

PL-500SM-N Series

Plastic Shell Auto-Coupling Connectors

14 pole capacity miniature circular connector



Features

Ideal for panel-mount instrumentation and hand-held equipment, the compact and cost effective Pulse-Lok®500SM-N Series is designed to meet the efficient packaging demands of portable electronic devices.

Overview (intuitive, compact, configurable)

- Pulse-Lok® auto-latch / mating confirmation
- Miniature 0.520" diameter circular shell
- Up to 14 contact positions
- Multiple standard and proprietary keying options available
- 6 various color options

Order as a full cable assembly (Consult Factory)

- Single or double-ended
- Customize your cable bundle
- Overmolded strain relief
- Add components to fulfill design requirements

Specifications (for reference only)

Material

- Connector Housing: Polyamide 12 (LV3H)
- Molded Contact Insulator (Core): LCP
- Contacts: Brass / Phosphor Bronze
 - 30μ" Gold over 50μ" Nickel
- Flammability Rating
 - Housing & Coupler: UL94 HB
 - Molded Contact Insulator (Core): UL94 V-0

Mechanical

- Mating Cycles: 5,000
- Mating Force:
 - Mate: 5 lbs. Max
 - Un-mate: 1.5 lbs. Max
- Unintended Extraction: 35 lbs. Min.
- Backshell Withdrawal: 5 lbs. Min.***

Environmental

- Operating Temperature: -20°C to +85°C
- Moisture Resistance: to IP-67 (mated)
- Sterilizable: EtO, Autoclave, STERRAD® - contact factory
- Chemical Resistance: Common operating room cleaning solvents

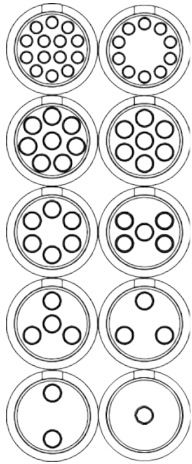
***Backshell sold separately

For additional information about this, or any other Amphenol Alden product, please contact an Amphenol Alden specialist today.

Table A: Standard Contact Configurations & Specifications

Number of Poles	Contact Size (Pin Diameter - mm)	Max Wire Gauge	Operating Voltage Max (V RMS)	Operating Current Max (A)*	Mated Contact Resistance (mΩ)
14	0.5	26	300	2.5	<50
10	0.5	26	300	2.5	<50
8	0.7	22	300	3.5	<50
7	0.7	22	300	3.5	<50
6	0.7	22	300	3.5	<50
5	0.7	22	300	3.5	<50
4	0.7	22	300	3.5	<50
3	0.7	22	300	3.5	<50
2	0.7	22	300	3.5	<50
1	0.7	22	300	3.5	<50
1	1.5	16	300	5.0	<50

Up to 14 Contact Positions



*30°C Heat Rise Limit | Custom contact inserts are available. Consult factory.

Standard Housing Options - dimensions in inches

Cable Mount Receptacles

Cable Mount Receptacle Assembly



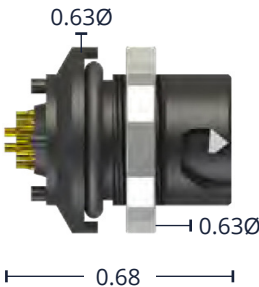
Shown with optional backshell

Cable Mount Receptacle Kit



Select this component from Table B

Rear Panel-Mount Receptacle Assembly



Panel thickness range = 0.063 to 0.125
Select this component from Table B

Cable Mount Plugs

Cable Mount Plug Assembly



Shown with optional backshell

Cable Mount Plug Kit



Select this component from Table B

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Table B: Standard Part Numbers

Number of Poles	Cable Mount Receptacle	Rear Panel-Mount Receptacle		Cable Mount Plug
	Solder Cup	Solder Cup	PCB	Solder Cup
14	320679	320483	320875	320182
10	320651	320455	320847	320126
8	320637	320441	320833	320098
7	320630	320434	320826	320084
6	320623	320427	320819	320070
5	320616	320420	320812	320056
4	320609	320413	320805	320042
3	320602	320406	320798	320028
2	320595	320399	320791	320014
1 (22 AWG)	320588	320392	320784	320000
1 (16 AWG)	321022	321008	320980	-

Note: Part numbers cover black housings in Key 1 configuration. For other color and housing options utilize the Amphenol Alden connector configurator located at www.amphenolalden.com/configurator

Contact Termination Options - dimensions in inches

PCB (Panel-Mount Receptacles only)



Stand off height 0.05
Pin length 0.125

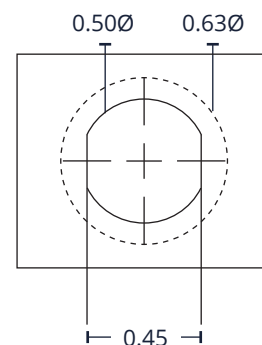
Request sales drawing for PCB Mounting Templates

Solder Cup (Available for All)



Tiered contact solder cups provide easy access to center positions. Canted cups facilitate quick and easy wire positioning. Standard on 2-14 pole configurations

Panel-Mount, Cut-Out Template



0.630 Mounting Ring Footprint

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Accessories

Receptacle Dust Cover



P/N107976

Backshell



P/N108194-02
(For 0.20" Cable Diameter)

Plug SoakingCap



P/N112058-01

Note: Black (std.) Gray (optional) & accessories sold separately

Assembly Instructions

Cable Mount Receptacle Instructions:

- AI-PL500SMN-IR01 (1Pole,16AWG)
- AI-PL500SMN-IR02 (1-14 Pole, 22/26AWG)

Panel-Mount Receptacle Instructions:

- AI-PL500SMN-PMR01 (1Pole,16AWG)
- AI-PL500SMN-PMR02 (1-14 Pole,22/26AWG)

Cable Mount Plug Instructions:

- AI-PL500SMN-P01 (1Pole, 16AWG)
- AI-PL500SMN-P02 (1-14 Pole,22/26AWG)

Note: Assembly may be required, recommended tooling included in assembly instructions

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