

### PL-500SM-N 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

#### 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 Temp: -20C to +85C\*\*
- Moisture Resistance: to IP-67 (mated)
- Sterilizable: EtO, Autoclave, STERRAD®\*\*
- Chem. Resistance: common OR cleaning solvents

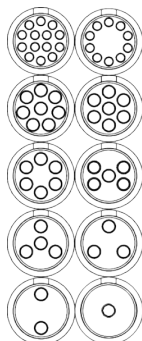
\*\*Dependent on overmold material. Consult factory

\*\*\*Backshell sold separately

TABLE A:

STANDARD CONTACT CONFIGURATIONS & SPECIFICATIONS

#### Up to 14 Contact Positions



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

\*30C Heat Rise Limit

Custom contact inserts are available. Consult factory.

### STANDARD HOUSING OPTIONS

#### Cable Mount Receptacle Assembly



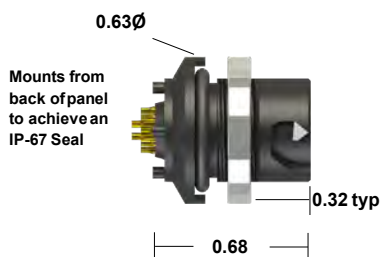
Shown with optional backshell

#### Cable Mount Receptacle Kit



Select this component from Table B

#### Rear Panel-Mount Receptacle Assembly



Mounts from back of panel to achieve an IP-67 Seal

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

#### Cable Mount Plug Assembly



Shown with optional backshell

#### Cable Mount Plug Kit



Select this component from Table B

\*All dimensions shown in inches except where indicated

Standard color is black on black. See our online configurator for color options at: [www.AmphenolAlden.com/configurator](http://www.AmphenolAlden.com/configurator)

For additional information about this or any other Amphenol Alden product, please contact an Amphenol Alden specialist today, [www.AmphenolAlden.com](http://www.AmphenolAlden.com)

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# PL-500SM-N SERIES

Plastic Shell Auto-Coupling Connectors **14 pole capacity miniature circular connector**

TABLE:

## 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](http://www.amphenolalden.com/configurator)

### Options Include:

Housing Color Options

Mating Key Options

Panel-Mount Thickness Options

Black (std.), Gray, White, Blue, Red, Green, Yellow

2 Standard Keys, Proprietary Keys Available

Up to .125 Standard

## Receptacles & Cable Mount Plug

## CONTACT TERMINATION OPTIONS

### PCB (Panel-Mount Receptacles only)



Stand off height 0.05"  
Pin length 0.125"

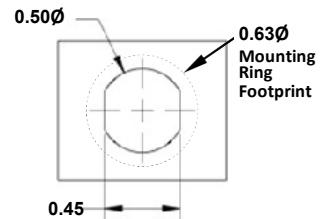
Request sales drawing for PCB  
Mounting Templates

### 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



## ACCESSORIES

### Receptacle Dust Cover



P/N 107976

### Backshell



P/N 108194-02  
(For 0.20" Cable Diameter)

### Plug Soaking Cap



P/N 112058-01

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

For additional information about this or any other Amphenol Alden product, please contact  
an Amphenol Alden specialist today, [www.AmphenolAlden.com](http://www.AmphenolAlden.com)

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|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| <a href="#"><u>320056</u></a> | <a href="#"><u>107976</u></a> | <a href="#"><u>320483</u></a> | <a href="#"><u>320182</u></a> | <a href="#"><u>320679</u></a> | <a href="#"><u>320651</u></a>    | <a href="#"><u>320637</u></a> | <a href="#"><u>320630</u></a> | <a href="#"><u>320623</u></a> | <a href="#"><u>320616</u></a> | <a href="#"><u>320609</u></a> | <a href="#"><u>320602</u></a> | <a href="#"><u>320595</u></a> |
| <a href="#"><u>320588</u></a> | <a href="#"><u>321022</u></a> | <a href="#"><u>320455</u></a> | <a href="#"><u>320441</u></a> | <a href="#"><u>320434</u></a> | <a href="#"><u>320427</u></a>    | <a href="#"><u>320420</u></a> | <a href="#"><u>320413</u></a> | <a href="#"><u>320406</u></a> | <a href="#"><u>320399</u></a> | <a href="#"><u>320392</u></a> | <a href="#"><u>321008</u></a> | <a href="#"><u>320875</u></a> |
| <a href="#"><u>320847</u></a> | <a href="#"><u>320833</u></a> | <a href="#"><u>320826</u></a> | <a href="#"><u>320819</u></a> | <a href="#"><u>320812</u></a> | <a href="#"><u>320805</u></a>    | <a href="#"><u>320798</u></a> | <a href="#"><u>320791</u></a> | <a href="#"><u>320784</u></a> | <a href="#"><u>320126</u></a> | <a href="#"><u>320098</u></a> | <a href="#"><u>320084</u></a> | <a href="#"><u>320070</u></a> |
| <a href="#"><u>320042</u></a> | <a href="#"><u>320028</u></a> | <a href="#"><u>320014</u></a> | <a href="#"><u>320000</u></a> | <a href="#"><u>320980</u></a> | <a href="#"><u>108194-02</u></a> |                               |                               |                               |                               |                               |                               |                               |