PL-500SM-N SERIES

Plastic Shell Auto-Coupling Connectors

14 pole capacity miniature circular connector

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

Up to 14 Contact Positions

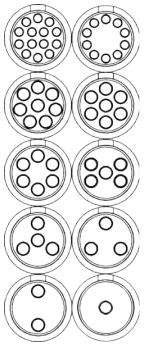


TABLE A: STANDARD CONTACT CONFIGURATIONS & SPECIFICATIONS

Number of Poles	Contact Size Pin Ø (mm)	Max Wire Gauge	Operating Voltage Max	Operating Current Max (A)*	Mated Contact Resistance (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



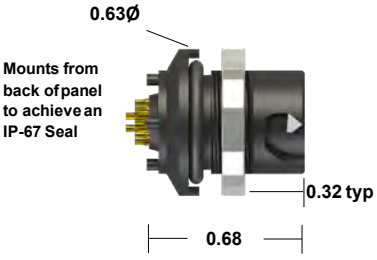
Shown with optional backshell

Cable Mount Receptacle Kit



Select this component from Table B

Rear Panel-Mount Receptacle Assembly



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

PL-500SM-N SERIES

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

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

Options Include:

Housing Color Options	Black (std.),Gray, White, Blue, Red, Green, Yellow
Mating Key Options	2 Standard Keys, Proprietary Keys Available
Panel-Mount Thickness Options	Up to .125 Standard

CONTACT TERMINATION OPTIONS

Receptacles & Cable Mount Plug

PCB (Panel-Mount Receptacles only)



Stand off height 0.05”
Pin length 0.125”

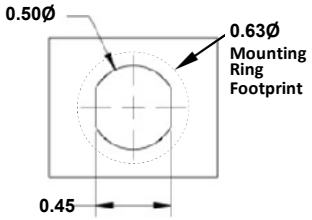
Request sales drawing for PCB Mounting Templates

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