



Sav-Con® connector savers

MIL-DTL-38999 Series III

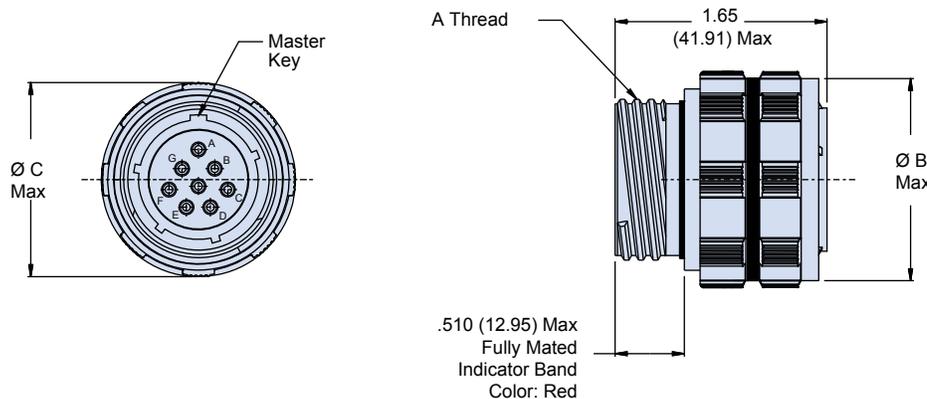
233-213 SuperNine® Threaded Coupling



233-213 HIGH RELIABILITY WITH THREADED COUPLING

| How To Order | |
|--|--|
| Sample Part Number | 233-213 -NF 17-8 P N S N |
| Series / Basic Part No. | 233-213 |
| Finish | NF = Cadmium Olive Drab ME = Electroless Nickel MT = Nickel PTFE ZR = Black Zinc Nickel See Table I for Additional Finishes |
| Shell Size - Insert Arrangement | See Table II |
| Contact Style (Plug Side) | P = Pin, gold, 500 cycles S = Socket, gold, 500 cycles See Notes 3 and 4 |
| Alternate Polarization (Plug Side) | A, B, C, D, E, N = Normal, U = Universal; See Note 6 See Table III |
| Contact Style (Receptacle Side) | P = Pin, gold, 500 cycles S = Socket, gold, 500 cycles See Notes 3 and 4 |
| Alternate Polarization (Receptacle Side) | A, B, C, D, E, N = Normal, U = Universal; See Note 6 See Table III |

B



NOTES

- Glenair's 233-213 connector savers are designed to meet or exceed the mechanical dimensional, electrical, and environmental requirements of MIL-DTL-38999, D38999/20, D38999/26, and MIL-STD-1560 except as shown and /or noted.
- Glenair connector savers mate with any QPL manufacturer's MIL-DTL-38999, series III plugs and receptacles that have the same shell size, insert arrangement, and polarization.
- For pin/pin and socket/socket, symmetrical insert layouts only.
- Power to a given contact on one end will result in power to a contact directly opposite, regardless of identification letter.
- Electrical safety limits must be established by user. Peak voltage, switching surge, transient, etc. should be used to determine the safety application.
- Alternate polarization 'U' (universal) is a non-standard/non-mill-spec option intended for test lab use only which allows for mating to any QPL manufacturer's MIL-DTL-38999, series III connector having the same shell size, insert arrangement, and mating contact size.

| Dimensions | | | | | | |
|-----------------|------------|------------------------------|---------|-------|---------|-------|
| Shell Size Code | Shell Size | A Thread | Ø B Max | | Ø C Max | |
| | | | In | mm | In | mm |
| A | 9 | .6250 - 0.1P - 0.3L - TS-2A | 0.811 | 20.60 | 0.858 | 21.79 |
| B | 11 | .7500 - 0.1P - 0.3L - TS-2A | 0.929 | 23.60 | 0.984 | 24.99 |
| C | 13 | .8750 - 0.1P - 0.3L - TS-2A | 1.110 | 28.19 | 1.157 | 29.39 |
| D | 15 | 1.0000 - 0.1P - 0.3L - TS-2A | 1.232 | 31.29 | 1.280 | 32.51 |
| E | 17 | 1.1875 - 0.1P - 0.3L - TS-2A | 1.358 | 34.49 | 1.406 | 35.71 |
| F | 19 | 1.2500 - 0.1P - 0.3L - TS-2A | 1.469 | 37.31 | 1.516 | 38.51 |
| G | 21 | 1.3750 - 0.1P - 0.3L - TS-2A | 1.594 | 40.49 | 1.642 | 41.71 |
| H | 23 | 1.5000 - 0.1P - 0.3L - TS-2A | 1.720 | 43.69 | 1.768 | 44.91 |
| J | 25 | 1.6250 - 0.1P - 0.3L - TS-2A | 1.843 | 46.81 | 1.890 | 48.01 |



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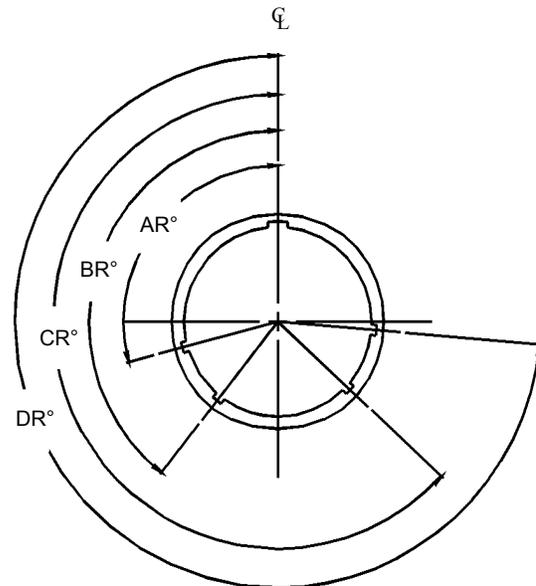
Reference Information



| Plating Code | Material | Finish |
|--------------|-----------------|---|
| M | Aluminum | Electroless Nickel |
| B | | Cad Plate, Olive Drab |
| NF | | Cadmium Plate Olive Drab over Electroless Nickel |
| NC | | Zinc-Cobalt |
| ZN | | Olive Drab Zinc-Nickel |
| MT | | Ni-PTFE 1000 Hour Grey™ (Nickel Fluorocarbon Polymer) |
| ZR | | Zinc Nickel, Black |
| ME | | Electroless Nickel (RoHS) |
| ZL | Stainless Steel | Electro-Deposited Nickel |

Table III: Manin and Alternate Keyway Positions

| Shell Size Code Ref | Shell Size | Alt. Keyway Code | AR° | BR° | CR° | DR° |
|---------------------|------------|------------------|-----|-----|-----|-----|
| A | 9 | N | 105 | 140 | 215 | 265 |
| | | A | 102 | 132 | 248 | 320 |
| | | B | 80 | 118 | 230 | 312 |
| | | C | 35 | 140 | 205 | 275 |
| | | D | 64 | 155 | 234 | 304 |
| B | 11 | N | 95 | 141 | 208 | 236 |
| | | A | 113 | 156 | 182 | 292 |
| | | B | 90 | 145 | 195 | 252 |
| | | C | 53 | 156 | 220 | 255 |
| | | D | 119 | 146 | 176 | 298 |
| C | 13 | N | 80 | 142 | 196 | 293 |
| | | A | 135 | 170 | 200 | 310 |
| | | B | 49 | 169 | 200 | 244 |
| | | C | 66 | 140 | 200 | 257 |
| | | D | 62 | 145 | 180 | 280 |
| D | 15 | N | 80 | 142 | 196 | 293 |
| | | A | 135 | 170 | 200 | 310 |
| | | B | 49 | 169 | 200 | 244 |
| | | C | 66 | 140 | 200 | 257 |
| | | D | 62 | 145 | 180 | 280 |
| E | 17 | N | 80 | 142 | 196 | 293 |
| | | A | 135 | 170 | 200 | 310 |
| | | B | 49 | 169 | 200 | 244 |
| | | C | 66 | 140 | 200 | 257 |
| | | D | 62 | 145 | 180 | 280 |
| F | 19 | N | 80 | 142 | 196 | 293 |
| | | A | 135 | 170 | 200 | 310 |
| | | B | 49 | 169 | 200 | 244 |
| | | C | 66 | 140 | 200 | 257 |
| | | D | 62 | 145 | 180 | 280 |
| G | 21 | N | 80 | 142 | 196 | 293 |
| | | A | 135 | 170 | 200 | 310 |
| | | B | 49 | 169 | 200 | 244 |
| | | C | 66 | 140 | 200 | 257 |
| | | D | 62 | 145 | 180 | 280 |
| H | 23 | N | 80 | 142 | 196 | 293 |
| | | A | 135 | 170 | 200 | 310 |
| | | B | 49 | 169 | 200 | 244 |
| | | C | 66 | 140 | 200 | 257 |
| | | D | 62 | 145 | 180 | 280 |
| J | 25 | N | 80 | 142 | 196 | 293 |
| | | A | 135 | 170 | 200 | 310 |
| | | B | 49 | 169 | 200 | 244 |
| | | C | 66 | 140 | 200 | 257 |
| | | D | 62 | 145 | 180 | 280 |



FACE VIEW
RECEPTACLE INSERT



Sav-Con[®] connector savers

MIL-DTL-38999 Series III

Reference Information



Table II: Shell Size - Insert Arrangement

| Shell Size Code | Shell Size Ref. | Insert Arr. Dash No. | Contact Size | | | |
|-----------------|-----------------|----------------------|--------------|----|----|----|
| | | | 22 | 20 | 16 | 12 |
| A | 9 | 9-3 | | 3 | | |
| | | 9-35 | 6 | | | |
| | | 9-44 | 4 | | | |
| | | 9-98 | | 3 | | |
| B | 11 | 11-2 | | | 2 | |
| | | 11-4 | | 4 | | |
| | | 11-5 | | 5 | | |
| | | 11-6 | | 6 | | |
| | | 11-35 | 13 | | | |
| | | 11-98 | | 6 | | |
| | | 11-99 | | 7 | | |
| C | 13 | 13-4 | | | 4 | |
| | | 13-8 | | 8 | | |
| | | 13-35 | 22 | | | |
| | | 13-98 | | 10 | | |
| D | 15 | 15-5 | | | 5 | |
| | | 15-15 | | 14 | 1 | |
| | | 15-18 | | 18 | | |
| | | 15-19 | | 19 | | |
| | | 15-35 | 37 | | | |
| E | 17 | 17-6 | | | | 6 |
| | | 17-8 | | | 8 | |
| | | 17-26 | | 26 | | |
| | | 17-35 | 55 | | | |
| | | 17-99 | | 21 | 2 | |
| F | 19 | 19-11 | | | 11 | |
| | | 19-28 | | 26 | 2 | |
| | | 19-30 | | 29 | 1 | |
| | | 19-32 | | 32 | | |
| | | 19-35 | 66 | | | |
| 19-45 | 67 | | | | | |

Table II: Shell Size - Insert Arrangement

| Shell Size Code | Shell Size Ref. | Insert Arr. Dash No. | Contact Size | | | |
|-----------------|-----------------|----------------------|--------------|----|----|----|
| | | | 22 | 20 | 16 | 12 |
| G | 21 | 21-35 | 79 | | | |
| | | 21-11 | | | | 11 |
| | | 21-16 | | | 16 | |
| | | 21-24 | | 24 | | |
| | | 21-25 | | 25 | | |
| | | 21-27 | | 27 | | |
| | | 21-39 | | 37 | 2 | |
| H | 23 | 21-41 | | 41 | | |
| | | 23-35 | 100 | | | |
| | | 23-2 | 85 | | | |
| | | 23-21 | | | 21 | |
| | | 23-32 | | 32 | | |
| | | 23-34 | | 34 | | |
| | | 23-36 | | 36 | | |
| | | 23-53 | | 53 | | |
| | | 23-55 | | 55 | | |
| | | 23-97 | | | 16 | |
| J | 25 | 23-99 | | | 11 | |
| | | 25-2 | 100 | | | |
| | | 25-4 | | 48 | 8 | |
| | | 25-19 | | | | 19 |
| | | 25-24 | | | 12 | 12 |
| | | 25-29 | | | 29 | |
| | | 25-35 | 128 | | | |
| | | 25-43 | | 23 | 20 | |
| 25-61 | | 61 | | | | |

Table IV: Capacitor Array Code Capacitance Range for Filtered Connectors

| Class | Pi - Circuit (pF) | C - Circuit (pF) |
|-------|-------------------|------------------|
| X* | 160,000 - 240,000 | 80,000 - 120,000 |
| Y* | 80,000 - 120,000 | 40,000 - 60,000 |
| Z* | 60,000 - 90,000 | 30,000 - 45,000 |
| A | 38,000 - 56,000 | 19,000 - 28,000 |
| B | 32,000 - 45,000 | 16,000 - 22,500 |
| C | 18,000 - 33,000 | 9,000 - 16,500 |
| D | 8,000 - 12,000 | 4,000 - 6,000 |
| E | 3,300 - 5,000 | 1,650 - 2,500 |
| F | 800 - 1,300 | 400 - 650 |
| G | 400 - 600 | 200 - 300 |
| J | 70-120 | 35-60 |

* Filter Classes X, Y and Z are 250 VDC.
All others are 500 VDC