

The BFH is a hermetically sealed version of the BFR bulkhead fitting.

The TBFH-100 is a jam nut-mounted, thru-bulkhead receptacle for panel thicknesses of .187 (4.75) thru .312 (7.92). Sealing against the bulkhead is accomplished by an O ring seal.

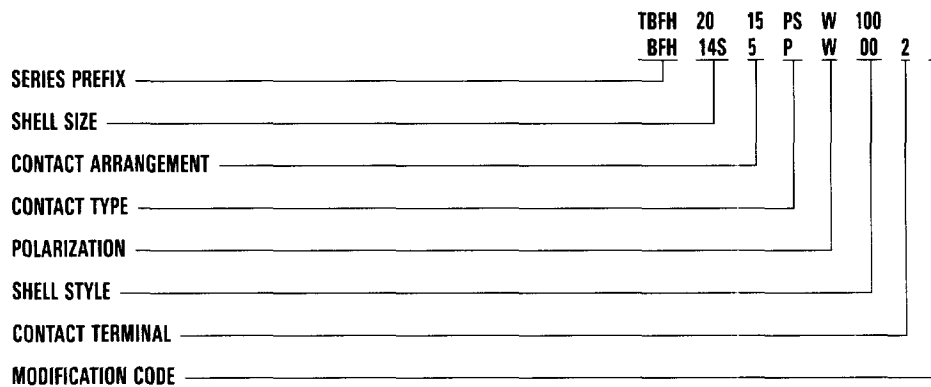
The TBFH-200 is similar to the TBFH-100 with a longer overall length for panel thicknesses of .375 (9.52) thru .750 (19.05).

The TBFH-110 is the hermetically sealed version of the TBF thru-bulkhead receptacle. It is flange mounted and mates with 3106, 3107 and 3108 plugs. Contacts are sealed to achieve hermeticity preventing air leakage in excess of one micron cubic foot per hour at a pressure differential of one atmosphere. Receptacles with leak rate of .001 micron cubic foot per hour, and lower, are also available.

Materials and Finishes

Contact and shells are steel. Standard finish is clear chromate over cadmium. Other finishes are available for high temperature and special applications.

How to Order

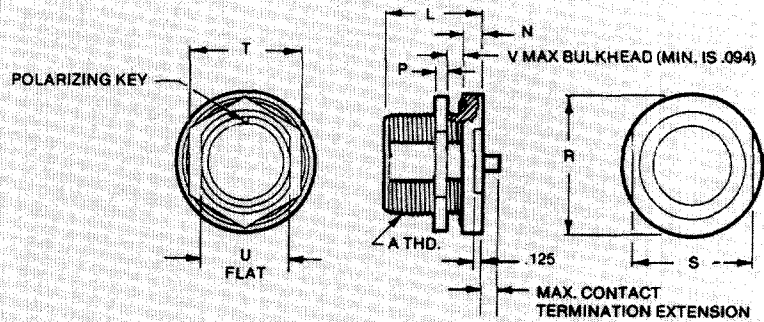


- SERIES PREFIX**
 TBFH – Thru-bulkhead fitting, Hermetic
 BFH – Bulkhead fitting, Hermetic
- SHELL SIZE**
 Coupling thread diameter figured in sixteenths of an inch
- CONTACT ARRANGEMENT**
 See Pages 24–25.
- CONTACT TYPE**
 P – Pin (BFH)
 S – Socket (BFH)
 PS – Pin-Socket (sockets on jam nut side) (TBFH)
 PP – Pin-Pin (TBFH)
 SP – Socket-Pin (pins on jam nut side) (TBFH)

- POLARIZATION**
 See page 27, for Alternate Insert Positions
- SHELL SIZE**
 00 – BFH (Thr'd digit contact termination)
 100 – TBFH (For up to 5/16 panel thickness)
 110 – Square flange
 200 – TBFH (For up to 3/4 panel thickness)
- CONTACT TERMINAL (BFH only)**
 1 – Eyelet
 2 – Solder pot
 3 – Short solder pot
 B11 – Weldable
- MODIFICATION CODE**
 F208 – Stainless steel (304L type) hardware, contacts .00005 min gold over nickel
 Consult factory for other modification codes

Bulkhead Receptacle

BFH



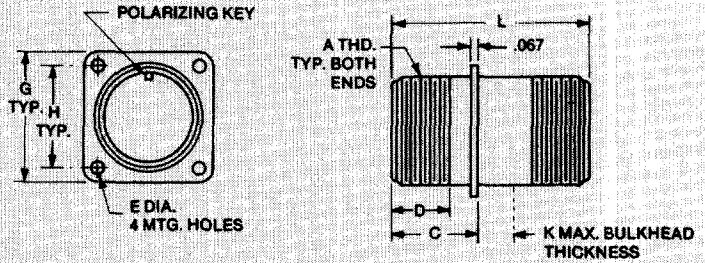
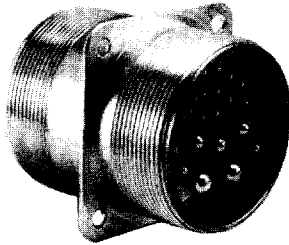
Part Number by Shell Size Pin Insert*	O Ring Part Number	A Thread	L		N	P	R	S	T Max.	U Max.	V Max.
			Pin	Socket							
•BFH8S-**P-00Δ	MS28775-114	1/2-28UNEF-2A	1.062 (26.97)	—	.250 (6.35)	.125 (3.18)	1.062 (26.97)	.813 (20.65)	.635 (16.13)	.457 (11.61)	.277 (7.04)
•BFH10S-**P-00Δ	MS28775-116	5/8-24NEF-2A	1.062 (26.97)	—	.250 (6.35)	.125 (3.18)	1.188 (30.18)	.938 (23.83)	.760 (19.30)	.575 (14.60)	.277 (7.04)
•BFH10SL-**P-00Δ	MS28775-116	5/8-24NEF-2A	1.062 (26.97)	—	.250 (6.35)	.125 (3.18)	1.188 (30.18)	.938 (23.83)	.760 (19.30)	.575 (14.60)	.277 (7.04)
BFH12S-**P-00Δ	MS28775-212	3/4-20UNEF-2A	1.062 (26.97)	1.094 (27.79)	.281 (7.14)	.125 (3.18)	1.313 (33.35)	1.062 (26.97)	.885 (22.48)	.689 (17.50)	.246 (6.25)
BFH14S-**P-00Δ	MS28775-214	7/8-20UNEF-2A	1.062 (26.97)	1.094 (27.79)	.281 (7.14)	.125 (3.18)	1.438 (36.53)	1.188 (30.18)	1.010 (25.65)	.814 (20.68)	.246 (6.25)
BFH16S-**P-00Δ	MS28775-216	1 -20UNEF-2A	1.062 (26.97)	1.094 (27.79)	.281 (7.14)	.141 (3.58)	1.563 (39.70)	1.313 (33.35)	1.135 (29.83)	.939 (23.95)	.230 (5.84)
BFH12-**P-00Δ	MS28775-212	3/4-20UNEF-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.125 (3.18)	1.313 (33.35)	1.062 (26.97)	.885 (22.48)	.689 (17.50)	.422 (10.72)
BFH14-**P-00Δ	MS28775-214	7/8-20UNEF-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.125 (3.18)	1.438 (36.53)	1.188 (30.68)	1.010 (25.65)	.814 (20.68)	.422 (10.72)
BFH16-**P-00Δ	MS28775-216	1 -20UNEF-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.141 (3.58)	1.563 (39.70)	1.313 (33.35)	1.135 (24.83)	.939 (23.85)	.422 (10.72)
BFH18-**P-00Δ	MS28775-218	1-1/8-18UNEF-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.141 (3.58)	1.688 (42.88)	1.438 (36.53)	1.260 (32.00)	1.057 (26.85)	.422 (10.72)
BFH20-**P-00Δ	MS28775-220	1-1/4-18UNEF-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.141 (3.58)	1.813 (46.05)	1.563 (39.70)	1.385 (35.18)	1.182 (30.02)	.422 (10.72)
BFH22-**P-00Δ	MS28775-222	1-3/8-18UNEF-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.141 (3.58)	1.938 (49.23)	1.688 (42.88)	1.510 (38.35)	1.307 (33.20)	.422 (10.72)
BFH24-**P-00Δ	MS28775-223	1-1/2-18UNEF-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.141 (3.58)	2.062 (52.37)	1.875 (47.62)	1.635 (41.53)	1.432 (36.37)	.422 (10.72)
BFH28-**P-00Δ	MS28775-225	1-3/4-18UNS-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.141 (3.58)	2.313 (58.75)	2.062 (52.37)	1.885 (47.88)	1.682 (42.72)	.422 (10.72)
BFH32-**P-00Δ	MS28775-227	2 -18UNS-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.141 (3.58)	2.563 (65.10)	2.313 (58.75)	2.260 (57.40)	1.932 (49.07)	.422 (10.72)
BFH36-**P-00Δ	MS28775-229	2-1/4-16UN-2A	1.500 (38.10)	1.500 (38.10)	.281 (7.14)	.151 (3.84)	2.813 (71.45)	2.563 (65.10)	2.510 (63.75)	2.174 (55.22)	.422 (10.72)

*For socket inserts, substitute S for P following the contact arrangement number.
 **Add contact arrangement number. See pages 24-25 for contact arrangements.
 •Available with pin inserts only.
 ΔAdd contact terminal type. See Ordering Data, page 32.

BFH/
TBFH

Thru-Bulkhead Receptacle

TBFH-110



Part Number by Shell Size	A Thread	C Max.	D Min.	E ±.005 (0.13)	G Max.	H ±.005 (0.13)	K Max.	L Max.
TBFH12S-**-PS-110	3/4-20UNEF-2A	.729 (18.52)	.450 (11.43)	.120 (3.05)	1.125 (28.58)	.812 (20.62)	.281 (7.14)	1.697 (43.10)
TBFH14S-**-PS-110	7/8-20UNEF-2A	.729 (18.52)	.450 (11.43)	.120 (3.05)	1.219 (30.96)	.906 (23.01)	.281 (7.14)	1.697 (43.10)
TBFH16S-**-PS-110	1 -20UNEF-2A	.729 (18.52)	.450 (11.43)	.120 (3.05)	1.312 (33.32)	.968 (24.59)	.281 (7.14)	1.697 (43.10)
TBFH12-**-PS-110	3/4-20UNEF-2A	.916 (23.27)	.625 (15.88)	.120 (3.05)	1.125 (28.58)	.812 (20.62)	.281 (7.14)	2.072 (52.63)
TBFH14-**-PS-110	7/8-20UNEF-2A	.916 (23.27)	.625 (15.88)	.120 (3.05)	1.219 (30.96)	.906 (23.01)	.281 (7.14)	2.072 (52.63)
TBFH16-**-PS-110	1 -20UNEF-2A	.916 (23.27)	.625 (15.88)	.120 (3.05)	1.406 (35.71)	1.062 (26.97)	.281 (7.14)	2.072 (52.63)
TBFH18-**-PS-110	1-1/8-18UNEF-2A	.916 (23.27)	.625 (15.88)	.120 (3.05)	1.406 (35.71)	1.062 (26.97)	.281 (7.14)	2.072 (52.63)
TBFH20-**-PS-110	1-1/4-18UNEF-2A	.916 (23.27)	.625 (15.88)	.120 (3.05)	1.531 (38.89)	1.156 (29.36)	.281 (7.14)	2.072 (52.63)
TBFH22-**-PS-110	1-3/8-18UNEF-2A	.916 (23.27)	.625 (15.88)	.120 (3.05)	1.656 (42.06)	1.250 (31.75)	.281 (7.14)	2.197 (55.80)
TBFH24-**-PS-110	1-1/2-18UNEF-2A	.916 (23.27)	.625 (15.88)	.147 (3.73)	1.781 (45.24)	1.375 (34.92)	.281 (7.14)	2.197 (55.80)
TBFH28-**-PS-110	1-3/4-18UNEF-2A	.916 (23.27)	.625 (15.88)	.147 (3.73)	2.031 (51.59)	1.562 (39.67)	.281 (7.14)	2.197 (55.80)
TBFH32-**-PS-110	1 -18UNEF-2A	.916 (23.27)	.625 (15.88)	.173 (4.39)	2.281 (57.94)	1.750 (44.45)	.406 (10.31)	2.197 (55.80)
TBFH36-**-PS-110	2-1/4-16UN-2A	.916 (23.27)	.625 (15.88)	.173 (4.39)	2.531 (64.29)	1.937 (49.20)	.406 (10.31)	2.197 (55.80)
TBFH40-**-PS-110	2-1/2-16UN-2A	.916 (23.27)	.625 (15.88)	.173 (4.39)	2.781 (70.64)	2.187 (55.55)	.406 (10.31)	2.197 (55.80)
TBFH44-**-PS-110	2-3/4-16UN-2A	.916 (23.27)	.625 (15.88)	.173 (4.39)	3.031 (76.99)	2.375 (60.32)	.406 (10.31)	2.197 (55.80)

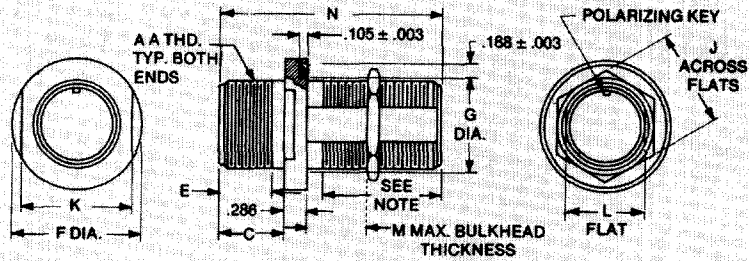
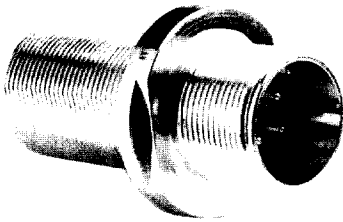
**Add contact arrangement number. See pages 24-25 for contact arrangements.
NOTE: Available only with individual beads (steel web construction).

BFH/
TBFH

Thru-Bulkhead Receptacle

Jam Nut Mounted

TBFH-100/-200



NOTE: Threaded to within .094(2.39) max from flange.

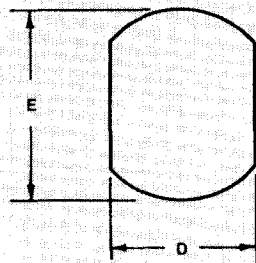
Part Number by Shell Size	O Ring Part Number	A Thread	C Max.	E Min.	F Max.	G Max.	J Max.	K Max.	L Max.	TBFH-100		TBFH-200	
										M Max.	N Max.	M Max.	N Max.
TBFH12S-**PS-†	MS28775-114	3/4-20UNEF-2A	.635(16.13)	.450(11.43)	1.322(33.58)	.844(21.44)	.855(21.72)	1.072(27.23)	.689(17.50)	.250(6.35)	1.825(46.36)	.375(9.52)	2.015(51.18)
TBFH14S-**PS-†	MS28775-116	7/8-20UNEF-2A	.635(16.13)	.450(11.43)	1.447(36.75)	.969(24.62)	1.010(25.63)	1.197(30.40)	.814(20.68)	.250(6.35)	1.825(46.36)	.375(9.52)	2.105(51.18)
TBFH16S-**PS-†	MS28775-116	1-20UNEF-2A	.635(16.13)	.450(11.43)	1.572(39.93)	1.094(27.79)	1.135(28.83)	1.322(33.58)	.939(23.85)	.250(6.35)	1.825(46.36)	.375(9.52)	2.105(51.18)
TBFH12-**PS-†	MS28775-212	3/4-20UNEF-2A	.849(21.56)	.625(15.88)	1.322(33.58)	.844(21.44)	.885(22.48)	1.072(27.23)	.689(17.50)	.187(4.75)	2.200(55.88)	.750(19.05)	2.859(72.62)
TBFH14-**PS-†	MS28775-214	7/8-20UNEF-2A	.849(21.56)	.625(15.88)	1.447(36.75)	.969(24.62)	1.010(25.65)	1.197(30.40)	.814(23.85)	.187(4.75)	2.200(55.88)	.750(19.05)	2.859(72.62)
TBFH16-**PS-†	MS28775-216	1-20UNEF-2A	.849(21.56)	.625(15.88)	1.572(39.93)	1.094(27.79)	1.135(28.83)	1.322(33.58)	.939(23.85)	.187(4.75)	2.200(55.88)	.750(19.05)	2.859(72.62)
TBFH18-**PS-†	MS28775-212	1-1/8-18UNEF-2A	.849(21.56)	.625(15.88)	1.697(43.10)	1.219(30.96)	1.260(32.00)	1.447(36.75)	1.057(26.85)	.187(4.75)	2.200(55.88)	.750(19.05)	2.859(72.62)
TBFH20-**PS-†	MS28775-214	1-1/4-18UNEF-2A	.849(21.56)	.625(15.88)	1.822(46.28)	1.344(34.14)	1.385(35.18)	1.572(39.93)	1.182(30.00)	.187(4.75)	2.200(55.88)	.750(19.05)	2.859(72.62)
TBFH22-**PS-†	MS28775-216	1-3/8-18UNEF-2A	.849(21.56)	.625(15.88)	1.947(49.45)	1.469(37.31)	1.510(38.35)	1.697(43.10)	1.307(33.20)	.187(4.75)	2.200(55.88)	.750(19.05)	2.859(72.62)
TBFH24-**PS-†	MS28775-218	1-1/2-18UNEF-2A	.849(21.56)	.625(15.88)	2.072(52.63)	1.594(40.49)	1.635(41.53)	1.885(47.88)	1.432(36.37)	.312(7.92)	2.325(59.06)	.750(19.05)	2.859(72.62)
TBFH28-**PS-†	MS28775-220	1-3/4-18UNS-2A	.849(21.56)	.625(15.88)	2.322(58.98)	1.840(46.74)	1.885(47.88)	2.072(52.63)	1.682(42.72)	.312(7.92)	2.325(59.06)	.750(19.05)	2.859(72.62)
TBFH32-**PS-†	MS28775-222	2-18UNS-2A	.849(21.56)	.625(15.88)	2.572(65.33)	2.090(53.09)	2.260(57.40)	2.322(58.98)	1.932(49.07)	.312(7.92)	2.325(59.06)	.750(19.05)	2.859(72.62)
TBFH36-**PS-†	MS28775-223	2-1/4-16UN-2A	.849(21.56)	.625(15.88)	2.822(71.68)	2.340(59.44)	2.510(63.75)	2.572(65.33)	2.174(55.22)	.312(7.92)	2.325(59.06)	.750(19.05)	2.859(72.62)
TBFH40-**PS-†	MS28775-225	2-1/2-16UN-2A	.849(21.56)	.625(15.88)	3.227(81.97)	2.685(68.20)	2.760(70.10)	2.885(73.28)	2.423(61.54)	.312(7.92)	2.325(59.06)	.750(19.05)	2.859(72.62)
TBFH44-**PS-†	MS28775-227	2-3/4-16UN-2A	.849(21.56)	.625(15.88)	3.460(87.88)	2.842(72.19)	3.010(76.45)	3.085(78.36)	2.673(67.89)	.312(7.92)	2.325(59.06)	.750(19.05)	2.859(72.62)
TBFH48-**PS-†	MS28775-229	3-16UN-2A	.849(21.56)	.625(15.88)	3.760(95.50)	3.188(80.98)	3.510(89.15)	3.385(85.98)	2.923(74.24)	.312(7.92)	2.325(59.06)	.750(19.05)	2.859(72.62)

**Add contact arrangement number. See pages 24-25 for contact arrangements.

†Add panel accommodation number: 100 or 200.

NOTE: Available only with individual beads(steel web construction). Same mounting hole dimensions as BFH.

Mounting Dimensions – BFH and TBFH-100/-200



For Shell Sizes	D	E
	+ .015 (0.38) - .000 (0.00)	+ .015 (0.38) - .000 (0.00)
8S	.460(11.68)	.500(12.70)
10S, 10SL	.578(14.68)	.625(15.88)
12S, 12	.692(17.58)	.750(19.05)
14S, 14	.817(20.75)	.875(22.22)
16S, 16	.942(23.93)	1.000(25.40)
18	1.060(26.92)	1.125(28.58)
20	1.185(30.10)	1.250(31.75)
22	1.310(33.27)	1.375(34.92)
24	1.435(36.45)	1.500(38.10)
28	1.687(42.85)	1.750(44.45)
32	1.937(49.20)	2.000(50.80)
36	2.177(55.30)	2.250(57.15)
40	2.426(61.62)	2.500(63.50)
44	2.676(67.97)	2.750(69.85)
48	2.926(74.32)	3.000(76.20)