

Subminiature D Connectors HDF-20 for Flat Ribbon Cable

Product Facts

- Available in all 5 standard shell sizes
- Visual inspection of termination possible
- Fluted cover provides positive alignment of cable prior to termination
- Wide range of application tooling
- Patented insulation displacement contact latches into the connector cover
- Contact design provides a “gas-tight” termination
- Contacts accept 28 AWG [0.08mm²] solid and stranded, and 26 AWG [0.15mm²] solid and stranded round conductor flat ribbon cable on .050 [1.27] centers
- Qualified to Battelle Level III environment
- Recognized under the Component Program of Underwriters Laboratories Inc., File No. E28476
- Certified by Canadian Standards Association, File No. LR 7189
- Listed and complies with UL 1863, Communication Circuit Accessories File No. E81956

Plug — Low Profile Metal Shell



Receptacle — Low Profile Metal Shell



No. of Pos. & (Shell Size)	Cable Stabilizer Part No.	Plug Part Nos.		Receptacle Part Nos.	
		With Standard Mounting Holes	With 4-40 Threaded Inserts	With Standard Mounting Holes	With 4-40 Threaded Inserts
9 (1)	747275-4	1658613-4	1658608-4	1658612-4	1658610-4
15 (2)	747275-3	1658613-3	1658608-3	1658612-3	1658610-3
25 (3)	747275-2	1658613-2	1658608-2	1658612-2	1658610-2
37 (4)	747275-1	1658613-1	1658608-1	1658612-1	1658610-1
50 (5)	746785-1	—	1658607-1	—	1658606-1

Note: All assemblies are supplied with housing and cover pre-assembled. Optional cable stabilizer must be ordered separately.

Material

Front Shell—Steel, tin or tin plated
Housing, Cover & Cable Stabilizer—Thermoplastic, 94V-0, black
Threaded Inserts—Brass, unplated
Contacts—Phosphor bronze, duplex plated .000030 [0.00076] min. gold on mating end, .000100-.000200 [0.00254-.000508] bright tin on termination end with entire contact underplated .000050 [0.00127] min. nickel

Related Product Data

Contact Arrangement—page 40
Performance Characteristics—page 41
Mateable Receptacles:
HDF-20 Metal-Shell—page 124
HDE—pages 110-121 (Sizes 1–4 only)
HDP—pages 90-109
HD-20 Board Mount—pages 54-71, 78-85, 87-89
Mating/Panel Mounting—page 126
Ribbon Cable—page 125
Accessories:
Commoning Strip—page 146
Mating Hardware—pages 146-150, 153 & 154
Application Tooling—page 127

Technical Documents

Product Specification—108-40012

Note: All part numbers are RoHS compliant.

HDF-20 Low Profile All-Plastic Connectors (for Round Conductor Flat Ribbon Cable)

Material and Finish

Housing, Cover & Cable

Stabilizer—Black thermoplastic, 94V-0 rated

Threaded Inserts—Brass, unplated

Pin Contacts—Phosphor bronze, duplex plated .000030 [0.00076] gold on mating end, .000100-.000200 [0.00254-0.00508] bright tin on termination end, with entire contact underplated .000050 [0.00127] nickel

Related Product Data

Contact Arrangement—page 40

Performance Characteristics—page 41

Mateable Receptacles:

HDF-20 All-Plastic—page 124

HD-20 Board Mount—pages 54-71, 78-85, 87-89

HDE All-Plastic—pages 147, 148

Mating/Panel Mounting—page 126

Ribbon Cable—page 125

Accessories:

Mating Hardware—pages 146-150, 153, 155

Application Tooling—page 127

Technical Documents

Product Specifications—

108-40012 HDF-20 Low Profile Connectors

Plug Assemblies



Housing and Covers are Preassembled; Cable Stabilizer is Separate.

Receptacle Assemblies



Housing and Covers are Preassembled; Cable Stabilizer is Separate.

No. of Contact Pos. & (Shell Size)	Optional Cable Stabilizer Part No.	Plug Assembly Part No.		Receptacle Assembly Part No.	
		With Standard Mounting Holes	With Threaded Inserts	With Standard Mounting Holes	With Threaded Inserts
9 (1)	747275-4	1658615-4	1658611-4	1658614-4	1658609-4
15 (2)	747275-3	1658615-3	1658611-3	1658614-3	1658609-3
25 (3)	747275-2	1658615-2	1658611-2	1658614-2	1658609-2
37 (4)	747275-1	1658615-1	—	1658614-1	1658609-1

Note: All assemblies are supplied with housing and cover pre-assembled. Optional cable stabilizer must be ordered separately.

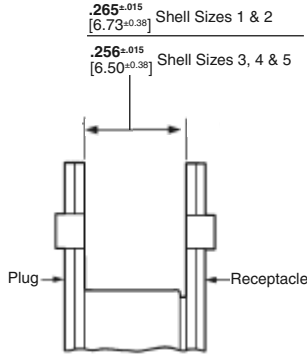
Ribbon Cable Parameters

No. of Conductors	28 AWG [0.08mm ²] Part No.		26 AWG [0.15mm ²] Part No.
	Length Per Reel		Length Per Reel
	100 Ft. [30.5m]	500 Ft. [152.4m]	500 Ft. [152.4m]
9	1-57040-2	1-971111-2	57034-2
15	1-57040-5	1-971111-5	57034-5
25	57040-2	971111-2	57034-9
37	1-57040-8	1-971111-8	1-57034-3
50	57040-6	971111-6	1-57034-5

Note: All part numbers are RoHS compliant.

HDF-20 Plugs/Receptacles Mating and Panel Mounting Specifications

Plug/Receptacle Mating



The .265/.256 [6.73/6.50] dimensions are required to assure full mating of connector halves. These dimensions must be taken into consideration when determining the method of mounting, panel thickness, etc.

Panel Mounting

Plugs and receptacles can be mounted to a panel from either the front or rear, using a variety of accessory hardware. Typical examples are shown below.

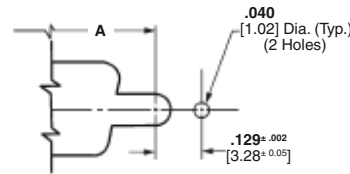
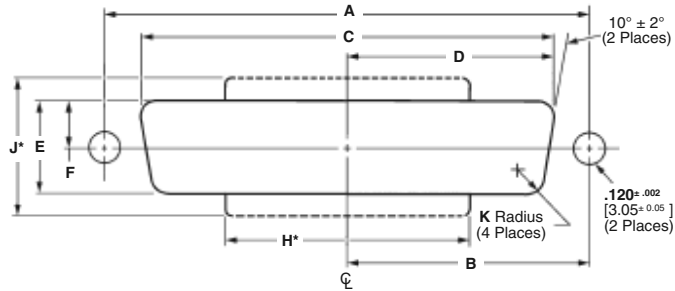


Typical Front-Panel Mounted HDF-20 Plug



Typical Rear-Panel Mounted HDF-20 Plug

Panel Cutouts



Cutout for Rear Mount and Short Latching Blocks

Shell Size (Pos.)	Mounting Method Front/Rear Panel	Dimensions								
		A	B	C	D	E	F	H*	J*	K
1 (9)	Front	.984 24.99	.492 12.50	.874 22.20	.437 11.10	.513 13.03	.257 6.53	—	—	.083 2.11
	Rear	.984 24.99	.492 12.50	.806 20.47	.403 10.24	.449 11.41	.225 5.72	.550 13.97	.750 19.05	.132 3.35
2 (15)	Front	1.312 33.33	.656 16.66	1.202 30.53	.601 15.27	.513 13.03	.257 6.53	—	—	.083 2.11
	Rear	1.312 33.33	.656 16.66	1.134 28.80	.567 14.40	.449 11.41	.225 5.72	.730 18.54	.750 19.05	.132 3.35
3 (25)	Front	1.852 47.04	.926 23.52	1.743 44.27	.872 22.15	.513 13.03	.257 6.53	—	—	.083 2.11
	Rear	1.852 47.04	.926 23.52	1.674 42.52	.842 21.39	.449 11.41	.225 5.72	1.275 32.39	.750 19.05	.132 3.35
4 (37)	Front	2.500 63.50	1.250 31.75	2.391 60.73	1.196 30.38	.513 13.03	.257 6.53	—	—	.083 2.11
	Rear	2.500 63.50	1.250 31.75	2.326 59.08	1.163 29.54	.449 11.41	.225 5.72	1.920 48.05	.750 16.13	.132 3.35
5 (50)	Front	2.406 61.11	1.203 30.56	2.297 58.34	1.149 29.19	.623 15.82	.312 7.93	—	—	.083 2.11
	Rear	2.406 61.11	1.203 30.56	2.218 56.34	1.109 28.17	.555 14.10	.278 7.06	1.753 44.52	.750 19.05	.132 3.35

*Panel cutout configuration with H and J dimensions provides clearance for mounting connectors with cable clamps.