

PL-700SM-B FEATURES



The **Pulse-Lok®** 700SM-B Series connector is Amphenol Alden's most robust offering in a sub .700" diameter package. The metal housings are perfect in protecting against a harsh and EMI/RFI environments.

Overview (intuitive, compact, configurable)

- **Pulse-Lok®** auto-latch / mating confirmation
- Miniature .700" diameter circular shell
- Up to 27 contact positions
- 3 various pad print color options
- Multiple standard and proprietary keying options

Order as a full cable assembly (Consult Factory)

- Single or double ended
- Customize your cable bundle
- Overmolded strain relief
- Add components to fulfill requirements

SPECIFICATIONS

Material

Connector Housing: Nickel Plated Brass
Molded Core Insulator:
Polyamide 12 (LV3H) (1P-7P)
LCP (10P-27P)
Contacts: Brass/Phosphor Bronze
• 30µ" Gold over 50µ" Nickel
Flammability Rating
• Molded Contact Insulator (core):
UL94 V-0

Mechanical

Mating Cycles: 5,000
Mating Force:
• Mate: 17.5 lbs. Max
• Un-mate: 3 lbs. Max
• Unintended Extraction: 30 lbs. Min.
• Backshell withdrawal: 5 lbs. Min.***

Environmental

- Operating Temp: -20C to +125C**
- Moisture Resistance: to IP-67 (mated)
- Sterilizable: EtO, Autoclave, STERRAD®**
- Chem. Resistance: common OR cleaning solvents

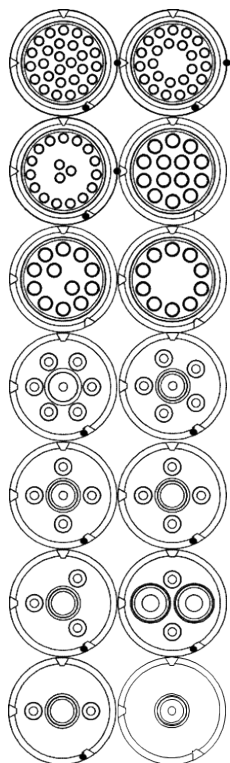
**Dependent on overmold material

***Backshell sold separately

TABLE A:

STANDARD CONTACT CONFIGURATIONS & SPECIFICATIONS

Up to 27 Contact Positions



Number of Poles	Contact Size Pin ϕ (mm)	Max Wire Gauge	Operating Voltage Max	Operating Current Max (A)*	Contact Resistance (m Ω)
27	0.5	26	300 V RMS	2.0	<50
24	0.5	26	300 V RMS	2.0	<50
18	0.5	26	300 V RMS	2.0	<50
14	0.7	22	300 V RMS	3.0	<50
12	0.7	22	300 V RMS	3.0	<50
10	0.7	22	300 V RMS	3.0	<50
7	0.7	22	300 V RMS	3.0	<50
6	0.7	22	300 V RMS	3.0	<50
5	0.7	22	300 V RMS	3.0	<50
4	0.7	22	300 V RMS	3.0	<50
2+2	2(1.5)-2(0.7)	2(16)-2(22)	300 V RMS	5.0/3.0	<50
3	0.7	22	300 V RMS	3.0	<50
2	0.7	22	300 V RMS	3.0	<50
2	1.5	16	300 V RMS	5.0	<50
1	0.7	22	300 V RMS	3.0	<50
1	2.3	12	300 V RMS	16.0	<50

*30C Heat Rise Limit

Custom contact inserts are available. Consult factory.

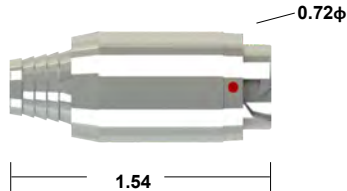
PL-700SM-B SERIES

Metal Shell Auto-Coupling Connectors 27 pole capacity circular shell connectors

STANDARD HOUSING OPTIONS

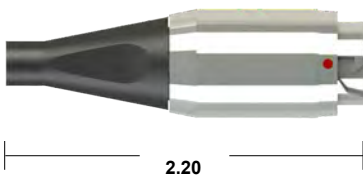
Cable Mount Receptacles

Cable Mount Receptacle Kit



Select this component from Table B

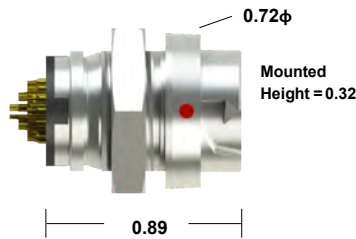
Cable Mount Receptacle Assembly (w/ optional Press & Seal™ Backshell)



Select Press & Seal™ Backshell from Table C

Panel-Mount Receptacles

Front Panel-Mount Receptacle Assembly



Panel thickness range to 0.187
Select this component from Table B

Cable Mount Plugs

Cable Mount Plug Kit



Select this component from Table B

Cable Mount Plug Assembly (w/ optional Press & Seal™ Backshell)



Select Press & Seal™ Backshell from Table C

TABLE:

STANDARD PART NUMBERS

Number of Poles	Cable Mount Receptacle	Front Panel-Mount Receptacle		Cable Mount Plug
	Solder Cup	Solder Cup	PCB	Solder Cup
27	357062	356062	356149	355062
24	357131	356131	356209	355131
18	357125	356125	356203	355125
14	357048	356048	356143	355048
12	357119	356119	356197	355119
10	357113	356113	356191	355113
7	357034*	356028*	356137*	355028*
6	357107*	356107*	356185*	355072*
5	357101*	356071*	356179*	355071*
4	357095*	356095*	356173*	355095*
2(16)+2(22)	357020*	356020*		355020*
3	357089*	356089*	356167*	355089*
2 (22)	357080*	356080*	356161*	355080*
2 (16)	357077*	356077*		355077*
1 (22)	357071*	356101*	356155*	355101*
1 (12)	357006*	356006*		355006*

Note: Dimensions are stated in inches unless noted otherwise.

Note: Part numbers cover metal 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 Red (Std.), White, Black
Mating Key Options 2 Standard Keys, Proprietary Keys Available
Panel-Mount Thickness Options Up to .125 Standard

*Press & Seal™ contacts, crimp or solder termination

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

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PL-700SM-B SERIES

Metal Shell Auto-Coupling Connectors 27 pole capacity circular shell connectors

CONNECTOR TERMINATION OPTIONS

Contact Termination

Press & Seal™ Features & Benefits

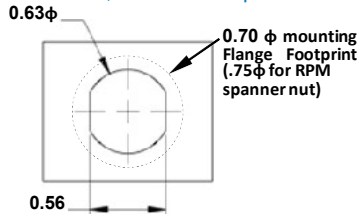
- Contacts provide IP-67 watertight seal when inserted into insulator
- Easy crimp & poke installation
- Excellent contact retention
- Contacts may be crimped or soldered

Press & Seal™ Contact System



- Available on 1 to 7-Pole Configurations
- Accepts multiple wire gauges 12, 16, 22 AWG

Panel-Mount, Cut-Out Template



Applies to both Front & Rear Panel-Mount Receptacles

Solder Cup (Available for All)



Features & Benefits

Tiered solder cups provide easy access to center positions. Canted cups facilitate quick and easy wire positioning. Standard on 10-27 pole configurations

PCB (Panel-Mount Receptacles only)



Request Sales Drawing for PCB mounting template

Features & Benefits

- Available in most pole counts from 1 to 27 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

Front Panel-Mount Receptacle Dust Cover



P/N 300390

Backshell



Plug Soaking Cap



P/N 300391

The PL-700 plug housing is designed to accept Amphenol Alden's one piece, Press & Seal PVC Backshell. This unique backshell simply snaps into place providing an IP-67 rated seal to the plug housing and cable exit without hardware resulting in a clean overmolded look. For optimum sealing we suggest selecting a wire exit i.d. that is at least .005" smaller than your nominal cable diameter .

TABLE C:

ACCESSORIES

Dimension A (Inches)	Part #	
	(Black)	(Gray)
0.053	300350	300351
0.064	300352	300353
0.075	300354	300355
0.086	300356	300357
0.096	300358	300359
0.104	300360	300361
0.120	300362	300363
0.129	300364	300365
0.142	300366	300367
0.153	300368	300369
0.162	300370	300371
0.170	300372	300373
0.186	300374	300375
0.204	300376	300377
0.215	300378	300379
0.225	300380	300381
0.235	300382	300383
0.249	300384	300385
0.264	300386	300387
0.300	300388	300389

Note: Black (std.) Gray (optional) & accessories sold separately

Cable Mount Receptacle Instructions:

- AI-PL700SMB-IR01 (1Pole, 12AWG)
- AI-PL700SMB-IR02 (2+2Pole, 16/22AWG)
- AI-PL700SMB-IR03 (1-7Pole, 22AWG)
- AI-PL700SMB-IR04 (10-14Pole, 22AWG)
- AI-PL700SMB-IR05 (18-27Pole, 26AWG)
- AI-PL700SMB-PMR01 (1Pole, 12AWG)

Panel-Mount Receptacle Instructions:

- AI-PL700SMB-PMR02 (2+2Pole, 16/22AWG)
- AI-PL700SMB-PMR03 (1-7Pole, 22AWG)
- AI-PL700SMB-PMR04 (10-14Pole, 22AWG)
- AI-PL700SMB-PMR05 (18-27Pole, 26AWG)

Cable Mount Plug Instructions:

- AI-PL700SMB-P01 (1Pole, 12AWG)
- AI-PL700SMB-P02 (2+2Pole, 16/22AWG)
- AI-PL700SMB-P03 (1-7Pole, 22AWG)
- AI-PL700SMB-P04 (10-14Pole, 22AWG)
- AI-PL700SMB-P05 (18-27Pole, 26AWG)

ASSEMBLY INSTRUCTIONS

Note: recommended tooling included in assembly instructions

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

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