

D-Sub Waterproof Connectors

D-SUB WATERPROOF CONNECTORS STANDARD AND HIGH DENSITY

Amphenol ICC's IP67 Waterproof D-Sub product line offers the terminations for board and cable ends, bringing down the overall cost of cable assembly and connectors significantly. The terminations include straight and right angle for board side and solder cup for cable side. Each termination variant has both socket and plug connectors.

The main 17ED series provide the standard interface and 17EHD series provide high density D-sub interface.

- Mating interface according to MIL C24308
- Provide protection in harsh environments from external objects of water (IP67) and dust
- Standard and high density options replace existing standard connector of standard footprint
- Widely use at marine, industrial ,security robotics and lighting field
- Meets RoHS and IP67 rating

FEATURES

- 17ED:9pin, 15pin and 25pin
- 17EHD: 15pin, 26pin and 44pin
- Machined copper alloy contacts with 30mil gold plated
- Internal and external seal ring made with flexible silicone rubber
- Inserts are made of flame-retardant thermoplastic
- Multiple mounting and termination options of Solder cup, Straight and R/A PCB
- ED D sub waterproof Hoods available for 9pin , 15pin and 25pin
- 100-500 Mating Cycles
- 48 hours Salty Spray Test and RoHS compliant



TARGET MARKETS



BENEFITS

- Current rating of 5A max.
- Multiple interfaces served, from standard to high density
- Robust and reliable connected for high end application
- Excellent sealing to IP67 and higher protection over wide temperature range and protects equipment from water and dust incursion
- UL certified
- Replace existing standard connector of standard footprints
- Mainly for cable assemblies waterproof only when mated
- Variety use at Marine, industrial ,Security Robotics and lighting field
- Meet environmental, healthy and safety requirement

TECHNICAL INFORMATION

MATERIAL

- Shells: Steel, nickel plated 1.25µm(50µ") min.
- Body: Glass-filled thermoplastic
- Flame retardant to UL94 V-0 color black
- Contacts: Copper alloy(brass for plug, phosphor bronze for socket)
- Gold over 1.25µm(50µ") min nickel
- Boardlock: Copper alloy, 100µ" min. sn over 50µ" min. nickel
- Standoff: Copper alloy, 100µ" min. sn over 50µ" min. nickel

MECHANICAL PERFORMANCE

Mating and unmating force

Unit: Kg (lb)

No. of Cts		ED		EHD	
ED	EHD	Mate (max.)	Unmate (min.)	Mate (max.)	Unmate (min.)
9	15	3.05(6.74)	0.36(0.79)	3.81(8.42)	0.52(1.14)
15	26	5.09(11.24)	0.46(1.01)	5.95(13.16)	1.05(2.32)
25	44	8.44(18.66)	0.81(1.80)	9.26(20.46)	1.37(3.02)

Mating cycles

Gold Flash: 100 cycles
 0.4µm (15µ"): 200 cycles
 0.76µm (30µ"): 500 cycles

- Operating Temperature: -40°C to +85°C
- Salt Spray: 48 hours
- Waterproof Rating: IP67 min.

ELECTRICAL PERFORMANCE

- Current Rating: 5.0A
- Voltage Rating: 300V rms at 50Hz
- Insulation Resistance: >5000MΩ
- Contact Resistance: 20mΩ max.

PACKAGING

- Tray

APPROVALS AND CERTIFICATIONS

- Waterproof rating IP 67
- RoHS complied

ENVIRONMENTAL

- Temperature Life: Per EIA-364-17A
- Thermal Shock: Per EIA-364-32A
- Humidity: Per EIA-364-31A
- Vibration: Per EIA-364-28
- Solderability: Per EIA-364-52

TARGET MARKETS/APPLICATIONS



Automotive Infotainment



Industrial & Instrumentation



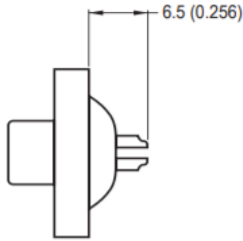
Medical



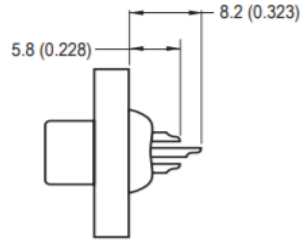
Military

TERMINATION

Solder cup (blank)

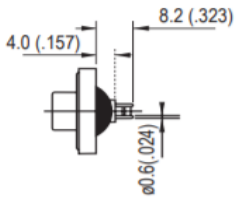


Standard density

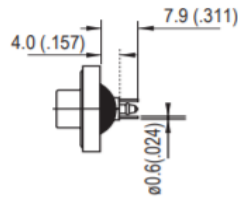


High density

Straight PCB with standoff and boardlocks

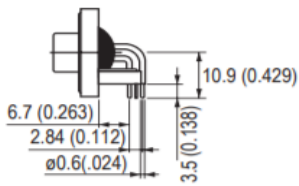


Standard density

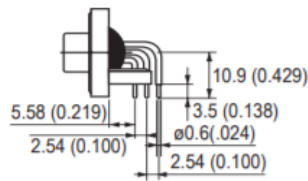


High density

Right angle PCB with brackets and boardlocks



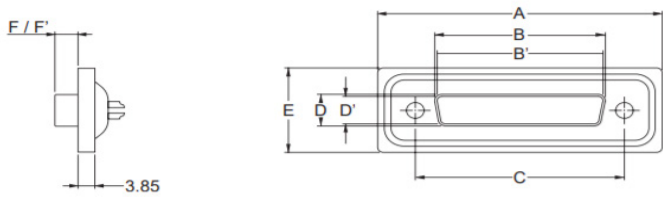
Standard density



High density

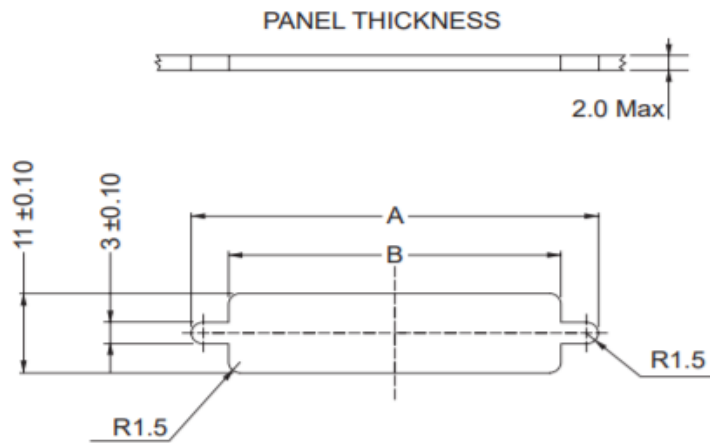
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Shell Size Dimensions



SHELL SIZE	Contact	A	B	B'	C	D	D'	E	F	F'
	P: pin S: socket	±0.25 (±0.10)	0 / -0.20 (0/- .008)	+0.20 / 0 (+ .008/0)	±0.10 (±.004)	0 / -0.25 (0/- .010)	+0.25 / 0 (+ .010/0)	±0.25 (±.010)	+0.10/-0.20 (+ .004/- .008)	±0.10 (±.004)
E	P	39.4 (1.551)		16.8(0.661)	25.0 (0.984)	8.0(0.315)	8.2(0.325)	21.0 (0.827)	6.2(0.244)	5.9(0.232)
	S		16.4(0.646)							
A	P	47.7 (1.878)		25.1(0.988)	33.3 (1.311)	8.0(0.315)	8.2(0.325)	21.0 (0.827)	6.2(0.244)	5.9(0.232)
	S		24.8(0.976)							
B	P	64.5 (2.539)		28.8(1.528)	47.0 (1.850)	8.0(0.315)	8.2(0.325)	21.0 (0.827)	6.2(0.244)	5.9(0.232)
	S		38.5(1.513)							

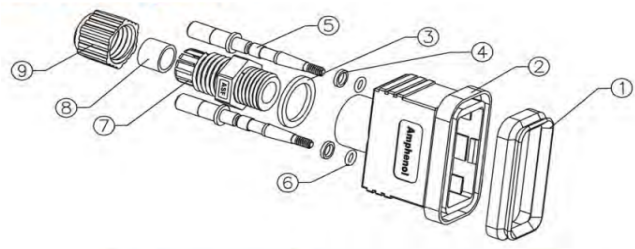
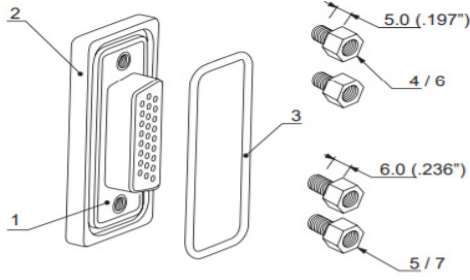
Panel cutouts



SHELL SIZE	A	B
	±0.10(±.004)	0 / -0.10(0 / -.004)
E	28.8 (1.111)	20.0 (0.788)
A	36.5 (1.438)	28.0 (1.103)
B	51.0 (2.009)	41.5 (1.635)

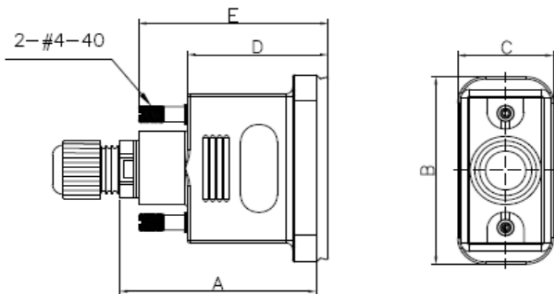
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Connector & Hood



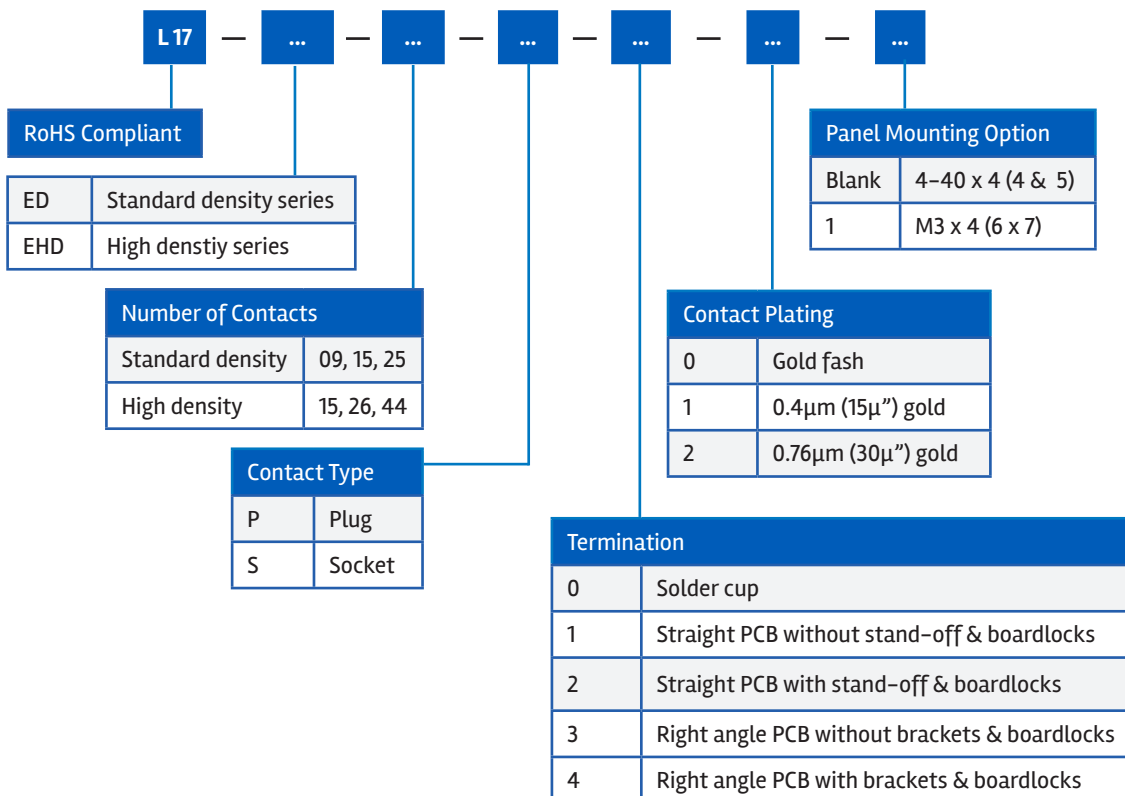
NO	Description	Material	Qty
2	Housing	Black thermoplastic UL 94-VO	1
1	Front shell	Steel tin plated	1
3	Ring	Silicone	1
4 & 5	#4-40 Front screw lock	Steel, Nickel plated	4
6 & 7	M3 Front screw lock	Steel, Nickel plated	4

No	Description	Material	Qty
1	Gasket	EPDM	1
2	Housing	ABS black	1
3	Gasket	EPDM	1
4	Gasket	EPDM	1
5	#4-40 screw	Brass	2
6	Ring	Silicone	2
7	Body	PA black	1
8	Seal	PA black	1
9	Sealing nut	PA black	1



Part Number	Hood Size	A	B	C	D	E
L17ED E PS	E	45.2	42.7	21.0	32.9	48.2
L17ED A PS	A	45.5	51.10	20.9	32.9	48.2
L17ED A PS	B	45.3	64.80	20.9	32.9	48.2
L17ED B PS	C	45.2	81.10	20.9	32.6	47.9
L17ED C PS	D	45.2	78.9	23.9	32.6	47.9

PART NUMBER SELECTOR



For special request, please consult factory