



PL-500SM-N FEATURES

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

Packaging (intuitive, compact, configurable)

- Pulse-Lok® auto-latch / mating confirmation
- Miniature .520" diameter circular shell
- Up to 14 contact positions
- 14 standard color combinations
- Multiple and proprietary keying options
- Available as an overmolded cable assembly
- Custom configurations available

Performance (for harsh environments)

- Water proof (IP-67 rated)
- Steam, EtO, & Gamma sterilizable
- Chemical resistant housing
- Up to 5,000 mating cycles (with std. Contacts)
- Factory terminated, overmolded cable assemblies for enhanced flex and strain relief

SPECIFICATIONS

Electrical (see below)

Mating Life: 5,000 cycles min.
Contact Resistance: < 10 milliohms*

Material

Connector Housing: Nylon 12
Flex Reliefs: Thermoplastic Rubber
Contacts: Brass / BeCu,
Gold Plate per MIL-G-45204

Mechanical

Mating Cycles: 5K cycles max
Retention Force:

- Mated Connectors: 15 lbs. Minimum
- Cable to Connector: 25 lbs. Typical
- Backshell to Connector: 35 lbs. Minimum

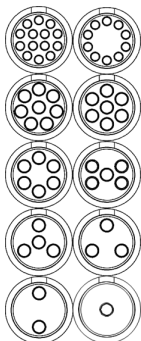
Environmental

- Operating Temp: -20C to +85C**
 - Moisture Resistance: to IP-67 (encapsulated)
 - Sterilizable: gamma, EtO & Autoclave
 - Chem. Resistance: common OR cleaning solvents
- * post conditioning
**Dependent on overmold material

TABLE A:

STANDARD CONTACT CONFIGURATIONS & SPECIFICATIONS

Up to 14 Contact Positions



Number of Poles	Contact Size Pin ϕ (mm)	Max Wire Gauge	Operating Voltage Max	Operating Current Max (A)	Contact Resistance (ohms)
14	0.5	26	300 V RMS	0.9	<14m
10	0.5	26	300 V RMS	1.2	<14m
8	0.7	22	300 V RMS	1.8	<6m
7	0.7	22	300 V RMS	2.1	<6m
6	0.7	22	300 V RMS	2.1	<6m
5	0.7	22	300 V RMS	2.4	<6m
4	0.7	22	300 V RMS	2.4	<6m
3	0.7	22	300 V RMS	3.0	<6m
2	0.7	22	300 V RMS	3.0	<6m
1	0.7	22	300 V RMS	3.0	<6m
1	1.5	16	300 V RMS	7.0	<2m

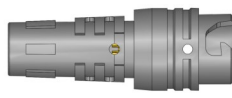
Custom contact inserts are available. Consult factory.

In-Line Receptacle Assembly



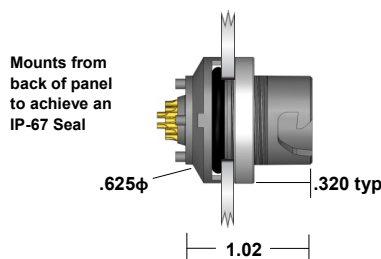
Shown with optional backshell

In-Line Receptacle Kit (for overmolding)



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 = .063 to .125
Select this component from Table B

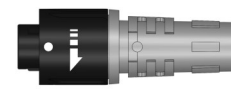
STANDARD HOUSING OPTIONS

In-Line Plug Assembly



Shown with optional backshell

In-Line Plug Kit (for overmolding)



Select this component from Table B

PL-500SM-N SERIES

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

TABLE B:

STANDARD PART NUMBERS

Number of Poles	In-Line Receptacle	Rear Panel-Mount Receptacle		In-Line 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

Mating Key Options

Panel-Mount Thickness Options

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

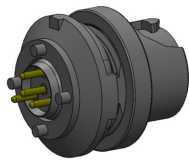
2 Standard Keys, Proprietary Keys Available

Up to .125 Standard

Receptacles & In-Line Plug

CONTACT TERMINATION OPTIONS

PCB (Panel-Mount Receptacles only)



Stand off height 0.050"
Pin length 0.125"

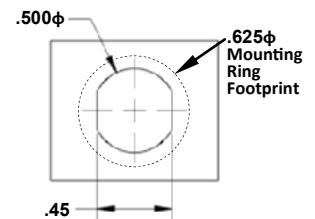
Request sales drawing for PCB Mounting Templates

Solder Cup (Available for All)



Tiered 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

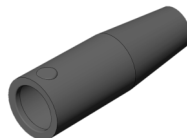


Receptacle Dust Cover



P/N 107976

Plug Backshell



P/N 108194-02

Plug Soaking Cap



P/N 112058-02

Note: accessories sold separately

ASSEMBLY INSTRUCTIONS

Receptacles:

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

AI-PL500SMN-IR02 (1Pole, 22AWG)

AI-PL500SMN-IR03 (2-8/10-14 Pole, 22/26AWG)

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

AI-PL500SMN-PMR02 (1Pole, 22AWG)

AI-PL500SMN-PMR03 (2-8/10-14 Pole, 22/26AWG)

Plugs:

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

AI-PL500SMN-P02 (1Pole, 22AWG)

AI-PL500SMN-P03 (2-8/10-14 Pole, 22/26AWG)