ALDEN
CONNECT OUTSIDE THE BOX

PL-1200RG-N SERIES
Plastic Shell Auto-Coupling Connectors
78 pole capacity interconnect system

PL-1200RG-N FEATURES

Specifically designed for electro-surgical catheter applications, the compact and cost effective PL-1200 Series offers more features, contacts, and termination options than the competition.

Packaging (intuitive, compact, configurable)
• Pulse-Lok® auto-latch / quick release 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 available including passive and active devices for coding or limiting catheter usage

Performance (for harsh environments)
• Water proof
• 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 Table A)
Mating Life: 5,000 cycles min.
Contact Resistance: < 10 milliohms*

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

Mechanical
Mating Cycles: 20K cycles max
Retention Force (axial):
• Mated Connectors: 50 lbs. Minimum
• Cable to Connector: to 50 lbs. typical
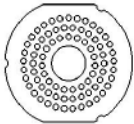• Backshell to Connector: 50 lbs. Minimum

Environmental
• Operating Temp: -20C to +105C
• Moisture Resistance: to IP-67
• Sterilizable: steam, gamma & EtO
• Chem. Resistance: common OR cleaning solvents
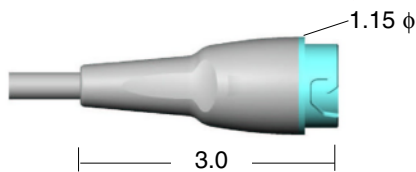
* post conditioning

TABLE A: AVAILABLE CONTACT CONFIGURATIONS & SPECIFICATIONS

Up to 78 contact positions

Number of Poles	Contact Size Pin φ (mm)	Max Wire Gauge	Operating Voltage max	Operating Current Max	Contact Resistance
78	0.5	26	300 V RMS	1.0 A	< 10m ohms
59	0.5	26	300 V RMS	1.0 A	< 10m ohms
52	0.5	26	300 V RMS	1.0 A	< 10m ohms
45	0.5	26	300 V RMS	1.0 A	< 10m ohms
26	0.5	26	300 V RMS	1.0 A	< 10m ohms
19	0.5	26	300 V RMS	1.0 A	< 10m ohms

STANDARD HOUSING OPTIONS

Disposable Receptacle Assembly

— 1.15 φ
3.0

Shown with optional backshell (See Table C)

Panel-Mount Receptacle Assembly

Mounts from back of panel to achieve an IP-67 seal

.290 typ -   - .460 typ

Panel thickness range = .063 to .250

In-Line Plug Assembly

1.15 φ

3.30
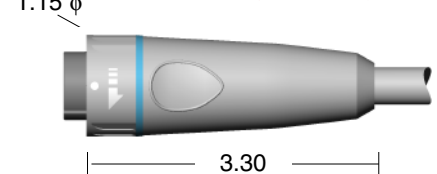
Shown with Overmolded Strain Relief (Refer to PL Series Overmolding Guide)

Disposable Receptacle

— 1.00 —

Select this component from Table B

Panel-Mount Receptacle

— 1.00 —

Select this component from Table B

In-Line Plug (for overmolding)

— 2.0 —
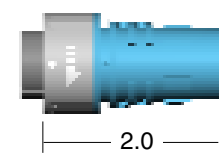
Select this component from Table B

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
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PL-1200RG-N SERIES
Plastic Shell Auto-Coupling Connectors   78 Pole Capacity Interconnect System

TABLE B: STANDARD PART NUMBERS

Number of Poles	Disposable Receptacle	Panel-Mount Receptacle		In-Line Plug
	Solder Cup See Panel 3	Solder Cup See Panel 3	PCB See Panel 2	Solder Cup See Panel 3
78	380588	380700	380707	380000
59	380532	380728	380735	380056
52	380504	380756	380763	380112
45	380476	380784	380791	380168
26	380448	380812	380819	380224
19	380420	380840	380847	380280

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   Black, Gray, White, Blue, Red, Green, Yellow
Mating Key Options   2 Standard Keys, Proprietary Keys Available
Panel-Mount Thickness Options   Up to .187 Standard

CONTACT TERMINATION OPTIONS

PCB Terminations   Disposable Receptacle & In-Line Plug   Panel 1

Pin Length & Application

Ø.340 B.C.
18 holes
Ø.466 B.C.
26 holes
Ø.580 B.C.
33 holes

Hole dia.
.024 +/- .01
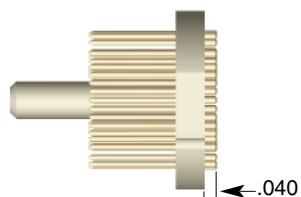
Intended for termination to flex circuit

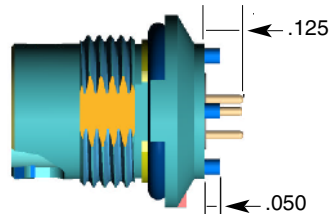### Flex Circuit Mounting Template
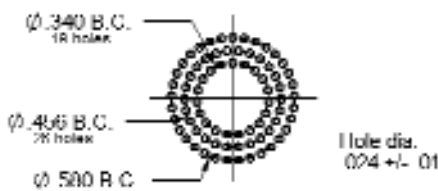
Flex Circuit Benefits

• 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 78 pole connectors.
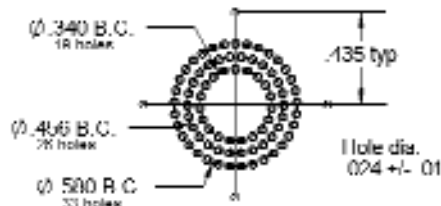
PCB Terminations   Panel-Mount Receptacle   Panel 2
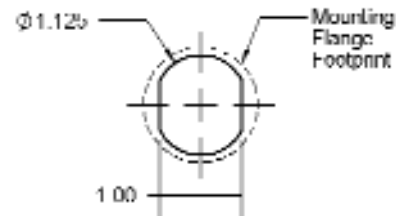
Pin Length & Application

.125

.050

Intended for mounting on rigid PC Board

Printed Circuit Board Mounting Template

Ø.340 B.C.
18 holes
.135 typ
Ø.466 B.C.
26 holes
Ø.580 B.C.
33 holes

Hole dia.
.024 +/- .01

Panel-Mount, Cut-Out Template

Ø1.125
Mounting Flange Footprint
1.00

Solder Terminations   Disposable Receptacle, PanelMount Receptacle, & In-Line Plug   Panel 3

Solder Cup

Tiered solder cups provide easy access to center positions

Canted cups facilitate quick and easy wire positioning

For wires up to 26 AWG

ACCESSORIES

TABLE C: *DISPOSABLE RECEPTACLE BACKSHELLS*

Disposable Receptacle Backshell

A (wire exit i.d.)

Standard color is black. Gray is optional.
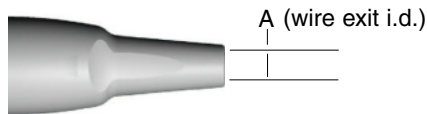
Dimension A	Color	Alden P/N
0.260"	Black	107802-01
0.260"	Gray	107802-02

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.

Disposable Receptacle Accessories

Description	Part Number
Bulkhead Seal	107912
Hex Mounting Nut	107911

Disposable Receptacle Mounting Accessories -
For applications where the disposable receptacle housing is mounted directly onto an enclosure or hand piece an o-ring seal is available to environmentally secure this interface. A light weight hex nut is also available for mounting this housing to a panel.

2.65   φ .540 cable exit
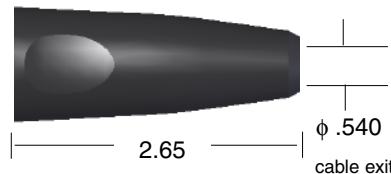
Alden P/N 108552-01
Standard material is black PVC

Completes PL-1200 Plug Assembly

Panel-Mount Receptacle Dust Cover

Alden P/N 109767-01   (Consult Factory)
Standard color is black. Gray optional

Panel-Mount Receptacle Dust Cover -
The PL-1200 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 109766-01   (Consult Factory)
Standard color is black. Gray optional

Plug Soaking Cap -
The PL-1200 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.

CONNECTOR ASSEMBLY TOOLS

Assembly instructions available at: www.aldenproducts.com

Disposable Receptacle

1 Receptacle Housing
2 Pin Insert

Receptacles

Item	Alden P/N	Description	Application
1	T-881	Installation Tool, Hand	Pin Insulator to Housing
2	T-904	Installation Tool, Arbor	Pin Insulator to Housing
3	T-882	Installation Tool, Arbor	Backshell to Housing
4	T-924	Soldering Fixture/Template	Pin Identification and Termination
5	390049	Solder Fixture	Fastening Panel-Mount Spanner Ring

In-Line Plug

1 Plug Core
2 Plug Housing Assembly

In-Line Plug

Item	Alden P/N	Description	Application
1	T-883	Installation Tool, Arbor	Contact Insulator to Housing
2	T-923	Soldering Fixture/Template	Contact Identification and Termination
2	T-915	Installation Tool, Arbor	Backshell to Housing

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

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