

MIL-DTL-38999 Series I Type 231-100-H5 and MS27471 Solder-mount hermetic receptacle



MATERIAL/FINISH:

- Shell: CRES/passivated, CRES/nickel plated or carbon steel / fused tin plated.
- Contacts: nickel iron alloy 52 / gold plated
- Sockets: copper alloy / gold plated
- Insulator: fused vitreous glass
- Socket insulator: high grade rigid dielectric
- Seals: fluorosilicone rubber

PERFORMANCE SPECIFICATIONS

- Hermeticity: $<1 \times 10^{-7}$

NOTES

- Glenair 231-100-H5 receptacle connector is designed to mate with any QPL manufacturer's DTL-38999 Series III plug connector having the same shell size, polarization, and arrangement except for shielded contact arrangements. Consult factory for mating plug options
- Insert arrangements in accordance with MIL-STD-1560 arrangements which specify shielded contacts will be built with appropriately sized power / signal contacts. Crimp-removable shielded contacts are not available in standard hermetic connectors. Consult factory for special hermetic shielded contact option

HOW TO ORDER							
COTS Sample Part No.	231-100	-H5	Z1	11	-35	P	N
Series	231-100						
Shell Style	H5						
Material and Finish	ZL, Z1, FT						
Shell Size	9 thru 25						
Insert Arrangement	Per MIL-STD-1560; see page C-2						
Contact Style	P, X, C, S, Z, D						
Keyway Position	A, B, C, D; (N for Normal)						

MS Sample Part No.	MS27471	Y	11	N	35	P	A
MS Number	MS27471						
Class	Y						
Shell Size	9 thru 25						
Material and Finish	D, E, N						
Insert Arrangement	Per MIL-STD-1560; see page C-2						
Contact Termination	P, X, C, S, Z, D						
Keyway Position	A, B, C, D; (Omit for Normal)						

MS PART NUMBER DETAILS	
Shell Style and Class	
MS27471Y = solder-mount receptacle, hermetic	
Shell Size	
9, 11, 13, 15, 17, 19, 21, 23, 25	
Connector Material and Finish	
D = carbon steel, fused tin finish, 150° C, conductive	
E = stainless steel, passivate finish, 200° C, conductive	
N = stainless steel, nickel finish (electrodeposited), 200° C conductive	
Insert Arrangement	

MIL-DTL-38999 Series II hermetic inserts per MIL-STD-1560; Refer to Insert Arrangements on page B-2

Contact Termination (500-cycle contacts)	
P = pin, solder cup	
X = pin, eyelet	
C = pin, feedthru	
S = socket, solder cup	
Z = socket, eyelet	
D = socket, feedthru	
Alternate Key Position	
A, B, C, D; (N for normal)	

HERMETIC LEAK RATE MODIFICATION CODES	
Designator	Required Leak Rate
-585A	1×10^{-10} atm ccHe/s per sec
-585B	1×10^{-9} ccHe/s per sec
-585C	1×10^{-8} ccHe/s per sec

COTS PART NUMBER DETAILS	
Shell Style and Class	
231-100-H5 = solder-mount receptacle, hermetic	
Connector Material and Finish	
ZL = carbon steel, fused tin finish, 150° C, conductive	
Z1 = stainless steel, passivate finish, 200° C, conductive	
FT = stainless steel, nickel finish (electrodeposited), 200° C, conductive	
Shell Size	
9, 11, 13, 15, 17, 19, 21, 23, 25	
Insert Arrangement	

MIL-DTL-38999 Series II hermetic inserts per MIL-STD-1560; Refer to Insert Arrangements on page B-2

Contact Termination (500-cycle contacts)	
P = pin, solder cup	
X = pin, eyelet	
C = pin, feedthru	
S = socket, solder cup	
Z = socket, eyelet	
D = socket, feedthru	
Alternate Key Position	
A, B, C, D; (N for normal)	

WIRE ACCOMMODATION	
Contact Size	Wire Gauge
22D	#22 - #28
20	#20 - #24
16	#16 - #20
12	#12 - #14

MIL-DTL-38999 Series I Type
231-100-H5 and MS27471 Solder-mount hermetic receptacle

HERMETIC CONNECTORS

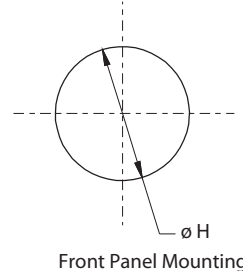
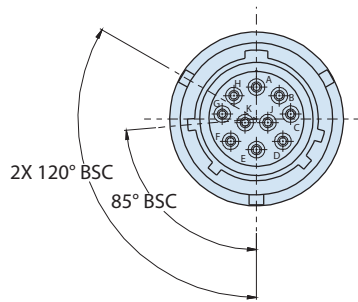
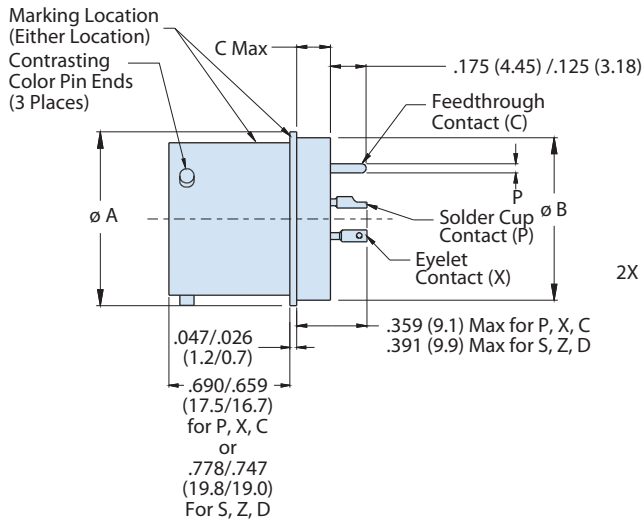
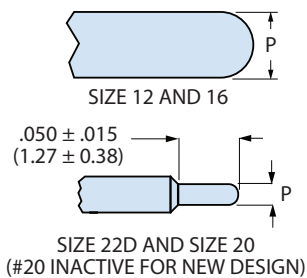


TABLE II: CONTACT SIZE

PCB CONTACT STYLE C AND D



Size	Ø P
22D	.011 (0.28) .015 (0.38)
20	.024 (0.61) .028 (0.71)
16	.0635 (1.61) .0615 (1.56)
12	.095 (2.41) .093 (2.36)

CONNECTOR DIMENSIONS

Shell Size	Ø A ± .016 (0.4)	Ø B	C Max	Ø H ± .005 (0.1)
9	.750 (19.1)	.673 (17.1) .667 (16.9)	.187 (4.7)	.680 (17.3)
11	.844 (21.4)	.782 (19.9) .776 (19.7)	.187 (4.7)	.789 (20.0)
13	.969 (24.6)	.907 (23.0) .901 (22.9)	.187 (4.7)	.914 (23.2)
15	1.094 (27.8)	1.032 (26.2) 1.027 (26.1)	.187 (4.7)	1.038 (26.4)
17	1.218 (30.9)	1.157 (29.4) 1.151 (29.2)	.187 (4.7)	1.164 (29.6)
19	1.312 (33.3)	1.251 (31.8) 1.245 (31.6)	.187 (4.7)	1.258 (32.0)
21	1.438 (36.5)	1.376 (35.0) 1.370 (34.8)	.187 (4.7)	1.383 (35.1)
23	1.563 (39.7)	1.501 (38.1) 1.495 (38.0)	.218 (5.5)	1.508 (38.3)
25	1.688 (42.9)	1.626 (41.3) 1.620 (41.1)	.218 (5.5)	1.643 (41.7)

INSERT ARRANGEMENTS

Shell Size - Insert Arrangement	22D	20	16	12
9-98		3		
9-35	6			
11-4		4		
11-5		5		
11-98		6		
11-99		7		
11-35	13	7		
11-2			2	
13-4			4	
13-8		8		
13-98		10		
13-35	22			
15-5			5	
15-15		14	1	
15-18		18		
15-19		19		
15-35	37			
15-97		8	4	
17-6				6
17-8				8
17-26		26		
17-99		21	2	
17-35	55			
19-11			11	
19-28		26	2	
19-30		29	1	
19-32		32		
19-35	66			
19-45	67			
21-11				11
21-16			16	
21-24		24		
21-25		25		
21-27		27		
21-41		41		
21-29		19	4	4
21-39		37	2	
21-35	79			
23-35	100			
23-21			21	
23-32		32		
23-34		34		
23-36		36		
23-53		53		
23-97			16	
23-99			11	
23-55		55		
25-35	128			
25-29			29	
25-37			37	
25-61		61		
25-4		48	8	
25-43		23	20	
25-19				19
25-24			12	12