

MIL-DTL-38999 Series III Type

233-215 1K PSI crimp-contact piston-sealed connectors

ENVIRONMENTAL CONNECTORS



Part Number Development							
Sample Part Number	233-215	-	G6	NF	17-8	P	T
Series / Basic Part No.	233-215 = Series 23 SuperNine, Standard MIL-DTL-38999 panel mount configuration						
Rear Accessory Option	See Rear Accessory Option table						
Connector Style*	See Connector Style table						
Finish	NF = Al alloy/cadmium olive drab ME = Al alloy/electroless nickel AB = marine bronze/NA MT = Al alloy/nickel PTFE ZR = Al alloy/black zinc nickel Z1 = SST, passivate						
Shell Size-Insert Arrangement*	Per MIL-STD-1560						
Contact Type	P = Pin, gold 1500 cycles A = Less pin contacts H = Pin, Pd/Ni 1500 cycles S = Socket, gold 1500 cycles B = Less socket contacts J = Socket, Pd/Ni 1500 cycles						
Alternate Polarization	V, W, X, Y, Z, T = Normal (IAW MIL-DTL-38999 Series III); see key or keyway position tables						

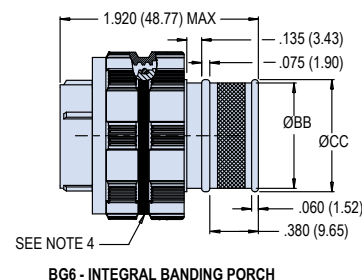
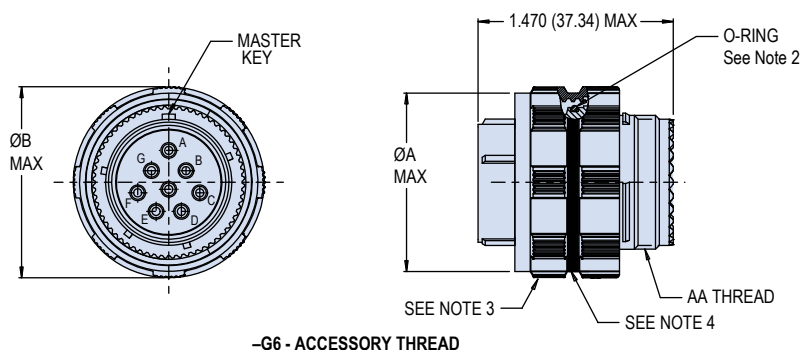
*Refer to Section A for complete details

Rear Accessory Option	
Sym	Description
-	Accessory thread and teeth
B	Integral backshell, boot adaptor

Panel Mount Options	
Sym	Description
-	Standard MIL-DTL-38999 panel mount configuration

Connector Style	
Sym	Description
G6	Plug with EMI spring (D38999/26 type)
05	Inline receptacle
07	Jam nut receptacle (D38999/24 type)
HM	Wall mount receptacle with metric helicoils
HS	Wall mount receptacle with standard helicoils

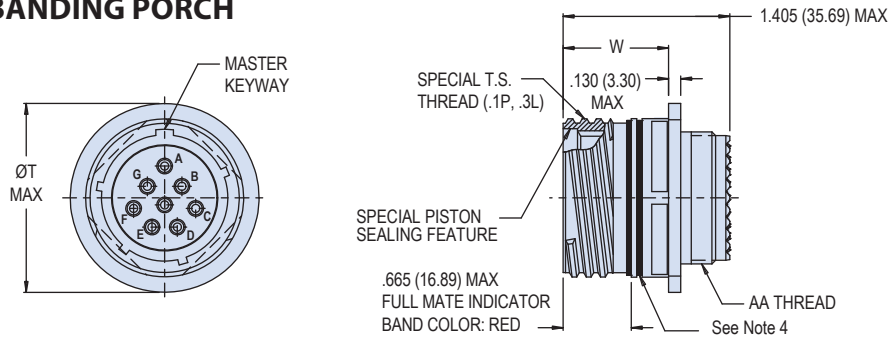
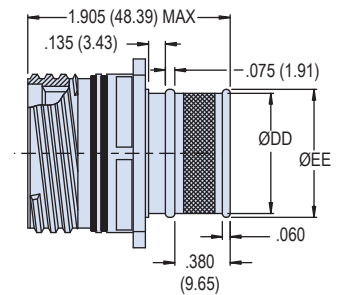
G6 AND BG6 PISTON SEAL PLUG, ACCESSORY THREAD OR INTEGRAL BACKSHELL



Plug requires a special protective cover to accommodate O-Ring seal. See Part Number 239-200 in accessories, section H of this catalog.

Plug Dimensions			
Shell Size	ØA	ØB	AA Thread
9	.815 (20.70)	.875 (22.23)	M12 X 1.0-6g 0.100R
11	.928 (23.57)	.988 (25.10)	M15 X 1.0-6g 0.100R
13	1.089 (27.66)	1.149 (29.18)	M18 X 1.0-6g 0.100R
15	1.214 (30.84)	1.274 (32.36)	M22 X 1.0-6g 0.100R
17	1.367 (34.72)	1.427 (36.25)	M25 X 1.0-6g 0.100R
19	1.464 (37.19)	1.524 (38.71)	M28 X 1.0-6g 0.100R
21	1.589 (40.36)	1.649 (41.88)	M31 X 1.0-6g 0.100R
23	1.714 (43.54)	1.774 (45.06)	M34 X 1.0-6g 0.100R
25	1.839 (46.71)	1.899 (48.23)	M37 X 1.0-6g 0.100R

Integral Backshell Dimensions		
Shell Size	ØBB	ØCC
9	.420 (10.67)	.465 (11.81)
11	.550 (13.97)	.595 (15.11)
13	.670 (17.02)	.715 (18.16)
15	.815 (20.70)	.860 (21.84)
17	.945 (24.00)	.990 (25.15)
19	1.050 (26.67)	1.100 (27.94)
21	1.170 (29.72)	1.220 (30.99)
23	1.290 (32.77)	1.340 (34.04)
25	1.400 (35.56)	1.450 (36.83)

MIL-DTL-38999 Series III Type**233-215 1K PSI crimp-contact piston-sealed connectors****05 AND B05 PISTON SEAL BANDING PORCH RECEPTACLE, ACCESSORY THREAD OR INTEGRAL BANDING PORCH****05 - ACCESSORY THREAD****B05 - INTEGRAL BANDING PORCH**

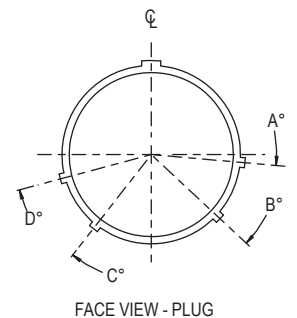
In-line with Integral Backshell Dimensions			
Shell Size	ØT MAX	W	AA THREAD
9	.858 (21.79)	.965 (24.51) .916 (23.27)	M12 X 1.0-6g 0.100R
11	.984 (24.99)		M15 X 1.0-6g 0.100R
13	1.157 (29.39)		M18 X 1.0-6g 0.100R
15	1.280 (32.51)		M22 X 1.0-6g 0.100R
17	1.406 (35.71)		M25 X 1.0-6g 0.100R
19	1.516 (38.51)		M28 X 1.0-6g 0.100R
21	1.642 (41.71)	.935 (23.75) .886 (22.50)	M31 X 1.0-6g 0.100R
23	1.768 (44.91)		M34 X 1.0-6g 0.100R
25	1.890 (48.01)		M37 X 1.0-6g 0.100R

In-line with Integral Backshell Dimensions		
Shell Size	ØDD	ØEE
	In	In
9	.475 (12.07)	.538 (13.67)
11	.600 (15.24)	.662 (16.81)
13	.700 (17.78)	.762 (19.35)
15	.835 (21.21)	.898 (22.81)
17	.960 (24.38)	1.022 (25.96)
19	1.062 (26.97)	1.125 (28.58)
21	1.188 (30.18)	1.250 (31.75)
23	1.275 (32.39)	1.338 (33.99)
25	1.475 (37.47)	1.538 (39.07)

NOTES

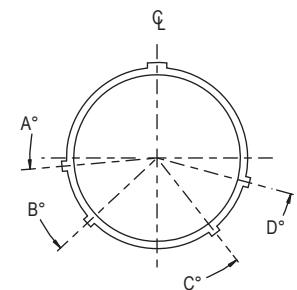
- 233-215 is designed to meet the general requirements of D38999/20, /24 & /26 and MIL-STD-1560
 - Receptacles can be installed into standard panel cutouts.
 - Ingress protection IP68 or better expected
 - Connector accessory threads accept standard backshells
 - Connector accepts standard AS39029 type contacts
 - Connectors cannot be mated to standard MIL-DTL-38999 connectors or protective covers
- 233-215 piston seal interface is rated to 1000 PSI water submersion (2300 FT/700m) when fully mated or protected with 239-200 cover. Cable sealing and panel sealing capability dependent on customer installation
- Use with 233PS215 wall mount receptacle with dual O-ring sealing and tapped hole mounting for improved sealing
- Blue band indicates rear release retention system
- Supplied with contacts (including spares) and insertion/removal tool.
- Material/finish
 - Shell, barrel, coupling nut, jam-nut: see P/N development
 - Ratchet Ring, Detent spring: Stainless steel/passivated
 - insulator: high grade rigid dielectric/N.A.
 - Seals, grommet: fluorosilicone blend/N.A.
 - Contacts: copper alloy / see part P/N development

Key Positions (Plug)				
Alternate Key Code	A°	B°	C°	D°
T	95	135	220	275
V	92	127	253	325
W	70	113	235	322
X	35	135	210	285
Y	54	150	239	314
Z	81	126	202	250



FACE VIEW - PLUG

Keyway Positions (Receptacle)				
Alternate Keyway Code	A°	B°	C°	D°
T	95	135	220	275
V	92	127	253	325
W	70	113	235	322
X	35	135	210	285
Y	54	150	239	314
Z	81	126	202	250



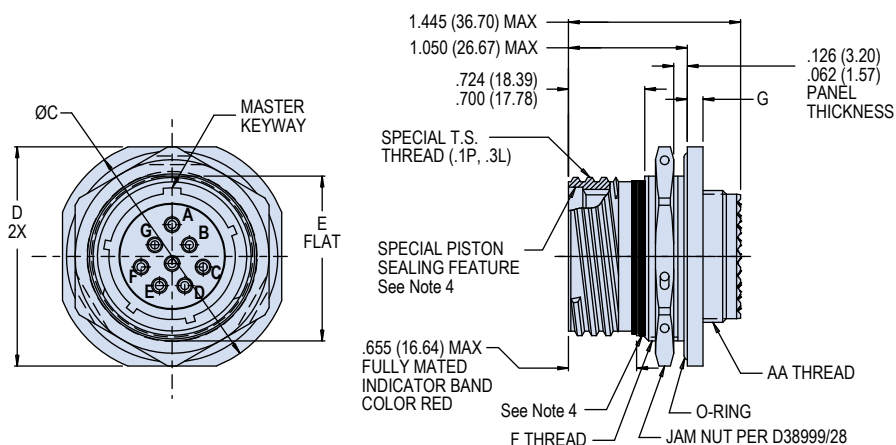
FACE VIEW - RECEPTACLE

MIL-DTL-38999 Series III Type

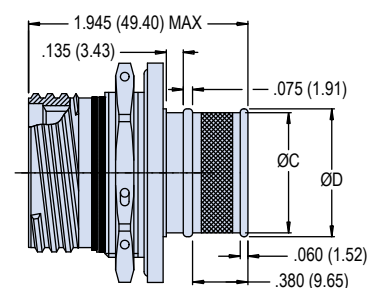
233-215 1K PSI crimp-contact piston-sealed connectors

ENVIRONMENTAL CONNECTORS

-07 AND B07 PISTON SEAL JAM NUT RECEPTACLE, WITH ACCESSORY THREADS OR INTEGRAL BANDING PORCH



07 - ACCESSORY THREAD



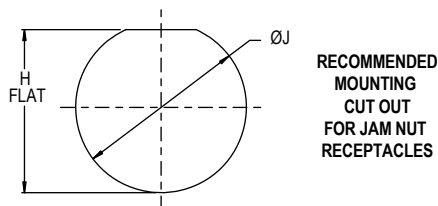
B07 - INTEGRAL BANDING PORCH

Jam Nut Dimensions

Shell Size	ØC	D	E Flat	F Thread	AA Thread	G
9	1.200 (30.48)	1.078 (27.38)	.655 (16.64)	M17 X 1.0	M12 X 1.0	.122 (3.10) .083 (2.11)
	1.178 (29.92)	1.048 (26.62)	.645 (16.38)	-6g 0.100R	-6g 0.100R	
11	1.386 (35.20)	1.268 (32.21)	.755 (19.18)	M20 X 1.0	M15 X 1.0	
	1.362 (34.59)	1.236 (31.39)	.745 (18.92)	-6g 0.100R	-6g 0.100R	
13	1.512 (38.40)	1.390 (35.31)	.942 (23.93)	M25 X 1.0	M18 X 1.0	
	1.488 (37.80)	1.358 (34.49)	.932 (23.67)	-6g 0.100R	-6g 0.100R	
15	1.638 (41.61)	1.516 (38.51)	1.066 (27.08)	M28 X 1.0	M22 X 1.0	
	1.614 (41.00)	1.484 (37.69)	1.056 (26.82)	-6g 0.100R	-6g 0.100R	
17	1.764 (44.81)	1.642 (41.71)	1.191 (30.25)	M32 X 1.0	M25 X 1.0	
	1.740 (44.20)	1.610 (40.89)	1.181 (30.00)	-6g 0.100R	-6g 0.100R	
19	1.949 (49.50)	1.827 (46.41)	1.316 (33.43)	M35 X 1.0	M28 X 1.0	
	1.925 (48.90)	1.795 (45.59)	1.306 (33.17)	-6g 0.100R	-6g 0.100R	
21	2.075 (52.71)	1.953 (49.61)	1.441 (36.60)	M38 X 1.0	M31 X 1.0	.153 (3.89) .114 (2.90)
	2.051 (52.10)	1.921 (48.79)	1.431 (36.35)	-6g 0.100R	-6g 0.100R	
23	2.201 (55.91)	2.079 (52.81)	1.566 (39.78)	M41 X 1.0	M34 X 1.0	
	2.177 (55.30)	2.047 (51.99)	1.556 (39.52)	-6g 0.100R	-6g 0.100R	
25	2.323 (59.00)	2.205 (56.01)	1.691 (42.95)	M44 X 1.0	M37 X 1.0	
	2.299 (58.39)	2.173 (55.19)	1.681 (42.70)	-6g 0.100R	-6g 0.100R	

Integral Banding Porch Dimensions

Shell Size	ØC	ØD
9	.475 (12.07)	.538 (13.67)
11	.600 (15.24)	.662 (16.81)
13	.700 (17.78)	.762 (19.35)
15	.835 (21.21)	.898 (22.81)
17	.960 (24.38)	1.022 (25.96)
19	1.062 (26.97)	1.125 (28.58)
21	1.188 (30.18)	1.250 (31.75)
23	1.275 (32.39)	1.338 (33.99)
25	1.475 (37.47)	1.538 (39.07)



Panel Cut Out Dims.

Shell Size	H Flat	ØJ
9	.703 (17.86)	.657 (16.69)
	.693 (17.60)	.648 (16.46)
11	.835 (21.21)	.771 (19.58)
	.825 (20.96)	.761 (19.33)
13	1.020 (25.91)	.955 (24.26)
	1.010 (25.65)	.945 (24.00)

Panel Cut Out Dims.

Shell Size	H Flat	ØJ
15	1.145 (29.08)	1.085 (27.56)
	1.135 (28.83)	1.075 (27.30)
17	1.270 (32.26)	1.210 (30.73)
	1.260 (32.00)	1.200 (30.48)
19	1.395 (35.43)	1.335 (33.91)
	1.385 (35.18)	1.325 (33.65)

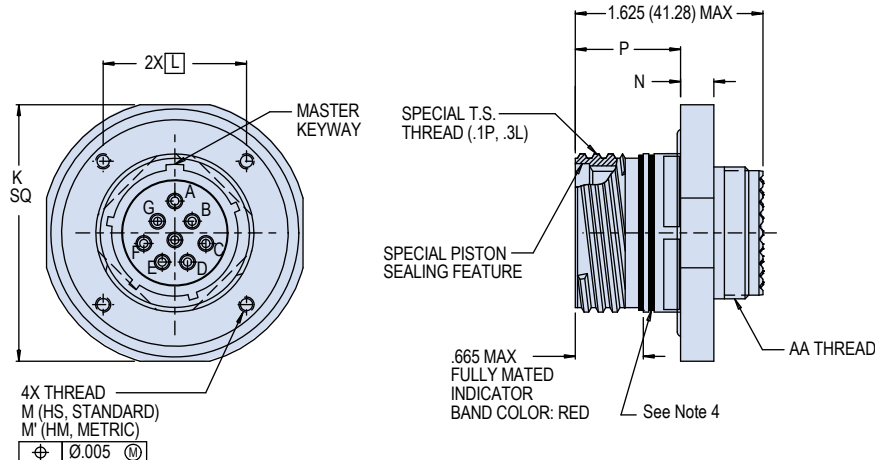
Panel Cut Out Dims.

Shell Size	H Flat	ØJ
21	1.520 (38.61)	1.460 (37.08)
	1.510 (38.35)	1.450 (36.83)
23	1.645 (41.78)	1.585 (40.26)
	1.635 (41.53)	1.575 (40.00)
25	1.770 (44.96)	1.710 (43.43)
	1.760 (44.70)	1.700 (43.18)

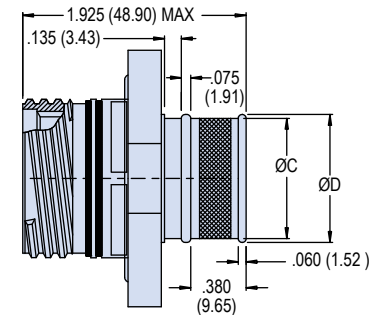
MIL-DTL-38999 Series III Type

233-215 1K PSI crimp-contact piston-sealed connectors

-HS, -HM, BHS AND BHM PISTON SEAL WALL MOUNT RECEPTACLE, WITH ACCESSORY THREAD OR INTEGRAL BANDING PORCH



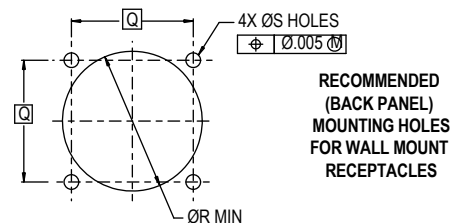
ACCESSORY THREAD
HS - STANDARD HELICOILS
HM - METRIC HELICOILS



INTEGRAL BANDING PORCH
BHS - STANDARD HELICOIL
BHM - METRIC HELICOIL

Wall Mount Dimensions							
Shell Size	K SQ	L BSC	M THD	M' THD	N	P	AA Thread
9	1.516 (38.51) 1.484 (37.69)	.719 (18.26)	#4-40 UNC-2B ↓.220 (5.59)	M3-0.5 ↓.225 (5.72) ↓.220 (5.59)	.285 (7.24) .250 (6.35)	.968 (24.59) .913 (23.19)	M12 X 1.0 -6g 0.100R
11	1.642 (41.71) 1.610 (40.89)	.812 (20.62)					M15 X 1.0 -6g 0.100R
13	1.827 (46.41) 1.795 (45.59)	.906 (23.01)					M18 X 1.0 -6g 0.100R
15	1.953 (49.61) 1.921 (48.79)	.969 (24.61)					M22 X 1.0 -6g 0.100R
17	2.079 (52.81) 2.047 (51.99)	1.062 (26.97)					M25 X 1.0 -6g 0.100R
19	2.205 (56.01) 2.173 (55.19)	1.156 (29.36)					M28 X 1.0 -6g 0.100R
21	2.334 (59.28) 2.302 (58.47)	1.250 (31.75)	#6-32 UNC-2B ↓.275 (6.99) ↓.270 (6.86)	M4X0.7 ↓.275 (6.99) ↓.270 (6.86)	.350 (8.89) .315 (8.00)	.936 (23.77) .881 (22.38)	M31 X 1.0 -6g 0.100R
23	2.522 (64.06) 2.490 (63.25)	1.375 (34.92)					M34 X 1.0 -6g 0.100R
25	2.709 (68.81)	1.500 (38.10)					M37 X 1.0
	2.677 (68.00)						-6g 0.100R

Integral Backshell Dimensions		
Shell Size	ØC	ØD
9	.475 (12.07)	.538 (13.67)
11	.600 (15.24)	.662 (16.81)
13	.700 (17.78)	.762 (19.35)
15	.835 (21.21)	.898 (22.81)
17	.960 (24.38)	1.022 (25.96)
19	1.062 (26.97)	1.125 (28.58)
21	1.188 (30.18)	1.250 (31.75)
23	1.275 (32.39)	1.338 (33.99)
25	1.475 (37.47)	1.538 (39.07)



Panel Cut Out Dims.			
Shell Size	Q BSC	ØR MIN	ØS HOLES
9	.719 (18.26)	.656 (16.66)	.133 (3.38) .123 (3.12)
11	.812 (20.62)	.796 (20.22)	
13	.906 (23.01)	.922 (23.42)	
15	.969 (24.61)	1.047 (26.59)	

Panel Cut Out Dims.			
Shell Size	Q BSC	ØR MIN	ØS HOLES
17	1.062 (26.97)	1.219 (30.96)	.133 (3.38) .123 (3.12)
19	1.156 (29.36)	1.297 (32.94)	
21	1.250 (31.75)	1.422 (36.12)	

Panel Cut Out Dims.			
Shell Size	Q BSC	ØR MIN	ØS HOLES
23	1.375 (34.92)	1.547 (39.29)	.159 (4.04) .149 (3.78)
25	1.500 (38.10)	1.672 (42.47)	.155 (3.94) .145 (3.68)

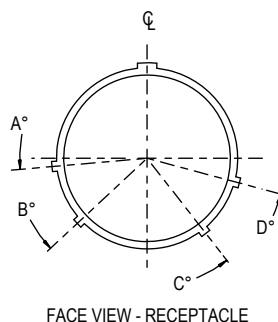
MIL-DTL-38999 Series III Type

233PS215 1K PSI wall-mount receptacle with panel seal

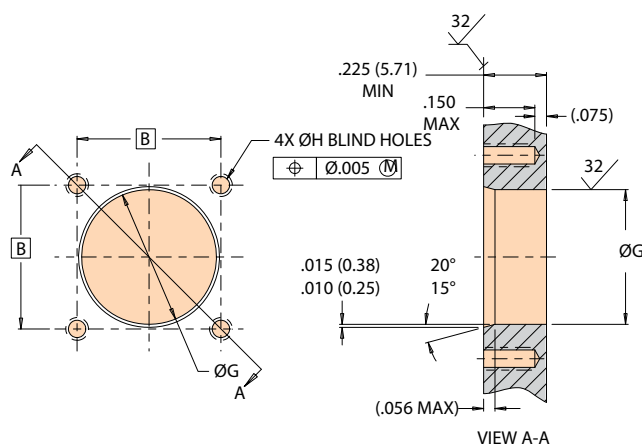
Part Number Development						
Sample Part Number	233PS215	G6	NF	17-8	P	T
Series / Basic Part No.	233PS215 = Improved panel sealing, Series 23 SuperNine with piston seal					
Connector Style*	D0 = Wall mount receptacle with round holes					
Finish	NF = Al alloy/Cadmium Olive Drab ME = Al alloy/electroless Nickel AB = Marine Bronze/NA MT = Al alloy/Nickel PTFE ZR = Al alloy/Black Zinc Nickel Z1 = SST, passivate					
Shell Size-Insert Arrangement*	Per MIL-STD-1560					
Contact Type	P = Pin, gold 1500 cycles A = Less pin contacts H = Pin, Pd/Ni 1500 cycles S = Socket, gold 1500 cycles B = Less socket contacts J = Socket, Pd/Ni 1500 cycles					
Alternate Polarization	V, W, X, Y, Z, T = Normal (IAW MIL-DTL-38999 Series III); see key or keyway position tables					

*Refer to Section A for complete details

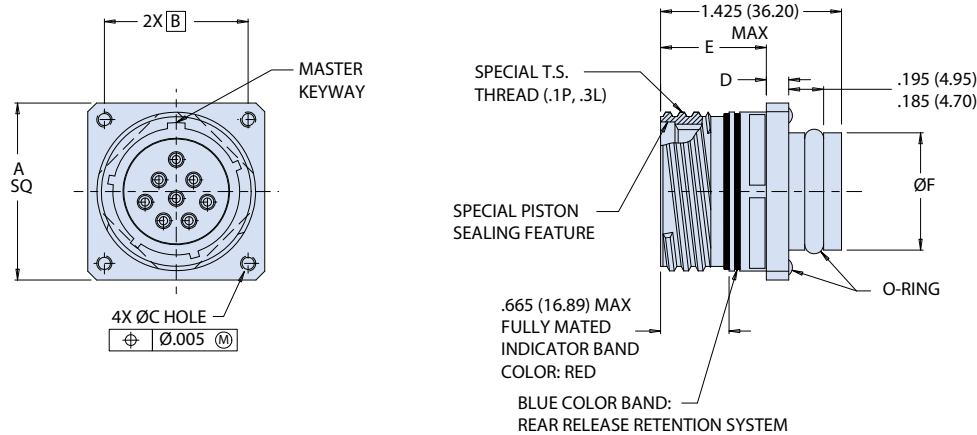
Keyway Positions (Receptacle)				
Alternate Keyway Code	A°	B°	C°	D°
T	95	135	220	275
V	92	127	253	325
W	70	113	235	322
X	35	135	210	285
Y	54	150	239	314
Z	81	126	202	250



Mounting Holes			
Shell Size	B BSC	ØG	ØH Holes
09	.719 (18.26)	.564 (14.33) .562 (14.27)	#4-40 0.150 MAX
11	.812 (20.62)	.689 (17.50) .687 (17.45)	
13	.906 (23.01)	.814 (20.68) .812 (20.62)	
15	.969 (24.61)	.939 (23.85) .937 (23.80)	
17	1.062 (26.97)	1.064 (27.03) 1.062 (26.97)	
19	1.156 (29.36)	1.189 (30.20) 1.187 (30.15)	
21	1.250 (31.75)	1.252 (31.80) 1.250 (31.75)	#6-32 0.150 MAX
23	1.375 (34.92)	1.377 (34.98) 1.375 (34.92)	
25	1.500 (38.10)	1.502 (38.15) 1.500 (38.10)	



RECOMMENDED (FRONT PANEL) MOUNTING HOLES
FOR WALL MOUNT RECEPTACLES
(.225 MIN PANEL THICKNESS)

MIL-DTL-38999 Series III Type**233PS215 1K PSI piston sealed wall-mount receptacle, panel sealed****PISTON SEALED WALL MOUNT RECEPTACLE WITH IMPROVED PANEL SEALING, AND CRIMP CONTACTS**

FD0 - WALL MOUNT RECEPTACLE, WITH ROUND HOLES, FLAT BACK

NOTES

- 233PS215 receptacle is designed to meet the general requirements of D38999/20 and MIL-STD-1560
 - Panel sealed wall mount receptacle requires special panel cutout.
 - Connector accessory threads accept standard backshells
 - Connector accepts standard AS39029 type contacts
 - Connectors cannot be mated to standard MIL-DTL-38999 plugs or protective covers
- 233PS215 piston seal interface is rated to 1000 PSI water submersion (2300 FT/700m) when fully mated or protected with 239-200 cover. Cable sealing and panel sealing capability dependent on customer installation
- Supplied with contacts (including spares) and insertion/removal tool.
- Material/finish
 - Shell: see part number development
 - Insulator: high grade rigid dielectric/ N.A.
 - seals grommet: fluorosilicone blend/N.A.
 - Contacts: copper alloy/see part number development

Dimensions									
Shell Size	A SQ	B BSC	ØC	D	E	ØF			
09	.949 (24.10)	.719 (18.26)	.136 (3.45) .120 (3.05)	.122 (3.10) .083 (2.11)	.968 (24.59) .913 (23.19)	.560 (14.22)			
	.925 (23.50)					.559 (14.20)			
11	1.043 (26.49)	.812 (20.62)				.685 (17.40)			
	1.020 (25.91)					.684 (17.37)			
13	1.138 (28.91)	.906 (23.01)				.810 (20.57)			
	1.114 (28.30)					.809 (20.55)			
15	1.232 (31.29)	.969 (24.61)				.935 (23.75)			
	1.209 (30.71)					.934 (23.72)			
17	1.323 (33.60)	1.062 (26.97)				1.060 (26.92)			
	1.299 (32.99)					1.059 (26.90)			
19	1.449 (36.80)	1.156 (29.36)				1.185 (30.10)			
	1.425 (36.20)					1.184 (30.07)			
21	1.575 (40.00)	1.250 (31.75)				.162 (4.11) .146 (3.71)	.153 (3.89) .114 (2.90)	.936 (23.77) .881 (22.38)	1.248 (31.70)
	1.551 (39.40)								1.247 (31.67)
23	1.701 (43.21)	1.375 (34.92)	1.373 (34.87)						
	1.677 (42.60)		1.372 (34.85)						
25	1.823 (46.30)	1.500 (38.10)	1.498 (38.05)						
	1.799 (45.69)		1.497 (38.02)						