# 3M<sup>™</sup> MetPak<sup>™</sup> 2-FB Socket

#### 2 mm 4/5-Row, Solder Tail or Press-Fit With Tail Cover, Right Angle

<ul> <li>End-to-end stackable</li> <li>Offset dual-beam contact minimizes insertion</li> <li>Expanded pin counts</li> <li>Protective Push-Cap</li> <li>Monoblockable</li> <li>Press or heat stake peg</li> <li>12 mm modular units</li> <li>Meets global IEC 61076-4-104 Futurebus+<sup>®</sup> s</li> <li>See the Regulatory Information Appendix (RI in the "RoHS compliance" section of www.3Mconnector.com for compliance information (RIA E1 &amp; C1 apply)</li> </ul>	standard IA)
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## **Physical**

Insulation:	
Material:	High Temp LCP
Flammability:	UL 94V-0
Color:	Beige
<b>Contact:</b>	
Material:	Copper Alloy
Plating:	
Underplating:	50 μ" (1.27 μm) Nickel
Wiping Area:	See Ordering Information
Solder Tails:	See Ordering Information

## **Electrical**

Current Rating:Signal: 1.5 A - All contacts simultaneouslyInsulation Resistance: $10^3 M\Omega$ Withstanding Voltage: $1,000 V_{AC}$ 

## Environmental

Temperature Rating:-55° C to 125° CProcess Temperature Rating:260°C (Profile per J-STD-020C)Moisture Sensitivity Level:1 (per J-STD-020C)

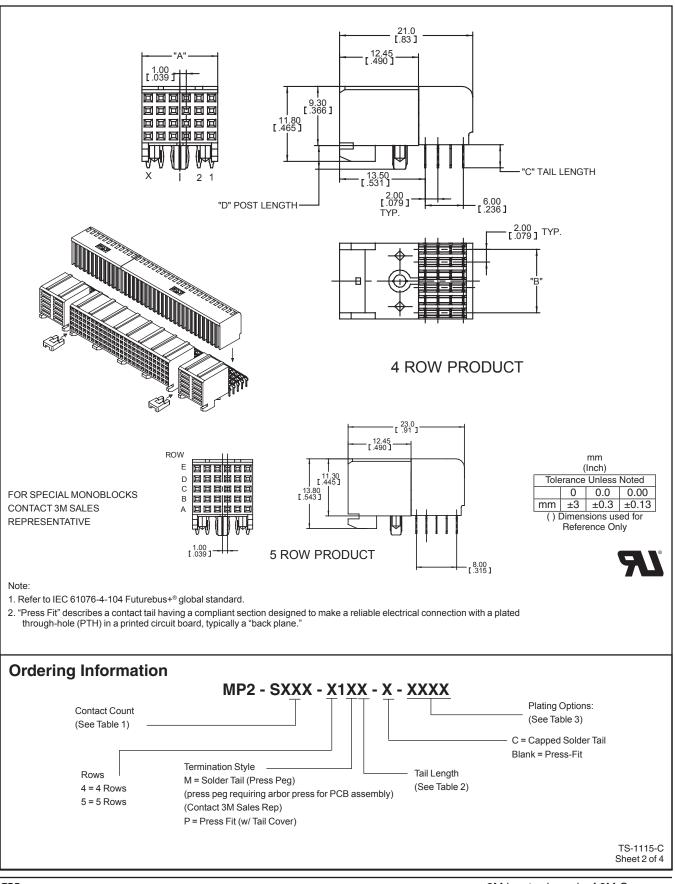
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UL File No.: E68080

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# 3M<sup>™</sup> MetPak<sup>™</sup> 2-FB Socket 2 mm 4/5-Row, Solder Tail or Press-Fit With Tail Cover, Right Angle

**MP2** Series



ЗМ

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MP2 Series

Table 1 - Connector & Row Lengths						
Pin Count	Dim "A" mm (Inch)		Dim "B" mm (Inch)		Rows	Block Count
024	11.95	[0.471]	10.00	[0.394]	4	1
048	23.95	[0.943]	22.00	[0.866]	4	2
072	35.95	[1.415]	34.00	[1.339]	4	3
096	47.95	[1.889]	46.00	[1.811]	4	4
120	59.95	[2.36]	58.00	[2.283]	4	5
144	71.95	[2.833]	70.00	[2.756]	4	6
168	83.95	[3.305]	82.00	[3.228]	4	7
192	95.95	[3.778]	94.00	[3.701]	4	8
030	11.95	[0.471]	10.00	[0.394]	5	1
060	23.95	[0.943]	22.00	[0.866]	5	2
090	35.95	[1.415]	34.00	[1.339]	5	3
120	47.95	[1.888]	46.00	[1.811]	5	4
150	59.95	[2.361]	58.00	[2.283]	5	5
180	71.95	[2.833]	70.00	[2.756]	5	6
210	83.95	[3.305]	82.00	[3.228]	5	7
240	95.95	[3.778]	94.00	[3.701]	5	8

Table 2 - Tail & Post Lengths				
Contact-to-PC Board Tail Termina- tion Option No.		Dim "C"	Dim. "D"	
Solder	Press-Fit*			
M1		2.72 [0.107]	3.57 [0.141]	
M2	P1	3.53 [0.139]	3.57 [0.141]	

\*Compliant-Pin Tail

Table 3 - Plating			
Plating Suffix	Press-Fit Tails*	Solder Tails	Plating Composition
TG30	(RIA E2 & C2 apply)	(RIA E3 & C2 apply)	0.76 μm [30 μ"] Min. Au Contact Area 2.54 μm [100 μ"] Min. SnPb Tail Area 1.27 μm [50 μ"] Min. Ni all over
TR30	(RIA E2 & C2 apply)	(RIA E3 & C2 apply)	0.08 μm [3 μ"] Min. Au Contact Area 0.67 μm [27 μ"] Min. PdNi Contact Area 2.54 μm [100 μ"] Min. SnPb Tail Area 1.27 μm [50 μ"] Min. Ni all over
FJ	(RIA E1 & C1 apply)	(RIA E1 & C1 apply)	0.25 μm [10 μ"] Min. Au Contact Area 2.54 μm [100 μ"] Min. Matt Whisker Mitigating Sn Tail Area 1.27 μm [50 μ"] Min. Ni all over
KR	(RIA E1 & C1 apply)	(RIA E1 & C1 apply)	0.76 μm [30 μ"] Min. Au Contact Area 2.54 μm [100 μ"] Min. Matt Whisker Mitigating Sn Tail Area 1.27 μm [50 μ"] Min. Ni all over
LR	(RIA E1 & C1 apply)	(RIA E1 & C1 apply)	0.08 μm [3 μ"] Min. Au Contact Area 0.67 μm [27 μ"] Min. PdNi Contact Area 2.54 μm [100 μ"] Min. Matt Whisker Mitigating Sn Tail Area 1.27 μm [50 μ"] Min. Ni all over

\*Compliant-Pin Tail

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# 3M<sup>™</sup> MetPak<sup>™</sup> 2-FB Socket 2 mm 4/5-Row, Solder Tail or Press-Fit With Tail Cover, Right Angle

6.00 [.236] 2.00 .079 ] ЗX THESE HOLES CONSTITUTE MODULAR 4.00 [.157] REPEATING PATTERN 2.00 [.079] 1.00 [.039] TYP •• Ð O 000 Ô 00 0 4.00 [.157] 00000 000 O O 0000 000 0000 000 Ο 00 0  $\Omega$ 12.00 [.472] "B" O O 000 Ο 0000 0 0000 0 0000 0000  $(\pm)$ 0 0000 0000 0000 Ø [ 2.05 +.05 -.00 .081 +.002 ] ♥ Ø 0.10 0000 Ο 000 000 8 UNPLATED THROUGH-HOLE Ø [ .059 <sup>+.10</sup>/<sub>-.00</sub> .059 <sup>+.004</sup>/<sub>-.000</sub> ] ♥ Ø 0.10 2.00 [.079] "D" PLATED THROUGH-HOLE **∲**Ø0.10 4X 8.00 [.315] 3.00 [.118] UNPLATED THROUGH-HOLE **RECOMMENDED 4 ROW PCB HOLE RECOMMENDED 5 ROW PCB HOLE** MOUNTING PATTERN MOUNTING PATTERN Table 4 -- HOLE PLATING For TG30 and TR30 FINISHES ONLY HOLE Finished Dia. Cu Thickness SnPb Thickness Drilled Hole Dia. microns [µ"] mm [in] mm [in] mm [in] "D" 0.65-0.80 [.0256-.0315] 0.025 [.001] min 15 [600] max 0.81-0.86 [.0319-.0339] Table 5 -- HOLE PLATING For KR and LR FINISHES ONLY HOLE Finished Dia. **Cu Thickness Immersion Matte Sn Electrolitic Au OSP ENTEK** Drilled Hole Dia. Thickness microns [µ"] Thickness microns [µ"] mm [in] mm [in] mm [in] Thickness microns [µ"] "D" 0.700-0.800 0.025-0.045 0.5 - 2.5 0.1 - 0.5 0.2 - 0.5 0.830-0.860 [.0330-.0340] or [.0276-.0315] [0.001-0.002] [20 - 100] [4 - 20] [8 - 20] 0.85mm [ #66 ] TWIST DRILL

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