INCH-POUND
MS3120F
6 June 2003
SUPERSEDING
MS3120E
5 September 1975

## DETAIL SPECIFICATION SHEET

CONNECTORS, RECEPTACLE, ELECTRICAL, CRIMP TYPE, WALL MOUNTING, FLANGE, No 4 HOLES, BAYONET COUPLING CLASSES E, F AND P

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-C-26482.

Inactive for new design after 5 September 1975.


FIGURE 1. Receptacle, style P (pin insert), for classes E, F, and P.


FIGURE 1. Receptacle, style S (socket insert), for classes E, F, and P.

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| Size | HH <br> max id gasket | P <br> $\max$ |
| :---: | :---: | :---: |
| 8 | .329 |  |
| 10 | .457 | .087 |
| 12 | .564 |  |
| 14 | .689 |  |
| 16 | .814 |  |
| 18 | .907 |  |
| 20 | 1.039 | .212 |
| 22 | 1.164 |  |
| 24 | 1.289 |  |

NOTES:

1. Dimensions in inches.
2. Distance between end of shell and the point at which a gage pin having the same basic diameter as the mating contact and a square face first engages socket contact spring.
3. Packing material shall meet the requirements of ASTM-D2000.
4. True position (TP) tolerances specified are in accordance with ANSI Y14.5.
5. Material: shell-aluminum alloy; bayonet pins (B dia) - stainless steel, passivated.

FIGURE 1. Dimensions for classes $E, F$, and $P$.

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| Size | $\begin{gathered} \mathrm{A} \\ \text { dia } \\ +.001 \\ -.005 \\ \text { od } \end{gathered}$ | $\begin{gathered} \mathrm{B} \\ +.006 \\ -.002 \\ \text { bay } \\ \text { pin } \\ \text { dia } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { C } \\ \text { dia } \\ +.000 \\ -.016 \\ \text { over } \\ \text { bay pins } \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{D} \\ \mathrm{dia} \\ +.005 \\ -.001 \\ \text { id } \end{gathered}$ | $\begin{gathered} \mathrm{H} \\ +.000 \\ -.020 \\ \text { socket } \\ \text { insert } \\ \text { location } \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | . 473 | . 078 | . 563 | . 362 | . 025 |
| 10 | . 590 |  | . 680 | . 490 |  |
| 12 | . 750 |  | . 859 | . 607 |  |
| 14 | . 875 |  | . 984 | . 732 |  |
| 16 | 1.000 |  | 1.108 | . 857 |  |
| 18 | 1.125 |  | 1.233 | . 962 |  |
| 20 | 1.250 |  | 1.358 | 1.087 | . 087 |
| 22 | 1.375 |  | 1.483 | 1.212 |  |
| 24 | 1.500 | . 125 | 1.610 | 1.337 |  |


| Size | $\begin{gathered} \mathrm{I} \\ \max \\ \text { insert } \\ \text { dia } \end{gathered}$ | $\begin{gathered} \mathrm{J} \\ \pm .010 \\ \text { packing } \\ \text { location } \end{gathered}$ | $\begin{gathered} \mathrm{JJ} \\ +.000 \\ -.020 \\ \mathrm{pin} \end{gathered}$ insert location | K +.016 thick mounting flange | $\begin{gathered} \mathrm{M} \\ +.031 \\ . .000 \end{gathered}$ <br> mounting flange location |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | . 285 | . 382 | . 332 | . 062 | . 431 |
| 10 | . 402 |  |  |  |  |
| 12 | . 516 |  |  |  |  |
| 14 | . 641 |  |  |  |  |
| 16 | . 766 |  |  |  |  |
| 18 | . 855 |  |  |  |  |
| 20 | . 980 | . 444 | . 394 | . 094 | . 556 |
| 22 | 1.105 |  |  |  |  |
| 24 | 1.229 |  |  |  | . 589 |

FIGURE 1. Dimensions for classes $E, F$, and $P$.

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| Size | Q <br> dia <br> d.005 <br> -.006 <br> over <br> kwys | R | R <br> (TP) <br> mounting <br> holes | S <br> max <br> length <br> side | T <br> $\pm .005$ <br> dia <br> mounting <br> holes |
| :---: | :---: | :---: | :---: | :---: | :---: | | U <br> +.010 <br> -.020 <br> pin <br> contact <br> location |
| :---: |
|  |


| Size | $\begin{gathered} \text { W } \\ \text { (TP) } \\ \text { bay pin } \\ \text { location } \end{gathered}$ | Z (B) <br> $+.000$ <br> -. 078 <br> socket contact spring location | VV <br> class 2A accessory thread | EE min edge dist |
| :---: | :---: | :---: | :---: | :---: |
| 8 | . 100 | . 153 | 7/16-28 | . 035 |
| 10 |  |  | 9/16-24 |  |
| 12 |  |  | 11/16-24 |  |
| 14 |  |  | 13/16-20 |  |
| 16 |  |  | 15/16-20 |  |
| 18 |  |  | 1-1/16-18 |  |
| 20 |  | . 215 | 1-3/16-18 | . 050 |
| 22 |  |  | 1-5/16-18 |  |
| 24 | . 109 |  | 1-7/16-18 |  |

FIGURE 1. Dimensions for classes $E, F$, and $P$.


| Size | L $\max$ over-all length | $\begin{gathered} X \\ \text { Xia } \\ \text { min } \\ \text { id } \end{gathered}$ | $\begin{gathered} \mathrm{Y} \\ \mathrm{dia} \\ \max \\ \mathrm{od} \\ \hline \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| 8 | 1.552 | . 259 | . 608 |
| 10 |  | . 359 | . 734 |
| 12 |  | . 469 | . 858 |
| 14 |  | . 589 | . 984 |
| 16 |  | . 717 | 1.110 |
| 18 |  | . 779 | 1.234 |
| 20 | 1.709 | . 901 | 1.360 |
| 22 |  | 1.009 | 1.484 |
| 24 |  | 1.123 | 1.610 |

FIGURE 1. Dimensions for class E.

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Bushing removed

FIGURE 1. Dimensions for class F.

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| Size | L <br> max <br> over-all length | $\begin{gathered} \mathrm{X} \\ \text { dla } \\ \text { min } \\ \text { open } \end{gathered}$ | $\begin{gathered} Y \\ \max \end{gathered}$ | $\begin{gathered} \mathrm{V} \\ \max \\ \text { closed } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| 8 | 2.422 | . 234 | . 828 | . 187 |
| 10 |  | . 297 | . 891 | . 187 |
| 12 |  | . 422 | 1.016 | . 281 |
| 14 |  | . 547 | 1.141 | . 325 |
| 16 | 2.537 | . 609 | 1.203 | . 356 |
| 18 |  | . 734 | 1.469 | . 456 |
| 20 | 2.824 |  |  |  |
| 22 |  | . 922 | 1.656 | . 519 |
| 24 | 2.900 | . 984 | 1.750 | . 657 |


| Size | $\mathrm{N}(\mathrm{G})$ free dia | $\begin{gathered} \hline \text { ZZ } \\ \text { screw } \\ \text { threads } \end{gathered}$ | $\begin{gathered} \hline \text { YZ } \\ \text { lock washers } \\ \text { NASM35338 OR NASM35333 } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| 8 | . 125 | 6-32UNC | NASM35338B6L OR -6L |
| 10 | . 188 |  |  |
| 12 | . 312 |  |  |
| 14 | . 375 |  | NASM35333-105 OR |
| 16 | . 500 |  | NASM35333-37 |
| 18 | . 625 | 8-32UNC | NASM35338B6L OR -6L |
| 20 | . 625 |  |  |
| 22 | . 750 |  |  |
| 24 | . 800 |  | NASM35333-106 OR <br> NASM35333-38 |

FIGURE 1. Dimensions for class F.

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| Size | L <br> max <br> over-all length | X <br> dia <br> min <br> id | Y <br> dia <br> max <br> od | $\begin{aligned} & \mathrm{PP} \\ & \mathrm{~min} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 8 | 1.675 | . 317 | . 608 | . 250 |
| 10 |  | . 434 | . 734 |  |
| 12 |  | . 548 | . 858 |  |
| 14 |  | . 673 | . 984 |  |
| 16 |  | . 798 | 1.110 |  |
| 18 |  | . 899 | 1.234 |  |
| 20 | 1.963 | 1.024 | 1.360 |  |
| 22 | 1.963 | 1.149 | 1.484 |  |
| 24 | 2.025 | 1.274 | 1.610 |  |

FIGURE 1. Dimensions for class P.

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## REQUIREMENTS:

Dimensions and configuration: See figures 1 and 2.
Connector mating: This connector mates with MS3121 and MS3126.
Insert arrangement shall be in accordance with MIL-STD-1669.
Sealing member: Bonded to vitreous insert.
Packing material shall meet the requirements of ASTM-D2000.
Part or Identifying Number (PIN) example:


CONCLUDING MATERIAL

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