

# EMI SUPPRESSING HEADER (Straight, Dual Insulator)

## FEATURES

- Dual insulator design adds mechanical stability
- Suppression plates help reduce EMI/RFI interference
- Insulator standoffs reduce rework due to flux residue
- Coined tails improve solder action
- Mates with Crane's ATP, ATL, MATP, ATS and BBP Sockets

## STANDARD PART DIMENSIONS

### MATING

### Dual Row

**P** POST LENGTH

**I** INSULATOR SPACING

**L** PIN LENGTH

Please refer to the chart on the next page for a wide selection of common board spacing options. Call us if the size you need is not listed.

### INSULATOR BODY

### Dual Row

**W** WIDTH

**H** HEIGHT

**S** STANDOFF

0.198" / 5,03mm

0.098" / 2,49mm

0.015" / 0,38mm

## MATERIALS

INSULATOR BODY

Glass Filled Polyester (UL94V-O)

POST

Phosphor Bronze

SUPPRESSION MATERIAL

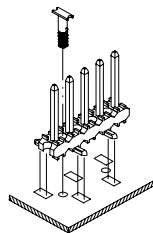
High Volume Resistivity ferrite material with maximum operating temperature of 150°C

## OPTIONAL HOLD-DOWN PEGS

Crane's hold-down pegs (top and bottom entry available) secure part...

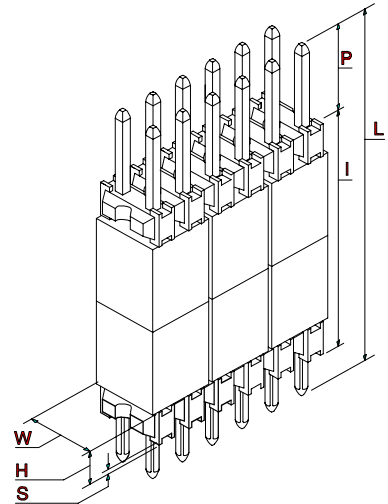
### SMT or THRU-HOLE

... to the PC board preventing misalignment during handling and soldering.



Crane header with Top Entry Peg

## DOUBLE ROW (2 to 80 Positions)



## DESIGN NOTE

Noise or electromechanical interference (EMI) can play havoc with electronic products today. With the continual growth of high speed systems and equipment, the need for EMI solutions has risen.

Crane connectors – sockets and headers with FERRITE slabs captured between insulators – provide a space saving inductive device that will suppress (minimize or eliminate) the effects of EMI.

See SPECIFICATIONS and PERFORMANCE DATA for more detail

**SAMPLE HOTLINE: 1-800-676-7644**

|  |  |       |                              |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|--|--|-------|------------------------------|---|-----------------------|---|----|---|---|----|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| <b>0.100" (2,54mm) Centers<br/>0.025" (0,64mm) Square<br/>Mating Posts</b>   | <b>HOW TO ORDER CRANE'S FMPEG SERIES</b> |       |                              |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | <b>STANDARD PART NUMBER</b>              |       |                              |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>PRODUCT SERIES</b>  | FMPE<br>G                                |       |                              |   |                       |   | -- |   |   | -- |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>TOTAL NUMBER OF POSITIONS</b>   | DUAL                                     | 02-80 |                              |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>NUMBER OF ROWS</b>  | DUAL                                     |       | D                            |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>TYPE OF HEADER</b>  | STRAIGHT                                 |       |                              | S |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>PLATING (See Below For Specifications)</b>  | CHOOSE G, T or M, H, L, F                |       |                              |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| Due to the wide number of options, not all platings are stocked for all pin lengths. Contact factory for availability. |  |       |                              |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>TAIL OPTIONS</b>  | COINED                                   |       | 0.028" / 0,71mm DIAGONAL     |   |                       | R |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | KINKED                                   |       | 0.028" / 0,71mm DIAGONAL     |   |                       | K |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | FINE LINE*                               |       | 0.018" / 0,46mm DIAGONAL     |   |                       | F |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | SQUARE                                   |       | 0.025" / 0,64mm DIAGONAL     |   |                       | Q |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| *The FINE LINE option is not available in all pin lengths.   |  |       |                              |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>SELECTED OPTIONS</b>  | <b>POST LENGTH "P"</b>                   |       | <b>INSULATOR SPACING "I"</b> |   | <b>PIN LENGTH "L"</b> |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | 0.100" = D                               |       | 0.250" = D                   |   | 0.455" = G            |   |    | D | D | G  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | 0.200" = Q                               |       | 0.325" = U                   |   | 0.640" = N            |   |    | Q | U | N  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | 0.150" = K                               |       | 0.375" = F                   |   | 0.640" = N            |   |    | K | F | N  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | 0.230" = B                               |       | 0.375" = F                   |   | 0.745" = R            |   |    | B | F | R  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | 0.190" = O                               |       | 0.450" = W                   |   | 0.745" = R            |   |    | O | W | R  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | 0.230" = B                               |       | 0.500" = I                   |   | 0.840" = V            |   |    | B | I | V  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|  | 0.125" = H                               |       | 0.700" = N                   |   | 0.935" = X            |   |    | H | N | X  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| <b>FREQUENCY RANGE</b>   | NORMAL                                   |       | 60 to 300 MHz                |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  | N |   |
|  | HIGH                                     |       | 100 to 500 MHz               |   |                       |   |    |   |   |    |  |  |  |  |  |  |  |  |  |  |  |  |  |   | H |

The height of the ferrite material will vary based on the insulator spacing. Contact the factory for information on standard parts.

**JUST A SAMPLING! Contact Crane for MORE options.**



Crane's dual insulator headers with EMI Suppression Plates are available in a variety of sizes and thicknesses in both DUAL ROW and SINGLE ROW options. Due to the number of combinations, it is impossible for us to list anything more than a sampling of what's available. For more information – samples, quotes, prints – contact the factory with your exact requirements. Better still, just fax us your design and we'll do the rest.

**SAMPLE HOTLINE: 1-800-676-7644**

# CRANE CONNECTORS - PLATING SPECIFICATIONS

| PLATING OPTIONS |            | CONTACT AREA<br>Inches (Millimeters) | PC TAIL<br>Inches (Millimeters)      | UNDERPLATE<br>Inches (Millimeters) |
|-----------------|------------|--------------------------------------|--------------------------------------|------------------------------------|
| <b>G</b>        | Selective  | 15 $\mu$ " (0,00038) gold            | 100 $\mu$ " (0,00254) Tin/Lead - Min | 50 $\mu$ " (0,00127) Nickel - Min. |
| <b>T</b>        | Tin / Lead | 100 $\mu$ " (0,00254) Tin / Lead     | 100 $\mu$ " (0,00254) Tin/Lead - Min | 50 $\mu$ " (0,00127) Nickel - Min. |
| <b>M</b>        | Selective  | 50 $\mu$ " (0,00127) Gold            | 100 $\mu$ " (0,00254) Tin/Lead - Min | 50 $\mu$ " (0,00127) Nickel - Min. |
| <b>H</b>        | Selective  | 30 $\mu$ " (0,00076) Gold            | 100 $\mu$ " (0,00254) Tin/Lead - Min | 50 $\mu$ " (0,00127) Nickel - Min. |
| <b>L</b>        | Selective  | 10 $\mu$ " (0,00025) Gold            | 100 $\mu$ " (0,00254) Tin/Lead - Min | 50 $\mu$ " (0,00127) Nickel - Min. |
| <b>F</b>        | Selective  | 3 $\mu$ " (0,00008) Gold             | 100 $\mu$ " (0,00254) Tin/Lead - Min | 50 $\mu$ " (0,00127) Nickel - Min. |

| STANDARD TAIL OPTIONS ON 0.100" (2,54mm) PIN STRIP HEADERS  |  |   |  |
|---|--|---|--|
| "R"<br>COINED   | "K"<br>KINKED  | "F"<br>FINE   | "Q"<br>SQUARE  |
| The standard "R" option provided a coined tail improving solder action while making insertion easier. | The "K" option provides a kinked tail, reducing unwanted movement on the PC board. | The "F" option combines an 0.018" rounded tail with an 0.025" square post. This fine line feature allows more traces between holes. | The "Q" option provides an 0.025" square tail for use in wire wrap applications. |

| STANDARDS  |   |
|--|---|
| <br>UL File No. E120111 (N)         | ISO9001<br><br>Crane Connectors<br>File No. A-3620 |
| Recognized to U.S. and Canadian requirements under the Component Recognition Program of Underwriters Laboratories Inc. | Registered by UL to ISO9001 under UL's accreditation by Raad voor de Certificatie (RvC), the Dutch Council for Certification.         |

ENGINEERING NOTE: The information presented in this catalog page is accurate to the best of our knowledge. Due to ongoing efforts to advance design and material performance, the information is subject to change without notice.

**SAMPLE HOTLINE: 1-800-676-7644**

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