

# 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

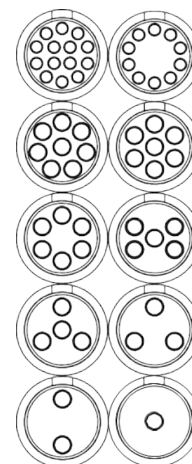
- Operating Temperature: -20°C to +85°C
  - Moisture Resistance: to IP-67 (mated)
  - Sterilizable: EtO, Autoclave, STERRAD® - contact factory
  - Chemical Resistance: Common operating room cleaning solvents
- \*\*\*Backshell sold separately

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



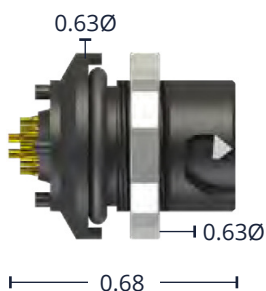
Shown with optional backshell

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

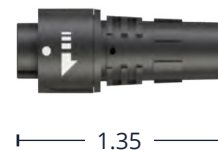
**Cable Mount Plugs**

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	Front Panel-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](http://www.amphenolalden.com/configurator)

## Contact Termination Options - dimensions in inches

### PCB (Panel-Mount Receptacles only)



Stand off height 0.05  
Pin length 0.125

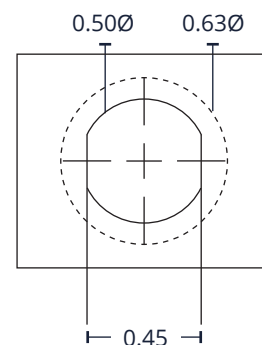
Request sales drawing for PCB Mounting Templates

### 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 Soaking Cap



P/N112058-01

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

## Assembly Instructions

### Cable Mount Receptacle Instructions:

AI-PL500SMN-IR01 (1 Pole, 16AWG)

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

### Panel-Mount Receptacle Instructions:

AI-PL500SMN-PMR01 (1 Pole, 16AWG)

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

### Cable Mount Plug Instructions:

AI-PL500SMN-P01 (1 Pole, 16AWG)

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

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

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