh/Gn, 12/Bn/Gn</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 green power LED</td>
<td>Port 1/Signal 1: 17/Bn, 18/Bu, 19/Rd</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 mm cable gland PG 13.5</td>
<td>Port 1/Signal 1: 20/Bk, 21/Gn/Ye</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>accepts cable diameter 10-14 mm</td>
<td></td>
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### 8-port, 10-30 VDC, 2 Signals Per Port

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<td>8-port J-box</td>
<td>3.0 A/port, 10.0 A/power supply, 16.0 A total</td>
<td>Port 1/Signal 1: 1/Wh, 2/2, 3/3, 4/4</td>
<td>8MB12-SP1-MS-FK</td>
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<td></td>
<td></td>
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</table>
Specifications

**Housing:** Die Cast Zinc, Nickel plated.
**Connectors:** eurofast: PBT/black, spacings to VDE 0110 Group C.
**Contacts:** Gold plated brass.
**Thread Inserts:** Nickel plated brass.
**Cable Gland & OD:** PG 13.5, accepts cable diameter 10-14 mm.
**Temperature:** -20°C to +90°C (-4°F to +194°F).
**Protection:** NEMA 1,3,4,6P and IEC IP 68.
**Accessories:** Includes (2) TC-CC closure caps and labels, stainless steel enclosure caps available, RSV-CC.
**Termination Method:** Field wireable, spring clamps or screw terminals.

Dimensions

![4-port Dimensions Diagram](image)

![8-port Dimensions Diagram](image)

Functional Wiring Diagram

[2 Signals Per Port Diagram]
- 4 and 8-Port
- 2 Signal Per Port
- Pocan® PBT - Plastic Housing
- Power Supply Isolation Option
- Plug-in Terminal Cover with Spring Clamps or Screw Terminal

### 4-port, 10-30 VDC, 2 Signals Per Port, Isolated Power Supply Optional

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<th>Function</th>
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<th>Screw Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-port J-box</td>
<td>3.0 A/port, 10.0 A per power supply</td>
<td>Port 1/Signal 1: 1/Wh, 2/Gn, 3/Ye, 4/Cy</td>
<td>Terminal Pin</td>
<td>4MB12-5P4-K-FK</td>
<td>4MB12-5P4-K-SK</td>
</tr>
<tr>
<td></td>
<td>12.0 A total</td>
<td>Port 1/Signal 2: 2/Gy/Pk, 3/Rd/Bu, 4/Bn/Gn, 5/18Bu, 6/Rd</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-pin eurofast connector</td>
<td>2(yellow) signal per port LEDs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2(green) power LED</td>
<td>cable gland PG 13.5 accepts cable diameter 5-12mm</td>
<td></td>
<td></td>
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</tr>
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### 8-port, 10-30 VDC, 2 Signals Per Port, Isolated Power Supply Optional

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<td>3.0 A/port, 10.0 A per power supply</td>
<td>Port 1/Signal 1: 1/Wh, 2/Gn, 3/Ye, 4/Cy</td>
<td>Terminal Pin</td>
<td>8MB12-5P4-K-FK</td>
<td>8MB12-5P4-K-SK</td>
</tr>
<tr>
<td></td>
<td>16.0 A total</td>
<td>Port 1/Signal 2: 2/Gy/Pk, 3/Rd/Bu, 4/Bn/Gn, 5/18Bu, 6/Rd</td>
<td></td>
<td></td>
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**Screw Terminal**

<table>
<thead>
<tr>
<th>Terminal End View</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 7 13 5 4 12 6 14 8 10</td>
</tr>
<tr>
<td>8 1 19 17 8 20 2 10</td>
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</table>
Specifications

Housing: PBT Black Plastic.
Connectors: **eurofast**: PBT/black, spacings to VDE 0110 Group C.
Contacts: Gold plated brass.
Thread Inserts: Nickel plated brass.
Cable Gland & OD: PG 13.5, accepts cable diameter 5 to 12 mm
Temperature: -20°C to +90°C (-4°F to +194°F)
Protection: NEMA 1,3,4,6P and IEC IP 68.
Accessories: (2) TC-CC closure caps and (labels) included.
Termination Method: Field wireable, Spring Clamp or Screw Terminal

Dimensions

4-port

![4-port Dimensions Diagram]

8-port

![8-port Dimensions Diagram]

Functional Wiring Diagram

**LED version**

2 Signals Per Port

![Functional Wiring Diagram LED version]

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