



Note: 2 port caps for unused ports are included.



Overview

ZIPport multi-port interconnection junction blocks provide a simple and effective way to organize machine wiring for a variety of control systems, such as packaging equipment and conveying systems. These systems typically have many I/O points,

such as sensors or solenoid-operated valves, consolidated in one location. Many times these devices are hardwired to a junction box or separately wired back to the main control cabinet. ZIPport multi-port junction blocks provide a more efficient and cost-effective solution: a main homerun control cable is run back to the

main control cabinet, so the cost associated with errors in wiring, rewiring, and I/O replacement is greatly reduced. The designer can choose from a variety of circuit configurations in industry standard M12-style connection, in port configurations of 4-, 6- and 8-pole, with a choice of one I/O per port or two I/O per port.


| ZIPport Junction Block Specifications | | | | | |
|--|---|-----------------------------------|------------------------------------|--|--|
| Electrical Specifications | | | | | |
| Voltage Rating | Without LEDs: 0 to 150 V AC/DC max. With LEDs: 48 VDC max, in accordance with LED Configuration | | | | |
| Current Rating | 3 A per connector, 8 A per block | | | | |
| Technical Specifications | | | | | |
| Agency Approvals | UL file E328610, RoHS compliant | | | | |
| Degree of Protection | IP 67, with proper field wiring cable and all ports being used or covered with a protective cap. | | | | |
| Operating Temperature Range | -20°C to +80°C (-4°F to 176°F) | | | | |
| Material Specifications | | | | | |
| Body | Polypropylene | | | | |
| Inserts | Polyamide | | | | |
| Coupling Nuts | 4, 6, and 8-Port: PBT | | | | |
| Screws | Two m3x0.5x14 screws are used to assemble backshell. | | | | |
| O-Ring | BUNA-N | | | | |
| Cable Gland | M20x1.5 | | | | |
| Recommended Cable Diameters for Field Wireable | <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">With inner grommet intact:</td> <td style="width: 50%;">With inner grommet removed:</td> </tr> <tr> <td> <ul style="list-style-type: none"> • Max OD: 0.31" [7.9mm]. • Min OD: For PUR Cable 0.19" [4.8mm], For PVC Cable 0.17" [4.3mm] </td> <td> <ul style="list-style-type: none"> • Max OD: 0.49" [12.5mm]. • Min OD: For PUR Cable 0.28" [7.2mm], -For PVC cable 0.28" [7.2mm], -For SJT/SJE/ST/SE Cable 0.305" [7.75mm] </td> </tr> </table> | With inner grommet intact: | With inner grommet removed: | <ul style="list-style-type: none"> • Max OD: 0.31" [7.9mm]. • Min OD: For PUR Cable 0.19" [4.8mm], For PVC Cable 0.17" [4.3mm] | <ul style="list-style-type: none"> • Max OD: 0.49" [12.5mm]. • Min OD: For PUR Cable 0.28" [7.2mm], -For PVC cable 0.28" [7.2mm], -For SJT/SJE/ST/SE Cable 0.305" [7.75mm] |
| With inner grommet intact: | With inner grommet removed: | | | | |
| <ul style="list-style-type: none"> • Max OD: 0.31" [7.9mm]. • Min OD: For PUR Cable 0.19" [4.8mm], For PVC Cable 0.17" [4.3mm] | <ul style="list-style-type: none"> • Max OD: 0.49" [12.5mm]. • Min OD: For PUR Cable 0.28" [7.2mm], -For PVC cable 0.28" [7.2mm], -For SJT/SJE/ST/SE Cable 0.305" [7.75mm] | | | | |
| LED Lens | Polycarbonate | | | | |
| Contacts | Copper Alloy with Gold Plating | | | | |
| Marker Tags | Polyamide (supplied on all units) | | | | |
| Accessories | 2 port caps for unused ports included. Purchase additional caps (in packs of 5) separately. | | | | |



M12 Junction Blocks – Selection

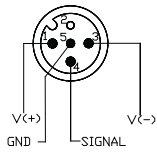


ZP-JBH85-N2-5 shown

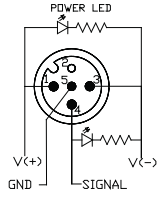
| ZIPport M12 Series Selection Chart | | | | | | | | | | |
|------------------------------------|---------|----------------------------------|-----------------|----------------|---------------------|------------------------------|-------------|---------------|------------|---|
| Part Number | Ports | Wire/Pins | Indicating LEDs | I/O per Socket | Rating per Socket | Home Run Connection Type | Wiring | Pin Out Table | Dimensions | Accessories |
| 4 Port | | | | | | | | | | |
| ZP-JBH44-00-FW | 4 | 4/5 | No LED | 1 | 150V AC/DC max, 3 A | cable clamp for field wiring | Diagram 1-A | – | Figure 1 | ZP-JBH-CAP CDP12-0B-010-AA CDP12-0B-030-AA CDP12-0B-010-BB CDP12-0B-030-BB |
| ZP-JBH44-2P-FW | | | PNP | 1 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 1-B | – | Figure 1 | |
| ZP-JBH44-2N-FW | | | NPN | 1 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 1-C | – | Figure 1 | |
| ZP-JBH44-00-5 | | | No LED | 1 | 150V AC/DC max, 3 A | 5-meter integrated cable | Diagram 1-A | Table 1 | Figure 1 | |
| ZP-JBH44-2P-5 | | | PNP | 1 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 1-B | Table 1 | Figure 1 | |
| ZP-JBH44-2N-5 | | | NPN | 1 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 1-C | Table 1 | Figure 1 | |
| ZP-JBH45-00-FW | | 5/5 | No LED | 2 | 150V AC/DC max, 3 A | cable clamp for field wiring | Diagram 2-A | – | Figure 2 | |
| ZP-JBH45-2P-FW | | | PNP | 2 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 2-B | – | Figure 2 | |
| ZP-JBH45-2N-FW | | | NPN | 2 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 2-C | – | Figure 2 | |
| ZP-JBH45-00-5 | | | No LED | 2 | 150V AC/DC max, 3 A | 5-meter integrated cable | Diagram 2-A | Table 2 | Figure 2 | |
| ZP-JBH45-2P-5 | | | PNP | 2 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 2-B | Table 2 | Figure 2 | |
| ZP-JBH45-2N-5 | | | NPN | 2 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 2-C | Table 2 | Figure 2 | |
| 6 Port | | | | | | | | | | |
| ZP-JBH64-00-FW | 6 | 4/5 | No LED | 1 | 150V AC/DC max, 3 A | cable clamp for field wiring | Diagram 3-A | – | Figure 3 | ZP-JBH-CAP CDP12-0B-010-AA CDP12-0B-030-AA CDP12-0B-010-BB CDP12-0B-030-BB |
| ZP-JBH64-2P-FW | | | PNP | 1 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 3-B | – | Figure 3 | |
| ZP-JBH64-2N-FW | | | NPN | 1 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 3-C | – | Figure 3 | |
| ZP-JBH64-00-5 | | | No LED | 1 | 150V AC/DC max, 3 A | 5-meter integrated cable | Diagram 3-A | Table 3 | Figure 3 | |
| ZP-JBH64-2P-5 | | | PNP | 1 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 3-B | Table 3 | Figure 3 | |
| ZP-JBH64-2N-5 | | | NPN | 1 | 48V DC max, 2 A | 5-meter integrated cable | Diagram 3-C | Table 3 | Figure 3 | |
| ZP-JBH65-00-FW | | 5/5 | No LED | 2 | 150V AC/DC max, 3 A | cable clamp for field wiring | Diagram 4-A | – | Figure 4 | |
| ZP-JBH65-2P-FW | | | PNP | 2 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 4-B | – | Figure 4 | |
| ZP-JBH65-2N-FW | | | NPN | 2 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 4-C | – | Figure 4 | |
| ZP-JBH65-00-5 | | | No LED | 2 | 150V AC/DC max, 3 A | 5-meter integrated cable | Diagram 4-A | Table 4 | Figure 4 | |
| ZP-JBH65-2P-5 | | | PNP | 2 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 4-B | Table 4 | Figure 4 | |
| ZP-JBH65-2N-5 | | | NPN | 2 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 4-C | Table 4 | Figure 4 | |
| 8 Port | | | | | | | | | | |
| ZP-JBH84-00-FW | 8 | 4/5 | No LED | 1 | 150V AC/DC max, 3 A | cable clamp for field wiring | Diagram 5-A | – | Figure 5 | ZP-JBH-CAP CDP12-0B-010-AA CDP12-0B-030-AA CDP12-0B-010-BB CDP12-0B-030-BB |
| ZP-JBH84-2P-FW | | | PNP | 1 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 5-B | – | Figure 5 | |
| ZP-JBH84-2N-FW | | | NPN | 1 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 5-C | – | Figure 5 | |
| ZP-JBH84-00-5 | | | No LED | 1 | 150V AC/DC max, 3 A | 5-meter integrated cable | Diagram 5-A | Table 5 | Figure 5 | |
| ZP-JBH84-2P-5 | | | PNP | 1 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 5-B | Table 5 | Figure 5 | |
| ZP-JBH84-2N-5 | | | NPN | 1 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 5-C | Table 5 | Figure 5 | |
| ZP-JBH85-00-FW | | 5/5 | No LED | 2 | 150V AC/DC max, 3 A | cable clamp for field wiring | Diagram 6-A | – | Figure 6 | |
| ZP-JBH85-2P-FW | | | PNP | 2 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 6-B | – | Figure 6 | |
| ZP-JBH85-2N-FW | | | NPN | 2 | 48V DC max, 3 A | cable clamp for field wiring | Diagram 6-C | – | Figure 6 | |
| ZP-JBH85-00-5 | | | No LED | 2 | 150V AC/DC max, 3 A | 5-meter integrated cable | Diagram 6-A | Table 6 | Figure 6 | |
| ZP-JBH85-2P-5 | | | PNP | 2 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 6-B | Table 6 | Figure 6 | |
| ZP-JBH85-2N-5 | | | NPN | 2 | 48V DC max, 3 A | 5-meter integrated cable | Diagram 6-C | Table 6 | Figure 6 | |
| Accessories | | | | | | | | | | |
| Part Number | Pcs/Pkg | Description | | | | | | | | Use With |
| ZP-JBH-CAP | 5 | Protective cap for unused ports. | | | | | | | |  M12 ZipPort junction blocks |

Wiring Diagrams

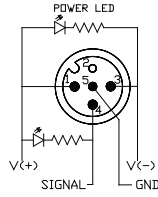
4 Port 4 Pin



No LED Version
Diagram 1-A

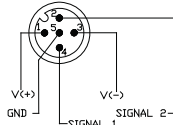


PNP Version
Diagram 1-B

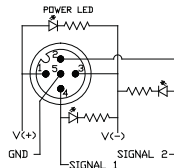


NPN Version
Diagram 1-C

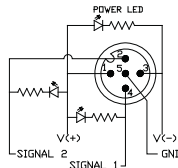
4 Port 5 Pin



No LED Version
Diagram 2-A

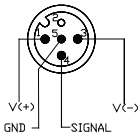


PNP Version
Diagram 2-B

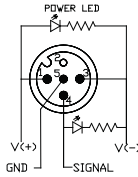


NPN Version
Diagram 2-C

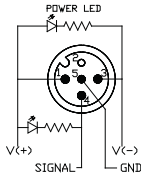
6 Port 4 Pin



No LED Version
Diagram 3-A

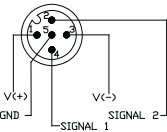


PNP Version
Diagram 3-B

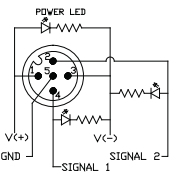


NPN Version
Diagram 3-C

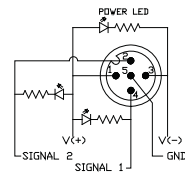
6 Port 5 Pin



No LED Version
Diagram 4-A

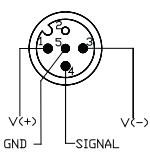


PNP Version
Diagram 4-B

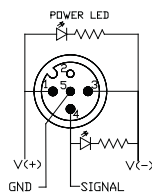


NPN Version
Diagram 4-C

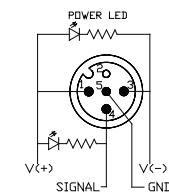
8 Port 4 Pin



No LED Version
Diagram 5-A

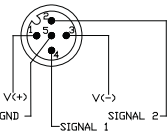


PNP Version
Diagram 5-B

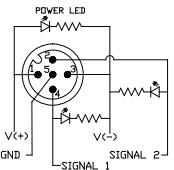


NPN Version
Diagram 5-C

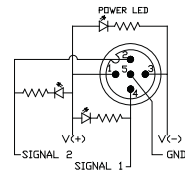
8 Port 5 Pin



No LED Version
Diagram 6-A



PNP Version
Diagram 6-B



NPN Version
Diagram 6-C

Pin-Out Tables

| Pin Out Table 1 | |
|--------------------------|------------------|
| M12 4 Port 4-Pin ZipPort | |
| Function | Cable O.D. 0.34" |
| +V | Brown |
| -V | Blue |
| Ground | Green/Yellow |
| Port 1 Pin 4 | White |
| Port 2 Pin 4 | Green |
| Port 3 Pin 4 | Yellow |
| Port 4 Pin 4 | Gray |

| Pin Out Table 2 | |
|--------------------------|------------------|
| M12 4 Port 5-Pin ZipPort | |
| Function | Cable O.D. 0.38" |
| +V | Brown |
| -V | Blue |
| Ground | Green/Yellow |
| Port 1 Pin 2 | Pink |
| Port 1 Pin 4 | White |
| Port 2 Pin 2 | Red |
| Port 2 Pin 4 | Green |
| Port 3 Pin 2 | Black |
| Port 3 Pin 4 | Yellow |
| Port 4 Pin 2 | Violet |
| Port 4 Pin 4 | Gray |

| Pin Out Table 3 | |
|--------------------------|------------------|
| M12 6 Port 4-Pin ZipPort | |
| Function | Cable O.D. 0.35" |
| +V | Brown |
| -V | Blue |
| Ground | Green/Yellow |
| Port 1 Pin 4 | White |
| Port 2 Pin 4 | Green |
| Port 3 Pin 4 | Yellow |
| Port 4 Pin 4 | Gray |
| Port 5 Pin 4 | Pink |
| Port 6 Pin 4 | Red |

| Pin Out Table 4 | |
|--------------------------|------------------|
| M12 6 Port 5-Pin ZipPort | |
| Function | Cable O.D. 0.40" |
| +V | Brown |
| -V | Blue |
| Ground | Green/Yellow |
| Port 1 Pin 2 | Gray/Pink |
| Port 1 Pin 4 | White |
| Port 2 Pin 2 | Red/Blue |
| Port 2 Pin 4 | Green |
| Port 3 Pin 2 | White/Green |
| Port 3 Pin 4 | Yellow |
| Port 4 Pin 2 | Brown/Green |
| Port 4 Pin 4 | Gray |
| Port 5 Pin 2 | White/Yellow |
| Port 5 Pin 4 | Pink |
| Port 6 Pin 2 | Yellow/Brown |
| Port 6 Pin 4 | Red |

| Pin Out Table 5 | |
|--------------------------|------------------|
| M12 8 Port 4-Pin ZipPort | |
| Function | Cable O.D. 0.35" |
| +V | Brown |
| -V | Blue |
| Ground | Green/Yellow |
| Port 1 Pin 4 | White |
| Port 2 Pin 4 | Green |
| Port 3 Pin 4 | Yellow |
| Port 4 Pin 4 | Gray |
| Port 5 Pin 4 | Pink |
| Port 6 Pin 4 | Red |
| Port 7 Pin 4 | Black |
| Port 8 Pin 4 | Violet |

| Pin Out Table 6 | |
|--------------------------|------------------|
| M12 8 Port 5-Pin ZipPort | |
| Function | Cable O.D. 0.43" |
| +V | Brown |
| -V | Blue |
| Ground | Green/Yellow |
| Port 1 Pin 2 | Gray/Pink |
| Port 1 Pin 4 | White |
| Port 2 Pin 2 | Red/Blue |
| Port 2 Pin 4 | Green |
| Port 3 Pin 2 | White/Green |
| Port 3 Pin 4 | Yellow |
| Port 4 Pin 2 | Brown/Green |
| Port 4 Pin 4 | Gray |
| Port 5 Pin 2 | White/Yellow |
| Port 5 Pin 4 | Pink |
| Port 6 Pin 2 | Yellow/Brown |
| Port 6 Pin 4 | Red |
| Port 7 Pin 2 | White/Gray |
| Port 7 Pin 4 | Black |
| Port 8 Pin 2 | Gray/Brown |
| Port 8 Pin 4 | Violet |

Note: Pin Out Tables are For 5-meter integrated cable only. Please refer to product insert for field wiring.

Dimensions

Figure 1: 4 Port 4 Pin

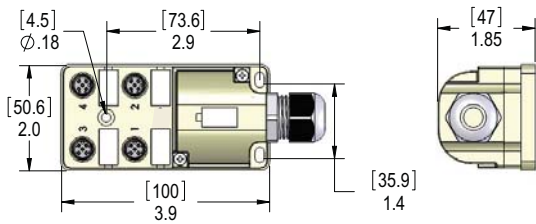


Figure 2: 4 Port 5 Pin

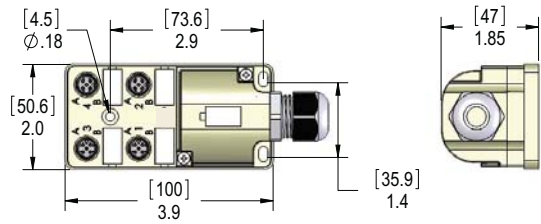


Figure 3: 6 Port 4 Pin

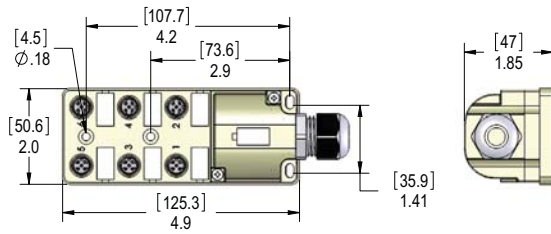


Figure 4: 6 Port 5 Pin

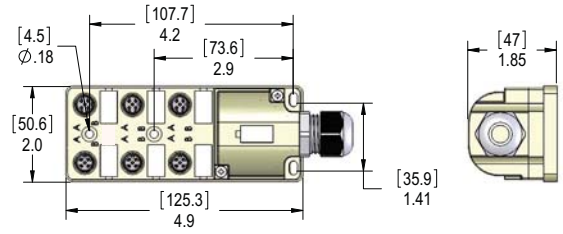


Figure 5: 8 Port 4 Pin

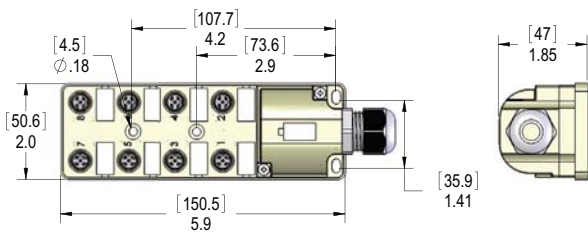
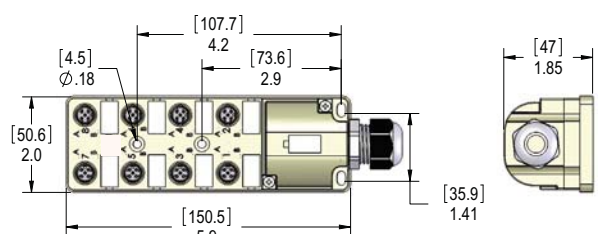


Figure 6: 8 Port 5 Pin



Note: All dimensions are shown in inches [millimeters]