Amphenol Alden

PL-900SM-N SERIES

Plastic Shell Auto-Coupling Connectors

14 Pole capacity miniature power connector for overmolding

PL-900SM-N FEATURES

The PL-900SM-N is available in several power circuit configurations for industrial and medical electronic applications. This connector series is ideal for applications where safety, ease of use, and exposure to hostile environments are prevalent.

Packaging (intuitive, compact, configurable)

- ***Pulse-Lok®*** auto-latch / quick-release mechanism confirms continuity
- Concealed contacts meet IEC and UL safety specifications
- Available as a rugged overmolded cable assembly
- Polarized housing eliminates missmating
- 14 proprietary color combinations for coding

Performance (for harsh environments)

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

SPECIFICATIONS

Electrical (see below)
Mating Life: 5,000 cycles min.
High Current Ratings per UL/ANSI/EIA
Dielectric withstand Voltage: 2200V RMS (Contact to Contact, Contact to Outer Housing)
Insulation Resistance: Per ANSI/EIA-364-14

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

Mechanical
Mating Cycles: 5K cycles max
Retention Force:

- Mated Connectors: 50 lbs. Minimum
- Cable to Connector: 50 lbs. Typical
- Contact Barrel Wire Size: #12 to #22
- Contact Isolation: Probe @ 7lbs. Per IEC 60601-1

Environmental

- Operating Temp: -20C to +105C**
- Moisture Resistance: to IP-67 (IEC)
- Flammability Rating: UL94 V-0 (PL900SM-V only)
- Sterilizable: gamma, EtO & Autoclave
- Chem. Resistance: common OR cleaning solvents

** post conditioning*
**Dependent on overmold material

Up to 14 Contact Positions

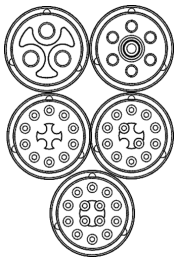


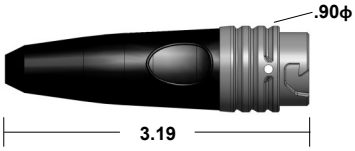
TABLE A: STANDARD CONTACT CONFIGURATIONS & SPECFICATIONS

Number of Poles	Contact Size Pin ϕ (mm)	Max Wire Gauge	Operating Voltage Max	Operating Current Max (A)	Contact Resistance (ohms)
14	0.7	22	600V AC/DC	5.0	<10m
12	0.7	22	600V AC/DC	5.0	<10m
10	0.7	22	600V AC/DC	5.0	<10m
7	1.5	16	600V AC/DC	15.0	<10m
3	2.4	12	600V AC/DC	30.0	<10m

Custom contact inserts are available. Consult factory.

STANDARD HOUSING OPTIONS

In– Line Receptacle Assembly

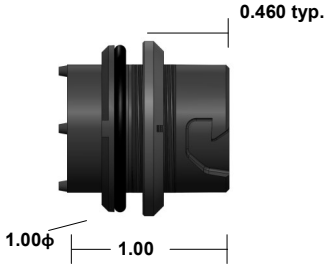


Shown with optional backshell (See Table C)

In-Line Receptacle (for overmolding)

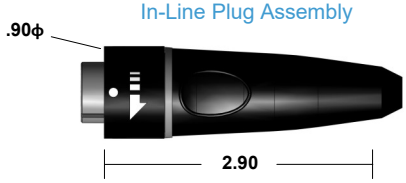
Select this component from Table B

Rear Panel-Mount Receptacle Assembly



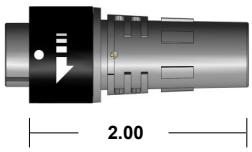
Panel Thickness Range = 0.063 to 0.250
Select this component from Table B

In-Line Plug Assembly



Showm with Overmolded Strain Relief

In-Line Plug (For overmolding)



Select this component from Table B

Connector housings are illustrated in gray with black couplers and backshells.
www.amphenolalden.com/configurator

Standard color is black on black. See our online configurator for color options at :
*All dimensions shown in inches except where indicated

PL-900SM-N SERIES

Plastic Shell Auto-Coupling Connectors ***14 pole*** *capacity for High Power Applications*

TABLE B: STANDARD PART NUMBERS

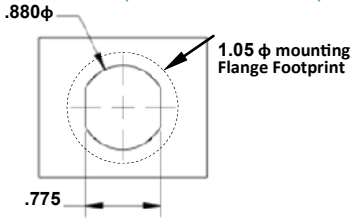
Number of Poles	In-Line Receptacle	Rear Panel-Mount Receptacle		In-Line Plug
	Solder Cup	Solder Cup	PCB	Solder Cup
14	340196	340518	340525	340112
12	340182	340490	340497	340084
10	340168	340462	340469	340056
7	340154	340448		340028
3	340140	340434		340000

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:

Indicator Color Options	Black (std.), Gray, White, Blue, Red, Green, Yellow
Mating Key Options	2 Standard Keys, Proprietary Keys Available
Panel-Mount Thickness Options	.187 (std.), .063, .187,.250
Contact Termination	Standard contact is equipped with a MIL crimp barrel suitable for soldering

Rear Panel-Mount Receptacle, Cut-Out Template

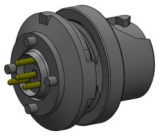


Press & Seal™ Contact System

- Contacts provide IP-67 watertight seal when inserted into insulator
- Easy crimp & poke installation
- Excellent contact retention
- Contacts may be crimped or soldered

- Available on 3 to 14-Pole Configurations
- Accepts multiple wire gauges 12, 16, 22 AWG

PCB (Panel-Mount Receptacles only)



Request Sales Drawing for PCB mounting template

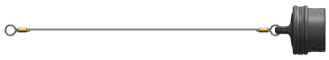
ACCESSORIES

Protective Connective Caps (IP-67 Seal Rating)

Panel-Mount Receptacle Dust Cover
(Nylon Tether locks into panel washer)

P/N **110401-01**

Plug Soaking Cap
(Wire Tether with cable loop)



P/N **111179-01**

In-Line Receptacle Dust Cover
(Wire Tether with cable loop)

P/N **111026-01**

Panel-Mount Receptacle Dust Cover:

The PL-900 Series receptacle dust cover protects the receptacles contact system from dust, moisture, and mechanical stress when the connector pair is disengaged. When secured the dust cover will provide an IP-67 environmental seal. The cover is equipped with a tether for security.

Receptacle Dust Cover
(Without Wire Tether)

P/N **107522-01**

Plug Soaking Cap
(Without Wire Tether)

P/N **107521-01**

Note: Black (std.) Gray (opt.)

Plug Soaking Cap:

The PL-900 Series Plug Soaking Cap is designed to protect the plug's contact system when a cable assembly is being cleaned or not in use. The soaking cap locks onto the plug providing an IP-67 seal that is ideal for soaking lin liquid disinfectants. The soaking cap can be permanently attached to a a cable assembly by means of a light weight tether.

ASSEMBLY INSTRUCTIONS

Receptacles:

AI-PL900SMN-ILR01 (3Pole, 12AWG)

AI-PL900SMN-ILR02 (7Pole, 16AWG)

AI-PL900SMN-ILR03 (10-14Pole, 22AWG)

AI-PL900SMN-RPM01 (3Pole, 12AWG)

AI-PL900SMN-RPM02 (7Pole, 16AWG)

AI-PL900SMN-RPM03 (10-14Pole, 22AWG)

Plugs:

AI-PL900SMN-P01 (3Pole, 12AWG)

AI-PL900SMN-P02 (7Pole, 16AWG)

AI-PL900SMN-P03 (10-14Pole, 22AWG)