

Blindmate Powerpole® Pak Connector

The Blindmate Powerpole Pak is a low cost, modular blindmate connector for rack and panel power and communications applications.

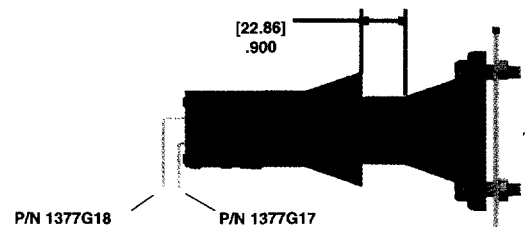
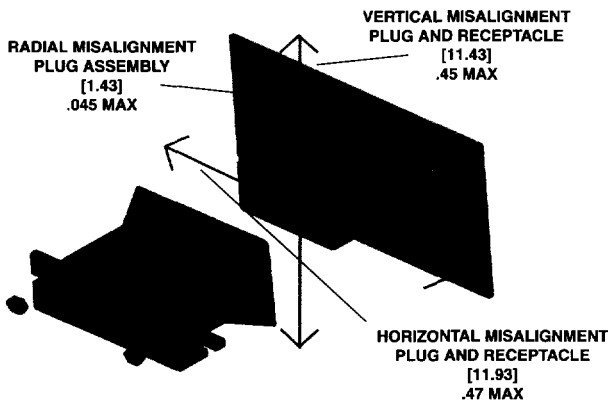
The Powerpole Pak enables up to 2x4 configurations of our popular UL recognized/CSA certified 15/45 Powerpole connectors as well as both 10 amp and 30 amp "first mate/last break" grounding contacts.

The new Powerpole Pak allows for a maximum .470" (11.93 mm) of horizontal and .450" (11.43 mm) of vertical misalignment through a combination of spring loading and generous chamfers. The receptacle design enables direct attachment to the printed circuit board in either a

right angle or vertical configuration when used with the Powerpole 25 amp PCB contacts. Contacts are available in both loose piece and reel for #10-#20 wire gauges and can be either crimped or soldered.

The Blindmate and Powerpole housings are made of high impact and corrosion-resistant thermoplastic (UL94VO rated resin). The Powerpole connectors used in the Blindmate housings are genderless, which reduces piece part inventories by eliminating the need to stock male and female connectors. In addition, a wide range of available colors enables cable coding and assures correct mating of connector halves.

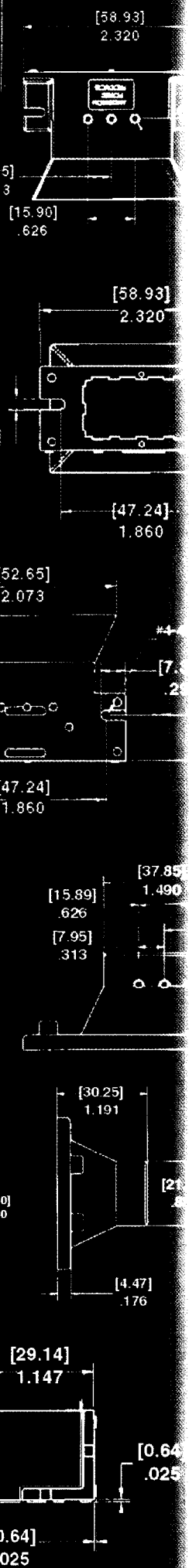
Blindmate Misalignment Capability

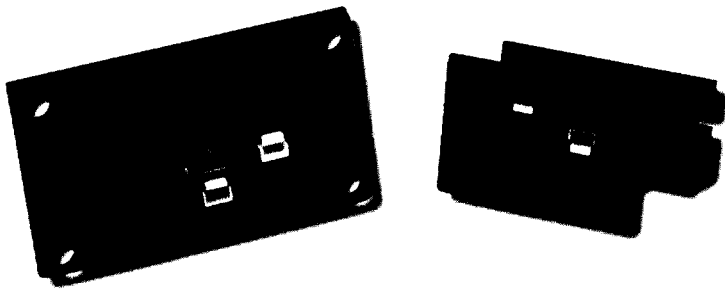
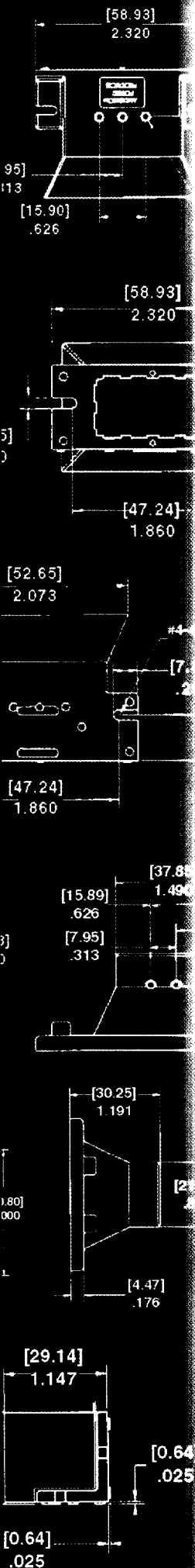


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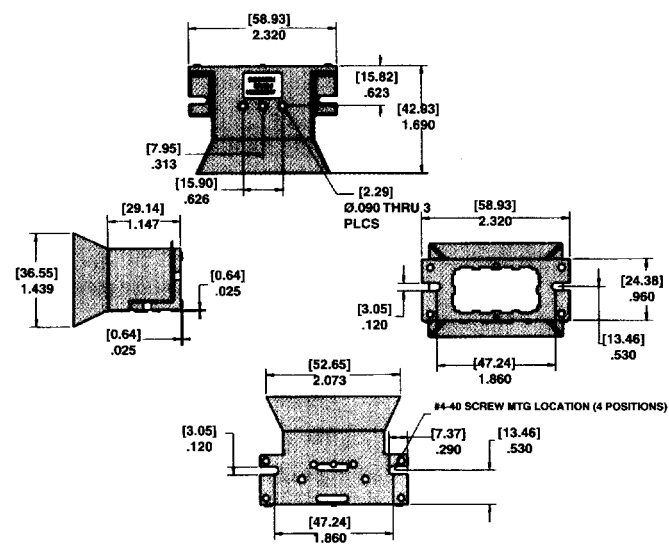
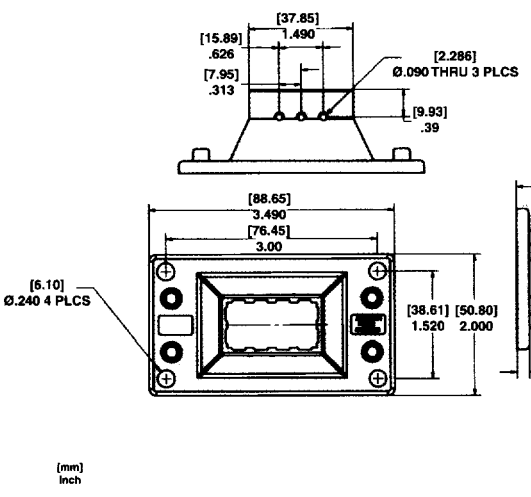
Anderson Power Products*





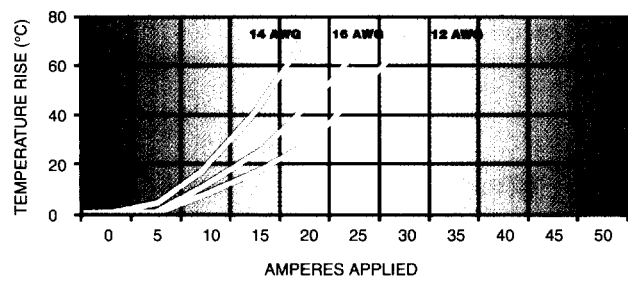
Plug Outline
P/N Bold

Receptacle Outline
P/N Bold

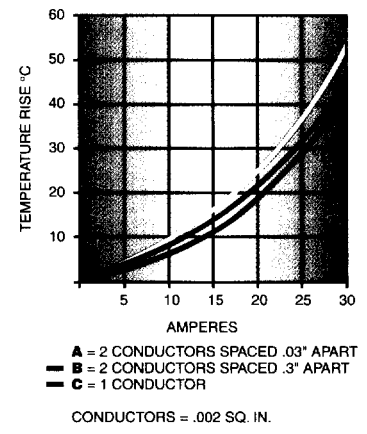


(mm)
Inch

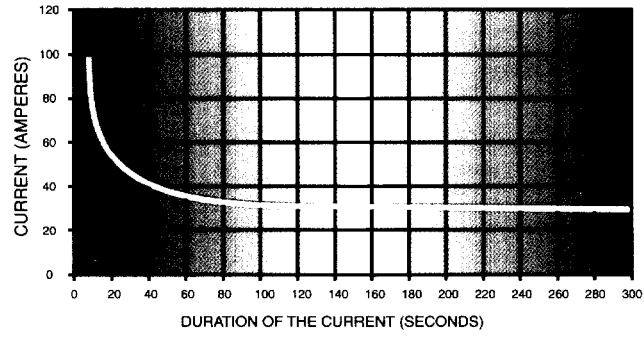
Temperature Rise Data
PP 30 (More than two poles)



Temperature Rise Data
25amp printed circuit board



Pulse Rise Capability
1x4 PCB 25 amps using 12 AWG Wire

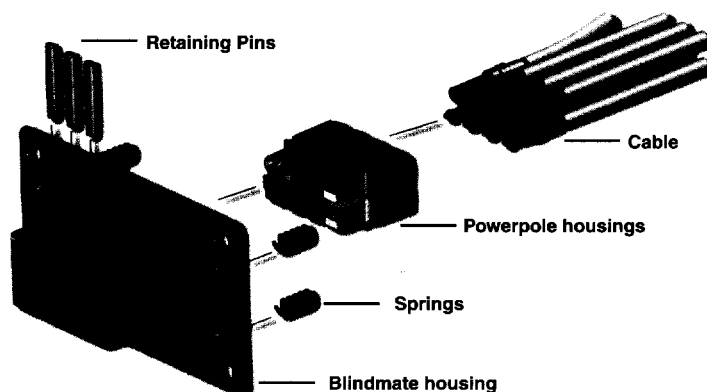


Material Properties

Blindmate housings: Polycarbonate, UL 94VO Color(s): Black
 Powerpole® housings: Polycarbonate, UL 94VO Color(s): Red, green, black, white, blue, yellow, orange, gray
 Powerpole contacts: Base metal copper 99% min.
 Plating: Wire contacts - tin or silver
 PCB contacts - tin
 Powerpole springs: Stainless steel

Mechanical Properties

Mating cycles: 500 min. (loaded Blindmate housings)
 Mating force: 25 lbs. avg. (fully loaded housings)
 Misalignment allowance: Radial: .045 max. inches (1.14 mm)
 Vertical: .45 max. inches (11.43 mm)
 Horizontal: .47 max. inches (11.93 mm)
 Engagement distance: .900(+/- .010) inches
 22.86(+/- .25) mm (see illustration)



Typical single pole characteristics

Connector Model	PP10	PP15	PCB25	PP30	PP45
U.L. Current Rating (Ampere)*	10	15	25	30	45**
U.L. Voltage Rating (Volts)***	600	600	600	600	600
Contact Barrel Wire Size Accommodation (AVG.)*	14 TO 16	16 TO 20	N/A	12 TO 16	10 TO 14
AVG Contact Resistance (OHMS)*	.002200	.000875	.000600	.000600	.000525
Insulation Withstanding Test Voltage (Volts DC)	2200	2200	2200	2200	2200
Maximum Wire Insulation Diameter (inches)	0.137	0.175	N/A	0.175	0.175
Contact Retention Force (lbs)	25	25	25	25	35
Avg. connection/Disconnect Force (lbs)	5	3	3	3	3
Operating Temperature Range °C**** (Ambient Plus Temperature Rise)	-20° to 105°	-20° to 105°	-20° to 105°	-20° to 105°	-20° to 105°
Flammability Rating of Housing Material	U.L. 94VO				

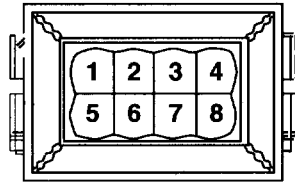
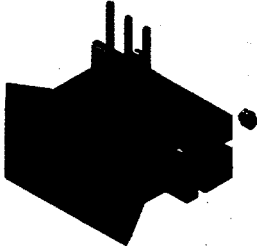
* UL Rated for 65°C rated wire or cable size
 ** For 75°C rated wire or cable size

*** Both AC & DC Voltage
 **** Contact factory for higher temperature rated connectors

Ordering Information

Instructions: Enter desired housing and contact choices in appropriate boxes, using charts below. APP will assign a final part number upon order entry. Contacts may also be ordered separately in bulk form. If bulk is the preferred option, leave contact requirements blank.

Blindmate Receptacle



Powerpole Housing Color

Using the list below, fill in each box with a letter.

--	--	--	--	--	--	--	--

1 2 3 4 5 6 7 8
(Position Number)

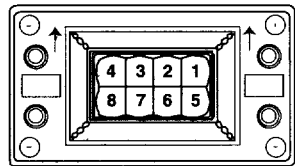
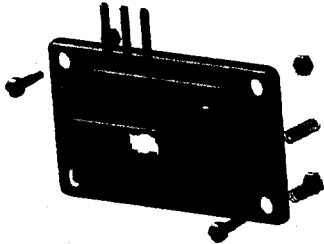
* Contact Requirements

Using the list below, fill in each box with a letter.

--	--	--	--	--	--	--	--

1 2 3 4 5 6 7 8
(Position Number)

Blindmate Plug



Powerpole Housing Color

Using the list below, fill in each box with a letter.

--	--	--	--	--	--	--	--

4 3 2 1 8 7 6 5
(Position Number)

* Contact Requirements

Using the list below, fill in each box with a letter.

--	--	--	--	--	--	--	--

4 3 2 1 8 7 6 5
(Position Number)

Powerpole, Housing Color

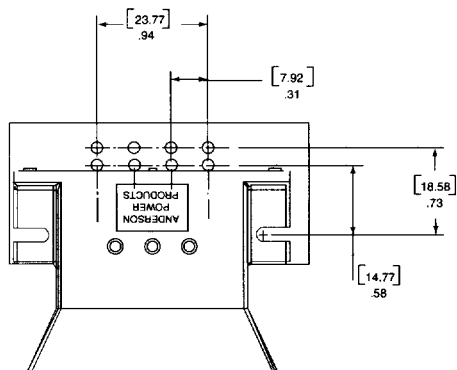
- A Red
- B Green
- C Black
- D White
- E Blue
- F Yellow
- G Orange
- H Gray
- I Short red spacer
- J 30 amp ground pin housing
- K 30 amp ground socket housing
- L 10 amp ground socket housing
- M 10 amp ground pin housing

Available Contacts*

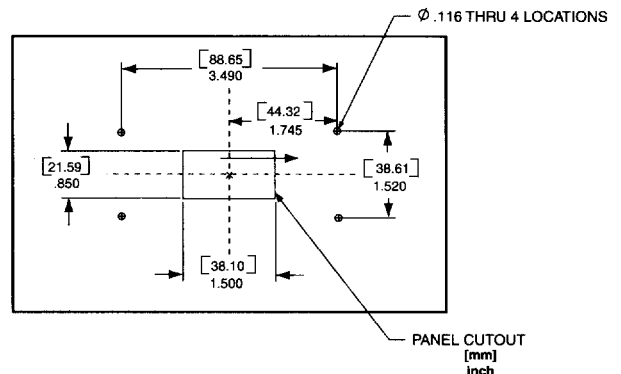
- A 25 amp straight terminal 2.16"
- B 25 amp straight terminal 1.7"
- C 25 amp straight terminal 1.11"
- D 25 amp .88/1.141 Right Angle Bend
- E 25 amp .58/1.0 Right Angle Bend
- F Powerpole 30 amp #12-16 AWG
- G Powerpole 15 amp #16-20 AWG
- H Powerpole 45 amp #10-14 AWG
- I Powerpole 30 amp ground pin, up to #10 (cable only)
- J Powerpole 30 amp ground socket, up to #10 AWG (cable only)
- K Powerpole 30 amp #12-16 AWG - Reel
- L Powerpole 45 amp #10-14 AWG - Reel
- M Powerpole 15 amp #16-20 AWG - Reel
- N Powerpole 10 amp ground socket (cable only)
- O Powerpole 10 amp ground pin (cable only)

*(Contacts will be shipped with plug and/or receptacle loose in a bag contacts are not installed in housings).

Receptacle Printed Circuit Board Layout



Plug Panel Cutout



Anderson Power Products*

ISO 9001 USA
ISO 9002 Ireland