

3M™ 4-Wall Header

.100" × .100" Low Profile, SMT Straight, Straight and Right Angle Thru Hole 2500 Series



- Low profile, space saving design
- Center slot polarization prevents mis-insertions and reduces insertion time
- Dual slot polarization means broader compatibility with competitive polarization designs (not 10 pos.)
- Optional retainer clip for locking sockets in place and increasing connection reliability in vibration-prone environments
- Optional High temperature insulator suitable for "no lead" soldering operations
- High temperature option in thru hole version suitable for "paste in hole" reflow soldering techniques
- Exposed solder tails (on right angle version) provide ease of cleaning and reduced repair costs
- RoHS* compliant version (RB Plating Suffix) available
- Straight surface mount version available

Date Modified: August 1, 2006

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Physical

Insulator

Material: Glass Filled Polyester (PBT), Glass Filled Polyester (PCT) - High temperature option
Flammability: UL 94V-0
Color: Gray (PBT), Beige (PCT) or Black (PCT) - RoHS compliant
Contact Material: Copper Alloy

Plating

Underplating: 100 μ" [2.54 μm] Nickel - Overall
Wiping Area: Gold (See Ordering Information)
Solder Tails: 200 μ" [5.08 μm] Tin Lead or Matte Tin (See Ordering Information)
Terminal Finish Indicator: e3 (For RB Plating Suffix) (per JESD97)

Marking: 3M Logo, Part Identification Number and Orientation Triangle

Electrical

Current Rating: 2 A
Insulation Resistance: $>1 \times 10^9 \Omega$ at 500 Vdc
Withstanding Voltage: 1000 Vrms at Sea Level

Environmental

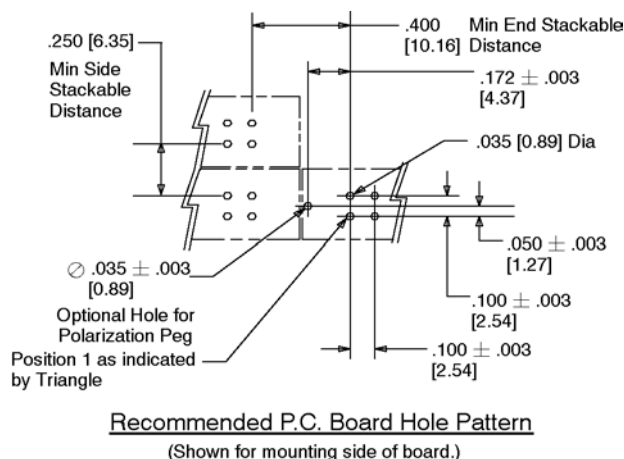
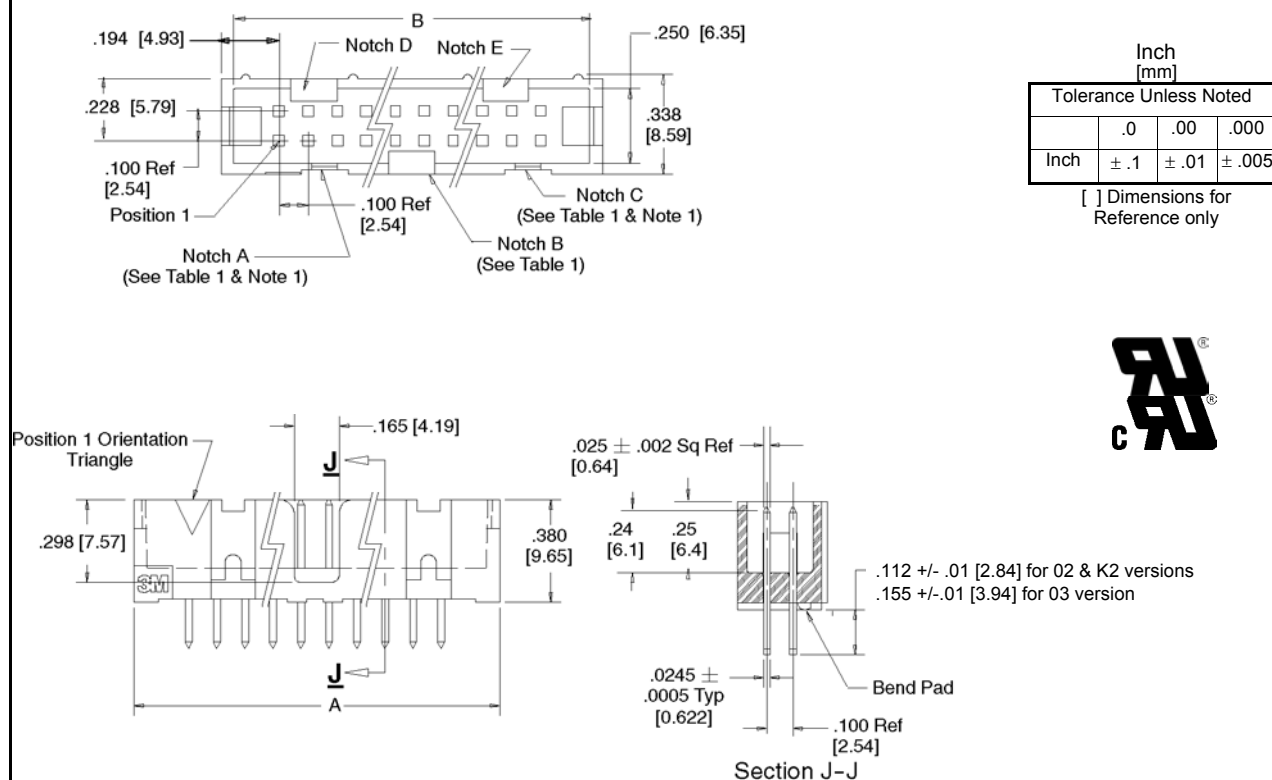
Temperature Rating: -55°C to +105°C
Process Rating: 260°C, (High Temp & RoHS Compliant versions only), single pass, (profile per J-STD-020C)
Moisture Sensitivity Level: 1 (per J-STD-020C)

*RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
"RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

UL File No.: E68080

.100" × .100" Low Profile, Straight Thru Hole

2500 Series



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

Pin Qty	Dimensions		Polarizing Notches
	A	B	
10	.788 [20.02]	.708 [17.98]	BC
14	.988 [25.10]	.908 [22.06]	B C D E
16	1.088 [27.64]	1.008 [25.60]	A B C D E
20	1.288 [32.72]	1.208 [30.68]	A B C D E
24	1.488 [37.80]	1.408 [35.76]	A B C D E
26	1.588 [40.34]	1.508 [38.30]	A B C D E
30	1.788 [45.42]	1.708 [43.38]	A B C D E
34	1.988 [50.50]	1.908 [48.46]	A B C D E
40	2.288 [58.12]	2.208 [56.08]	A B C D E
50	2.788 [70.82]	2.708 [68.78]	A B C D E
60	3.288 [83.52]	3.208 [81.48]	A B C D E
64	3.488 [88.60]	3.408 [86.56]	A B C D E

Notes:

1. Notches A & C will accommodate 3M Polarizing Keys (3M Part #3518 or N3518).
2. Contact tails .0245 [0.622] wire with .0075 [0.191] corner radii & .028 [0.72] diagonal.
3. See page 4 for kink tail positions.
4. Solder stand offs facilitate .01 clearance above board for reflow soldering.

Ordering Information

Prefix:

Blank = Std. Temp. Gray (PBT) / Not RoHS*

Compliant

N = High Temp. Beige (PCT) / Not RoHS*

Compliant

N = High Temp. Black (PCT) / RoHS*

Compliant (RB Plating Req'd)

X25XX-60XX-XX

Pin Quantity: _____
(See Table 1)

Plating:

UG = 15 μ " [0.38 μ m] Gold with Tin-Lead Tails

UB = 30μ" [0.76μm] Gold with Tin- Lead Tails

RB = 30 μ " [0.76 μ m] Gold with Matte Tin Tails

– (RoHS* Compliant)

–Solder Tail

02 = for .062 [1.57] thick board

03 = for .094 to .125 [2.39 to 3.18] thick board

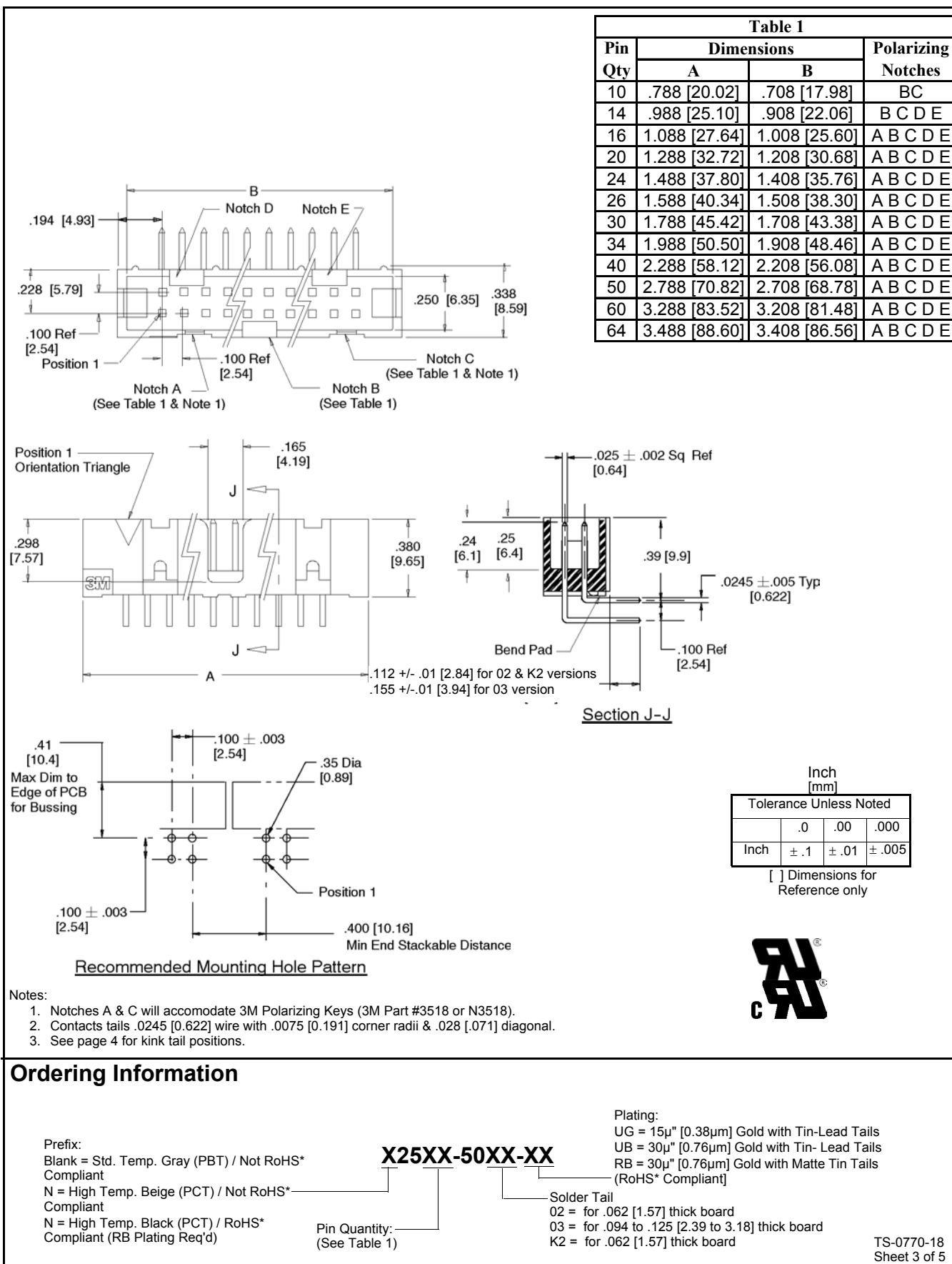
K2 = for .062 [1.57] thick board

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3M™ 4-Wall Header

.100" × .100" Low Profile, Right Angle Thru Hole

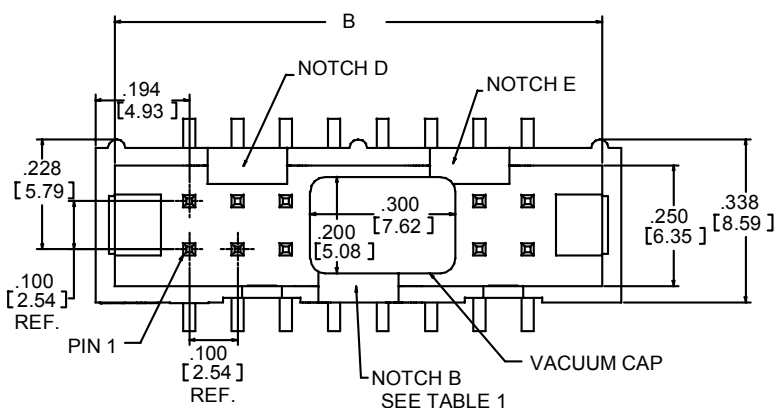
2500 Series



3M™ 4-Wall Header

.100" × .100" Low Profile, SMT Straight

2500 Series



Inch	mm
Tolerance Unless Noted	
.0	.00
.00	.000
Inch	± .1 ± .01 ± .005

[] Dimensions for Reference only

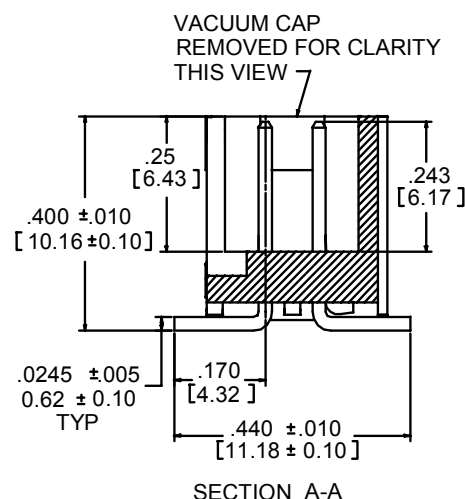
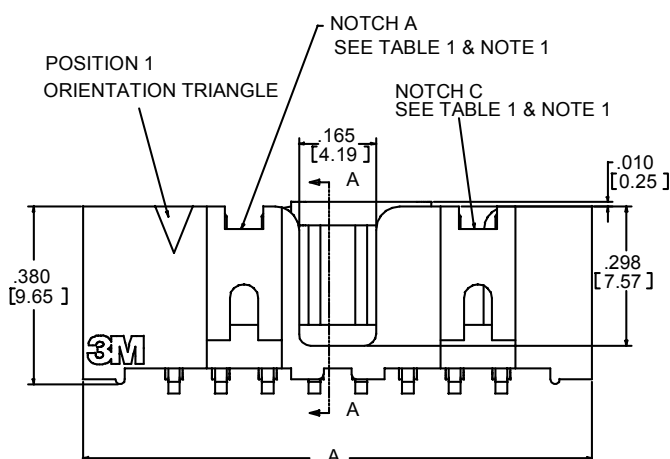


Table 1

Pin Qty	Dimensions		Polarizing Notches	Tape & Reel Pkg Code
	A	B		
10	.788 [20.02]	.708 [17.98]	BC	WD (44 mm)
14	.988 [25.10]	.908 [22.06]	B C D E	WD (44 mm)
16	1.088 [27.64]	1.008 [25.60]	A B C D E	WE (56 mm)
20	1.288 [32.72]	1.208 [30.68]	A B C D E	WE (56 mm)
24	1.488 [37.80]	1.408 [35.76]	A B C D E	WE (56 mm)
26	1.588 [40.34]	1.508 [38.30]	A B C D E	WF (72 mm)
30	1.788 [45.42]	1.708 [43.38]	A B C D E	WF (72 mm)
34	1.988 [50.50]	1.908 [48.46]	A B C D E	WF (72 mm)
40	2.288 [58.12]	2.208 [56.08]	A B C D E	WH (120 mm)
50	2.788 [70.82]	2.708 [68.78]	A B C D E	WG (88 mm)
60	3.288 [83.52]	3.208 [81.48]	A B C D E	WH (120 mm)
64	3.488 [88.60]	3.408 [86.56]	A B C D E	WH (120 mm)

Notes:

- Notches A & C will accommodate 3M polarizing key N3518.
- Vacuum cap will be centered on connectors with odd # of pins/row. It will be offset away from Pin 1 on connectors having an even # of pins per row (shown).
- Coplanarity .004 for less than 30 position, .006 for 30 and above.

Ordering Information

X25XX-6V0C-RB -XX

Prefix:
N = High Temp Black (PCT) RoHS* Compliant (RB Plating Req'd)

Pin Quantity:
(See Table)

Packaging Options:
WX = tape & reel packaging (see table 1)

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Interconnect Solutions

<http://www.3M.com/interconnects/>

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3M™ 4-Wall Header

.100" × .100" Low Profile, Accessories

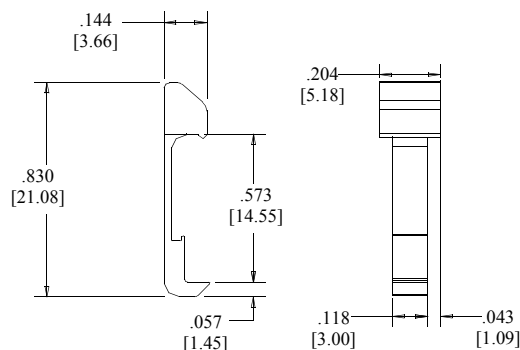
2500 Series

2500 & 3000 Series Shrouded Header					
Total Number of Pins	Number of Tails Kinked	Positions Kinked			
		3	4	7	8
10	4	3	4	7	8
14	4	3	4	11	12
16	4	3	4	13	14
20	4	3	4	17	18
24	4	3	4	21	22
26	4	3	4	23	24
30	4	5	6	25	26
34	4	7	8	27	28
36	4	7	8	27	28
40	4	7	8	33	34
50	4	7	8	43	44
60	4	11	12	49	50
64	4	11	12	53	54

Kinked Tail Detail:

Kink is located .05" below bottom surface of plastic.
External radius of kink toward part centerline.

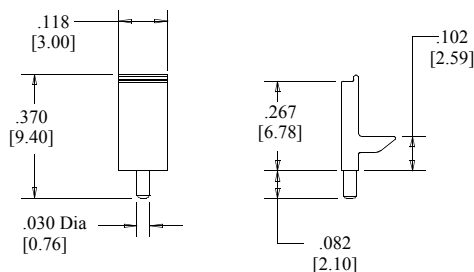
Part Number	Material	Color
3505-33B	Nylon	Black
3201-1	PBT	Gray



Long Snap In Latch

Note: Latches not compatible with reflow soldering. For reflow soldering, attach latches after soldering.

Part Number	Material	Color
3201-3	PCT	Black
3201-1	PBT	Gray



Polarizing Post

Connector Pin Qty	Dimension A
10	.81 [20.6]
14	1.02 [25.9]
16	1.12 [28.4]
20	1.32 [33.5]
24	1.52 [38.7]
26	1.63 [41.4]
30	1.83 [46.4]
34	2.03 [51.6]
40	2.33 [59.2]
50	2.83 [71.9]
60	3.33 [84.6]
64	3.53 [89.7]

3505-8XXX

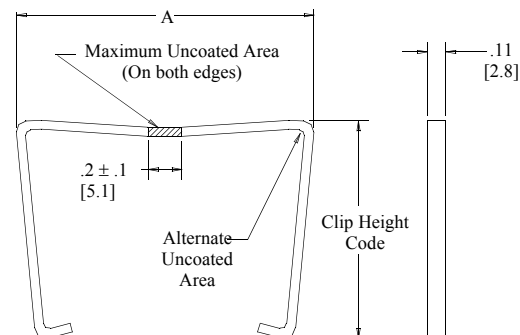
Connector Pin Count:
(See Table)

Clip Height Code

0 = .31 [7.9] for Sockets W/O

Strain Relief

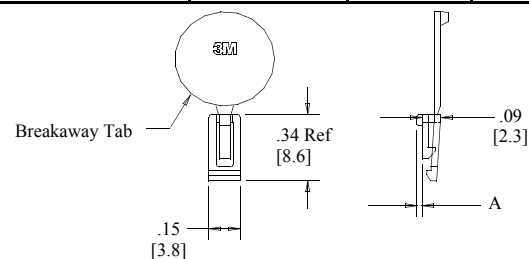
1 = .53 [13.5] for Sockets with Strain Relief



Short/Long Socket Retainer Clip

Note: Stainless steel with gray polyurethane coating.

Part Number	Material	Color	Dim A
N3518	LCP	Black	0.02
3518	PBT	Gray	0.02



Note: #2216 B/A Scotchweld can be used to adhere keys.

Polarizing Keys

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Interconnect Solutions

<http://www.3M.com/interconnects/>

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