

# Amphenol Alden

## PL-900RG-N SERIES

### Plastic Shell Auto-Coupling Connectors

52 pole capacity disposable receptacle and support interconnects

#### PL-900RG-N FEATURES

Specifically designed for electro-surgical catheter applications, the compact and cost effective PL-900 Series offers more features, contacts, and termination options than the competition.

#### Packaging (intuitive, compact, configurable)

- Pulse-Lok® auto-latch / mating confirmation mechanism confirms continuity in critical surgical applications
- 14 standard color combinations
- Proprietary keying protects your single-use from being copied, or mated with the wrong connector
- Custom configurations including passive and active devices for coding or limiting catheter usage

#### 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.  
Contact Resistance: < 10 milliohms\*

#### Material

Connector Housing: Thermoplastic  
Flex Reliefs: Thermoplastic Rubber  
Contacts/Sockets: Brass / BeCu,  
Gold Plate per MIL-G-45204  
Reusable Socket = 30-45µ" Gold over 50-200µ" Nickel strike  
Disposable Pin = 10-30µ" Gold over 50-200µ" Nickel strike

#### Mechanical

Mating Cycles: 5K cycles max  
Retention Force:  
• Mated Connectors: 50 lbs. Minimum  
• Cable to Connector: 50 lbs. Typical  
• Backshell to Connector: 50 lbs. Minimum

#### Environmental

- Operating Temp: -20C to +85C\*\*
- Moisture Resistance: to IP-67 (encapsulated)
- Sterilizable: gamma, EtO & Autoclave
- Chem. Resistance: common OR cleaning solvents
- Shelf Life: 3 years (min) Disposable Connectors

\* post conditioning

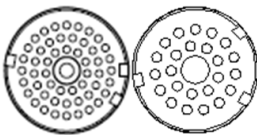
\*\*Dependent on overmold material

TABLE A:

STANDARD CONTACT CONFIGURATIONS & SPECIFICATIONS

| Number of Poles | Contact Size Pin $\phi$ (mm) | Max Wire Gauge | Operating Voltage Max | Operating Current Max (A) | Contact Resistance (ohms) |
|-----------------|------------------------------|----------------|-----------------------|---------------------------|---------------------------|
| 52              | 0.5                          | 26             | 300 V RMS             | 2.0                       | <10m                      |
| 41              | 0.5                          | 22             | 300 V RMS             | 2.0                       | <10m                      |
| 35              | 0.5                          | 26             | 300 V RMS             | 2.0                       | <10m                      |
| 28              | 0.5                          | 26             | 300 V RMS             | 2.0                       | <10m                      |
| 24              | 0.5                          | 26             | 300 V RMS             | 2.0                       | <10m                      |
| 24              | 0.7                          | 22             | 300 V RMS             | 5.0                       | <10m                      |
| 17              | 0.5                          | 26             | 300 V RMS             | 2.0                       | <10m                      |
| 15              | 0.7                          | 22             | 300 V RMS             | 5.0                       | <10m                      |
| 11              | 0.5                          | 26             | 300 V RMS             | 2.0                       | <10m                      |
| 9               | 0.7                          | 22             | 300 V RMS             | 5.0                       | <10m                      |

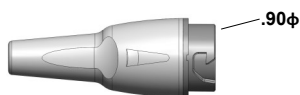
#### Up to 52 Contact Positions



Custom contact inserts are available. Consult factory.

#### STANDARD HOUSING OPTIONS

#### Disposable Receptacle Assembly



2.37

Shown with optional backshell (See Table C)

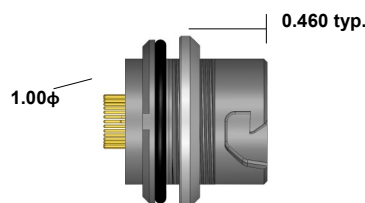
#### Disposable Receptacle



1.05

Select this component from Table B

#### Rear Panel-Mount Receptacle Assembly



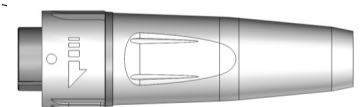
1.02

Panel Thickness Range = 0.063 to 0.250

Select this component from Table B

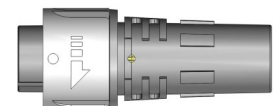
.90φ

#### In-Line Plug Assembly



2.90

Shown with Overmolded Strain Relief  
In-Line Plug Kit (For overmolding)



2.00

Select this component from Table B

Connector housings and backshells are illustrated in light gray with gray couplers. Standard color is black on black. \*All dimensions shown in inches except where indicated

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

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

# PL-900RG-N SERIES

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TABLE B:

STANDARD PART NUMBERS

| Number of Poles | Disposable Receptacle |        | Rear Panel-Mount Receptacle |        | In-Line Plug |
|-----------------|-----------------------|--------|-----------------------------|--------|--------------|
|                 | Solder Cup            | PCB    | Solder Cup                  | PCB    | Solder Cup   |
| 52              | 341406                | 342946 | 342512                      | 342519 | 341252       |
| 41              | 341392                | 342932 | 342484                      | 342491 | 341224       |
| 35              | 341378                | 342918 | 342456                      | 342463 | 341196       |
| 28              | 341364                | 342904 | 342428                      | 342435 | 341168       |
| 24 (26AWG)      | 341350                | 342890 | 342541                      | 342407 | 341140       |
| 24 (22AWG)      | 341336                | 342876 | 342372                      | 342379 | 341112       |
| 17              | 341322                | 342862 | 342344                      | 342351 | 341084       |
| 15              | 341308                | 342848 | 342316                      | 342323 | 341056       |
| 11              | 341294                | 342834 | 342288                      | 342295 | 341028       |
| 9               | 341280                | 342820 | 342260                      | 342267 | 341000       |

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:**

Indicator Color Options

Mating Key Options

Panel-Mount Thickness Options

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

2 Standard Keys, Proprietary Keys Available

.125 (std.), .063, .187, .250

CONTACT TERMINATION OPTIONS

Termination Styles

Panel 1

Pin Length & Application



Intended for termination to flex circuit

Pin Length & Applications



Intended for mounting on rigid PC Board

Flex Circuits Benefits

Facilitates the automated internal application of passive and active electronic components

Facilitates the introduction of automated mass termination techniques. These termination methods are extremely cost effective when terminating 52 pole connectors

Panel 2

PCB (Panel-Mount Receptacles only)



Request Sales Drawing for PCB mounting template

Features & Benefits

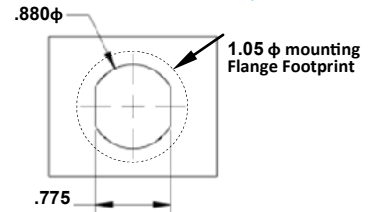
- Available in most pole counts from 9 to 52 Poles
- PCB stand-offs ensure proper positioning
- Convenient packaging high temperature contact cures may be soldered to PCB and snapped into panel-mounted receptacle housing later



Features & Benefits

Tiered solder cups provide easy access to center positions. Canted cups facilitate quick and easy wire positioning. Standard on 9-52 pole configurations

Panel-Mount, Cut-Out Template



Applies to Rear Panel-Mount Receptacles

ASSEMBLY INSTRUCTIONS

**Receptacles:**

AI-PL900RGN-ILR01 (3Pole, 12AWG)

AI-PL900RGN-ILR02 (7Pole, 16AWG)

AI-PL900RGN-ILR03 (10-14Pole, 22AWG)

AI-PL900RGN-RPM01 (3Pole, 12AWG)

AI-PL900RGN-RPM02 (7Pole, 16AWG)

AI-PL900RGN-RPM03 (10-14Pole, 22AWG)

**Plugs:**

AI-PL900RGN-P01 (3Pole, 12AWG)

AI-PL900RGN-P02 (7Pole, 16AWG)

AI-PL900RGN-P03 (10-14Pole, 22AWG)

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TABLE C:

## ACCESSORIES

### Backshell



(Wire exit i.d.)

### Dimension A

| Dimension A | Part Number |
|-------------|-------------|
| 0.140       | 107307-01   |
| 0.166       | 107307-08   |
| 0.180       | 107307-15   |
| 0.210       | 107307-22   |
| 0.260       | 107307-29   |

### Part Number

### Disposable Receptacle Backshell:

In applications where the disposable receptacle is attached directly to a cable or catheter this one piece backshell is available to protect light gauge wire terminations and provide an anchor point for the catheter jacket. These backshells snap into place and may be encapsulated

Standard color is black. Gray is optional.

### 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

#### 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.

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