# **Amphenol** Alden

PL-500FI SERIES Plastic Shell Auto-Coupling Connectors **14 pole** capacity miniature circular

field installable connector



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

### Packaging (intuitive, compact, configurable) Performance (for harsh environments)

- 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

- 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

#### **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 Retention Force:

- Mated Connectors: 15 lbs. Minimum
- Cable to Connector: 25 lbs. Typical
- · Backshell to Connector: 35 lbs. Minimum Cable Diameter range = .115 to .250

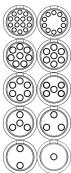
#### **SPECIFICATIONS Environmental**

- Operating Temp: -40C to +105C\*\*
- 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 & SPECFICATIONS

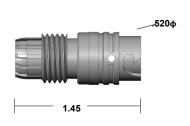
## **Up to 14 Contact Positions**



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

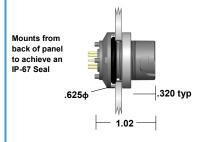
Custom contact inserts are available. Consult factory.

#### **In-Line Receptacle Assembly**



Select this component from Table B

### **Rear Panel-Mount** Receptacle Assembly



Panel thickness range = .063 to .125 Select this component from Table B

#### STANDARD HOUSING OPTIONS

#### **In-Line Plug Assembly**



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-500FI SERIES**

Plastic 14 pole capacity miniature circular field installable connector

#### TABLE B:

#### STANDARD PART NUMBERS

Number of Poles	In-Line Receptacle	Rear Panel-Mo	In-Line Plug	
	Solder Cup	Solder Cup	PCB	Solder Cup
14	327104	327212	327204	327004
10	324100	327208	327200	327000
8	324140	327276	327280	327040
7	327136	327268	327272	327036
6	327132	327220	327264	327032
5	327110	327228	327218	327010
4	327112	327236	327224	327012
3	327116	327236	327232	327016
2	327120	327244	327240	327020
1 (22 AWG)	327124	327252	327248	327024
1 (16 AWG)	327128	327260	327256	327028

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 2 Standard Keys, Proprietary Keys Available

Up to .125 Standard

#### **CONTACT TERMINATION OPTIONS**

### Receptacles & In-Line Plug

PCB (Panel-Mount Receptacles only)



Request sales drawing for PCB

Mounting Templates

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Stand off height 0.050"

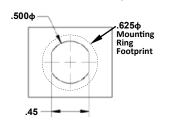


Tiered solder cups provide easy access to center positions.

Canted cups facilitate quick and easy wire positioning.

Standard on 2-14 pole configurations

#### Panel-Mount, Cut-Out Template



ACCESSORIES

Receptacle Dust Cover



P/N **107976** 

Plug Soaking Cap



P/N **112058-02** 

Note: accessories sold separately

ASSEMBLY INSTRUCTIONS

#### Receptacles:

AI-PL500FI-IR01 (1Pole, 16AWG)

AI-PL500FI-IR02 (1Pole, 22AWG)

AI-PL500FI-IR03 (2-8/10-14 Pole, 22/26AWG)

AI-PL500FI-PMR01 (1Pole, 16AWG)

AI-PL500FI-PMR02 (1Pole, 22AWG)

AI-PL500FI-PMR03 (2-8/10-14 Pole, 22/26AWG)

#### Plugs:

AI-PL500FI-P01 (1Pole, 16AWG)

AI-PL500FI-P02 (1Pole, 22AWG)

AI-PL500FI-P03 (2-8/10-14 Pole, 22/26AWG)

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