.100” × .100” Low Profile Header
Straight & Right Angle, 4 Wall, High Temp Option

- Low profile, space saving design
- Socket compatibility for current design validation
- Center slot polarization prevents mis-insertions and reduces insertion time
- Dual slot polarization means broader compatibility with competitive polarization designs
- Optional retainer clamp for locking sockets in place and increasing connection reliability in vibration-prone environments
- Optional snap-in latches available
- Optional polarizing post available
- Exposed solder tails (on right angle version) provide ease of cleaning and reduced repair costs

**Physical**

**Insulation**
- Material: Glass Filled Polyester (PBT)
- Flammability: UL 94V-0
- Color: Gray
- Marking: 3M Logo, and Orientation Triangle

**Contact**
- Material: Copper Alloy
- Plating:
  - Underplate: 100 µ” [2.54 µm] Nickel — QQ-N-290, Class 2
  - Wiping Area: Gold — MIL-G-45204, Type II, Grade C
  - Solder Tails: 200 µ” [5.08 µm] 60/40 Tin Lead — MIL-P-81728
  - Wrap Tails: Gold Flash (Normal Temp Only)

**Electrical**

- **Current Rating:** 2 A
- **Insulation Resistance:** >1 × 10⁹ Ω at 500 Vdc
- **Withstanding Voltage:** 1000 Vrms at Sea Level

**Environmental**

- **Temperature Rating:** –55°C to +105°C
  - Processing: Maximum 235°C, with 90 seconds over 215°C (High Temp Option)

UL File No.: E68080

3M Interconnect Solutions Division
6801 River Place Blvd.
Austin, TX 78726-9000

For technical, sales or ordering information call
800-225-5373
.100” \times .100” \text{ Low Profile Header} \\
Straight & Right Angle, 4 Wall, High Temp Option

Table 2

<table>
<thead>
<tr>
<th>Tail</th>
<th>Dimension E</th>
<th>Pin Cross Section</th>
<th>Corner Radii</th>
<th>Dim G ± .003</th>
</tr>
</thead>
<tbody>
<tr>
<td>X2</td>
<td>.112 [2.84]</td>
<td>0.0245 ± .0005 [0.0622]</td>
<td>0.0075 Ref [0.191]</td>
<td>0.035 [0.089]</td>
</tr>
<tr>
<td>03</td>
<td>.155 [3.94]</td>
<td>0.0245 ± .0005 [0.0622]</td>
<td>0.0075 Ref [0.191]</td>
<td>0.035 [0.089]</td>
</tr>
<tr>
<td>05</td>
<td>.61 Ref [15.5]</td>
<td>0.0250 ± .0002 [0.0635]</td>
<td>0.003 Max [0.08]</td>
<td>0.045 [1.14]</td>
</tr>
</tbody>
</table>

Notes:
1. Notches "A" and "C" will accommodate 3M Polarizing Keys 3518.
2. The recommended PCB hole size for the kinked tail positions on the .112” solder tail connector is .035” ± .002.

Refer to TS-0972 for the positions kinked.

Recommended P.C. Board Hole Pattern
(Shown for mounting side of board.)

Notches A and C will accommodate 3M Polarizing Keys 3518.

The recommended PCB hole size for the kinked tail positions on the .112.” solder tail connector is .035” ± .002.

Refer to TS-0972 for the positions kinked.

Ordering Information

X25XX-X0XXXX

Pin Quantity: See Table 1

Mating Plating Thickness:
Solder Tail Versions
UG = 15 µ” [0.38 µm]
UB = 30 µ” [0.76 µm]
Wrap Tail Versions
EB = 30 µ” [0.76 µm]
(Normal temp only)

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Sheet 2 of 3
## Table 1

<table>
<thead>
<tr>
<th>Pin Qty</th>
<th>Dimensions</th>
<th>Polarizing Notches</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>.788 [20.02]</td>
<td>.708 [17.98] B C</td>
</tr>
<tr>
<td>16</td>
<td>1.088 [27.64]</td>
<td>1.008 [25.60] A B C D E</td>
</tr>
<tr>
<td>24</td>
<td>1.488 [37.80]</td>
<td>1.408 [35.76] A B C D E</td>
</tr>
<tr>
<td>26</td>
<td>1.588 [40.34]</td>
<td>1.508 [38.30] A B C D E</td>
</tr>
<tr>
<td>30</td>
<td>1.788 [45.42]</td>
<td>1.708 [43.38] A B C D E</td>
</tr>
<tr>
<td>34</td>
<td>1.988 [50.50]</td>
<td>1.908 [48.46] A B C D E</td>
</tr>
<tr>
<td>40</td>
<td>2.288 [58.12]</td>
<td>2.208 [56.08] A B C D E</td>
</tr>
<tr>
<td>50</td>
<td>2.788 [70.82]</td>
<td>2.708 [68.78] A B C D E</td>
</tr>
<tr>
<td>60</td>
<td>3.288 [83.52]</td>
<td>3.208 [81.48] A B C D E</td>
</tr>
<tr>
<td>64</td>
<td>3.488 [88.60]</td>
<td>3.408 [86.56] A B C D E</td>
</tr>
</tbody>
</table>

### Notes:
1. Notches “A” and “C” will accommodate 3M Polarizing Keys 3518.
2. The recommended PCB hole size for the kinked tail positions on the .112” solder tail connector is .035” ± .002.

Refer to TS-0972 for the position kinked.

### Recommended Mounting Hole Pattern

- **Position 1**
  - Orientation Triangle
  - Notch A (See Table 1 & Note 1)
  - Notch B (See Table 1)
  - Notch C (See Table 1 & Note 1)

### Right Angle

- Max Dim to Edge of PCB for Bussing: .250 [6.35]
- Min End Stackable Distance: .250 [6.35]
- Bend Pad: .25 [6.4]

### Section J–J

- Position 1
- Orientation Triangle
- Notch A
- Notch B
- Notch C
- Notch D
- Notch E

### Ordering Information

- Blank = Standard
- N = High Temperature
- Pin Quantity: (See Table 1)

**X25XX-50XXXX**

- Tail
  - 02 = Solder Tails for .062 [1.57] Thick Board.
  - K2 = Kinked Solder Tails for .062 [1.57] Thick Board.
  - 03 = Solder Tails for .094 to .125 [2.39 to 3.18] Thick Board.
  - 05 = Wrap Tails for up to 3 Levels of Wire Wrap.

**Mating Plating Thickness:**
- Solder Tail Versions
  - UG = 15 µ" [0.38 µm]
  - UB = 30 µ" [0.76 µm]
- Wrap Tail Versions
  - EB = 30 µ" [0.76 µm]

**TS-0770-10**

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