

PL-900SM-N SERIES

Plastic Shell Auto-Coupling Connectors

14 pole capacity miniature power connector for overmolding

PL-900SM-N FEATURES

The compact PL-900 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 of primary consideration.

Packaging (intuitive, compact, configurable)

- Pulse-Lok auto-latch/quick-release mechanism confirms continuity
- Concealed Contacts meet IEC and UL safety specifications
- Press & Seal contact system

- Available as a rugged overmolded cable assembly
- Polarized Housing eliminates mis mating
- Up to 14 standard color combinations for coding

Performance (for harsh environments)

- Water Proof, seals to cable
- Impact Resistant plastic housing
- Chemical Resistant
- Shock Proof housing design
- High Performance flex relief extends cable life and strain 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: PL 900SM-N = Nylon

Flex Reliefs: TPR

Contacts: Pins = Brass, Sockets = Bronze Alloy
 Contact Plating: Gold per MIL-G-45204C

Mechanical

Mating Cycles: 20K cycles max
 Retention Force:
 • Mated Connectors: 50 lbs. Minimum
 • Cable to Connector: to 50 lbs. typical
 • Contact Barrel Wire Size: #12 to #22
 • Contact Isolation: Probe @ 7lb. Per IEC 60601-1

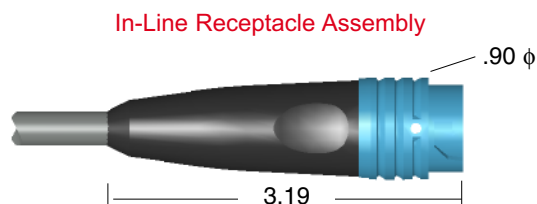
Environmental

- Operating Temp: -20C to +105C
- Moisture Resistance: IP-67 (IEC)
- Flammability Rating: UL94 V-0 (PL-900SM-V only- see Table B)
- Chemical Resistance: Common industrial solvents (consult factory)
- Sterilizable (PL-900SM-N only- see Table B)

TABLE A: STANDARD CONTACT CONFIGURATIONS & SPECIFICATIONS

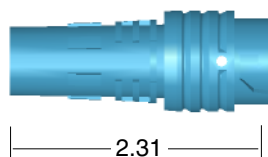
Number of Poles	Contact Size Pin ϕ (mm)	Max Wire Gauge	Rated Current	Rated Voltage	Contact Resistance
14	0.7	22	5	600V AC/DC	< 10m ohms
12	0.7	22	5	600V AC/DC	< 10m ohms
10	0.7	22	5	600V AC/DC	< 10m ohms
7	1.5	16	15	600V AC/DC	< 10m ohms
3	2.4	12	30	600V AC/DC	< 10m ohms

Up to 14 contact positions



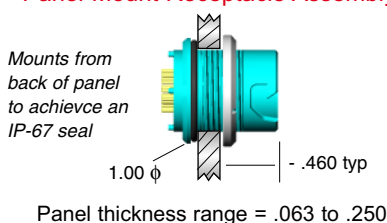
Shown with overmold flex relief (Refer to PLSeries Overmolding Guide)

In-Line Receptacle (for overmolding)

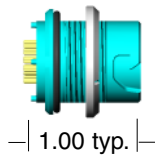


Select this component from Table B

Panel-Mount Receptacle Assembly

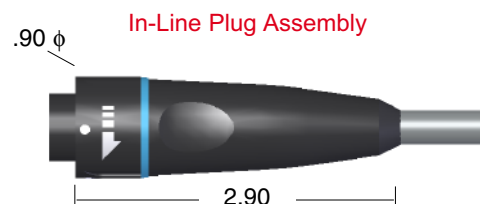


Panel-Mount Receptacle



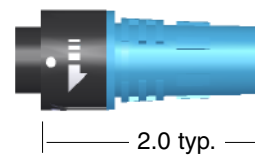
Select this component from Table B

STANDARD HOUSING OPTIONS



Shown with overmolded flex relief (Refer to PL Series Overmolding Guide)

In-Line Plug (for overmolding)



Select this component from Table B

Connector housings are illustrated in blue with gray couplers and backshells. Standard color is black on black. See our online configurator for color options at: www.aldenproducts.com/configurator All dimensions shown in inches.

For additional information about this, or any other Alden product, please contact an Alden Products specialist today.

Phone: 508-427-7000
 Fax: 508-583-0164
www.aldenproducts.com

TABLE B:

STANDARD PART NUMBERS

Number of Poles	In-Line Receptacle	Panel-Mount Receptacle	In-Line Plug
14	340196	340294	340112
12	340182	340266	340084
10	340168	340238	340056
7	340154	340224	340028
3	340140	340210	340000

Note: Part numbers cover black housings in Key 1 configuration. For other color and housing options utilize the Alden connector configurator located @ www.aldenproducts.com/configurator

Options Include:

Housing Color Options

Mating Key Options

Standard Panel-Mount Thickness

Contact Termination

Black, Gray, White, Blue, Red, Green, Yellow

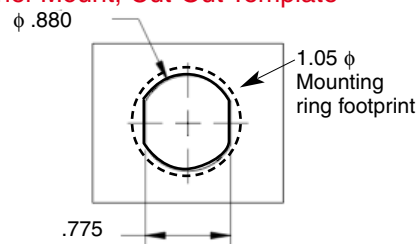
2 Standard Keys, Proprietary Keys Available

.187"

Standard contact is equipped with a MIL crimp barrel suitable for soldering

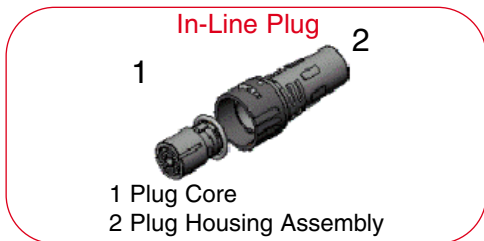
Assembly Instructions AI-PL900-03 In-Line Plug for overmolding
 AI-PL900-02 Panel-Mount Receptacle
 Available at: www.aldenproducts.com

Panel-Mount, Cut-Out Template



CONNECTOR ASSEMBLY TOOLS

In-Line Plug



Item	Alden P/N	Description	Application
1	390057	22AWG Insertion Tool	Pin to Plug Core
2	T-831	16AWG Insertion Tool	Pin to Plug Core
3	390020	12AWG Insertion Tool	Pin to Plug Core
4	T-706	Loading Nest	Plug Core Support Base
5	390040	Pneumatic Crimper	Contact Termination Tool
6	390041	Stand for Pneumatic Crimper	Contact Termination Tool
7	390035	Hand Crimper	Contact Termination Tool
8	390032	Size - #12 Crimp Die	Contact Termination Tool
9	390031	Size - #16 Crimp Die	Contact Termination Tool
10	390030	Size - #22 Crimp Die	Contact Termination Tool

Receptacle



Item	Alden P/N	Description	Application
1	390056	22AWG Insertion Tool	Socket to Receptacle Core
2	T-831	16AWG Insertion Tool	Socket to Receptacle Core
3	390020	12AWG Insertion Tool	Socket to Receptacle Core
4	T-705	Loading Nest	Receptacle Core Support Base
5	T-701	Insertion Tool	Receptacle Core to Housing
6	390040	Pneumatic Crimper	Contact Termination Tool
7	390041	Stand for Pneumatic Crimper	Contact Termination Tool
8	390035	Hand Crimper	Contact Termination Tool
9	390032	Size - #12 Crimp Die	Contact Termination Tool
10	390031	Size - #16 Crimp Die	Contact Termination Tool
11	390030	Size - #22 Crimp Die	Contact Termination Tool

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ACCESSORIES

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Protective Connective Caps (IP-67 Seal Rating)

Panel 1

Panel-Mount Receptacle
Nylon tether locks into panel washer



107522-88

In-Line Receptacle
Wire tether with cable loop



107523-88

In-Line Plug
Wire tether with cable loop



107521-88

Part numbers cover black cap moldings - gray optional.

Panel-Mount Receptacle Dust Cover

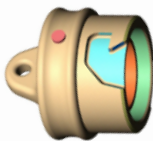


Alden P/N 107522-01
Standard color is black. Gray optional

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.

Plug Soaking Cap



Alden P/N 107521-01
Standard color is black. Gray optional

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 in liquid disinfectants. The soaking cap can be permanently attached to a cable assembly by means of a light weight tether.