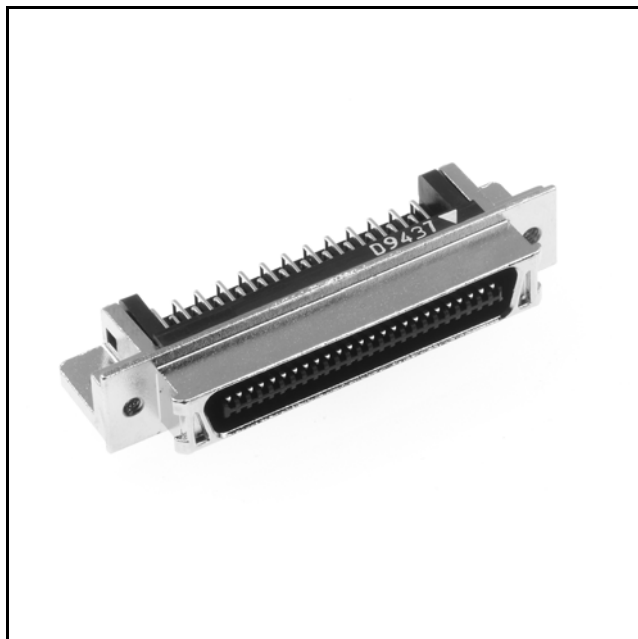


3M™ Pak 50 I/O Plug

.050" Straight and Right Angle, Boardmount

P50 Series



- EMI shielded
- 20 to 100 position
- Mates to P50 Series cable mount socket
- RoHS* compliant

Date Modified: October 2, 2006

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Sheet 1 of 7

Physical

Insulation

Material: Glass Filled Nylon
Flammability: UL 94V-0
Color: Black

Contact

Material: Phosphor Bronze

Plating

Underplating: Nickel
Wiping Area: 10 μ" [0.25 μm] Gold
Solder Tails: Gold Flash

Electrical

Current Rating: 0.5 A
Insulation Resistance: 10³ MΩ min. at 500 VDC
Withstanding Voltage: 650 VAC for 1 minute

Environmental

Temperature Rating: -55°C to +85°C
Process Rating: 260°C (per J-STD-020C)

*"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 in writing by 3M, this information represents 3M's knowledge and belief based on information provided by third party suppliers to 3M.

3M™ Pak 50 I/O Plug

.050" Straight and Right Angle, Boardmount

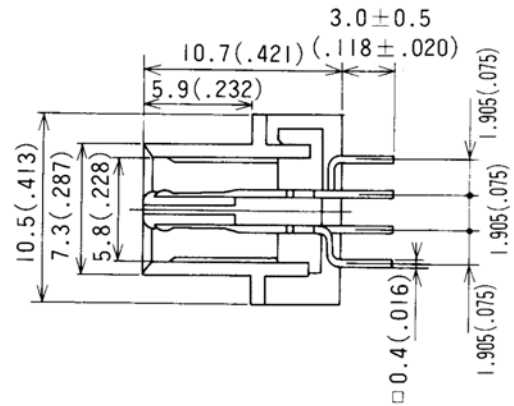
P50 Series

Straight Plug

Product Table / Dimensions

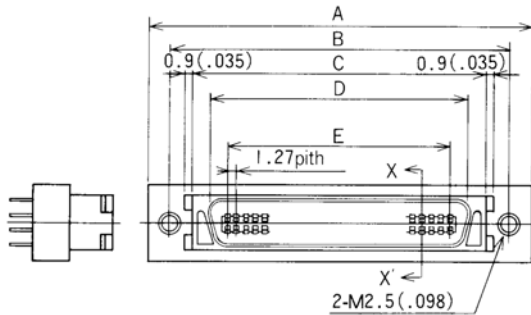
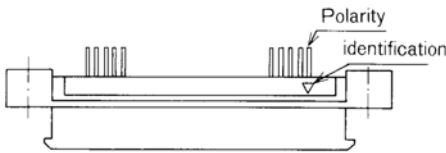
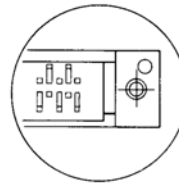
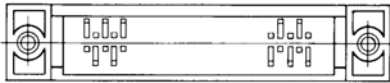
Contact Quantity	A	B	C	D	E
20	33.40 [1.315]	27.40 [1.079]	21.60 [0.850]	16.73 [0.659]	11.43 [0.450]
28	38.48 [1.515]	32.48 [1.279]	26.68 [1.050]	21.81 [0.859]	16.51 [0.650]
34	42.29 [1.665]	36.29 [1.429]	30.49 [1.200]	25.62 [1.009]	20.32 [0.800]
50	52.45 [2.065]	46.45 [1.829]	40.65 [1.600]	35.78 [1.409]	30.48 [1.200]
60	58.80 [2.315]	52.80 [2.079]	47.00 [1.850]	42.13 [1.659]	36.83 [1.450]
68	63.88 [2.515]	57.88 [2.279]	52.08 [2.050]	47.21 [1.859]	41.91 [1.650]
80	71.50 [2.815]	65.50 [2.579]	59.70 [2.350]	54.83 [2.159]	49.53 [1.950]

X-X' Cross Section



20, 50 pins

28, 34, 60, 80 pins



Ordering Information

P50 - XXX - DDP - XXX - EA

Contact Quantity
See Table

S1 = Straight
SR1 = Right Angle

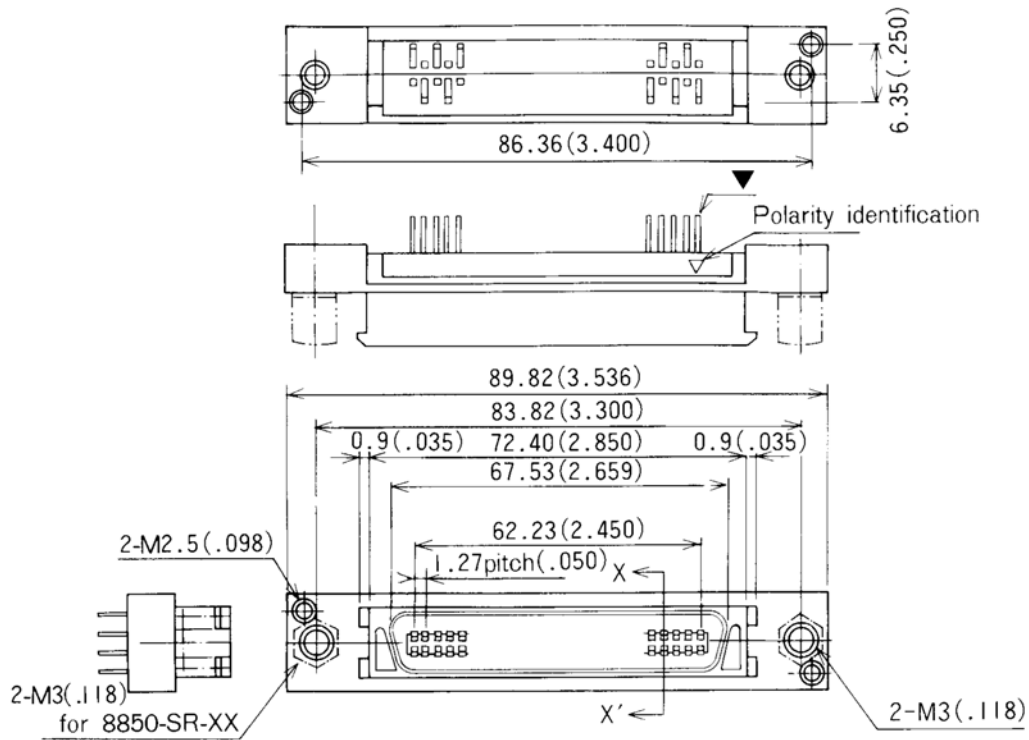
TS-1147-02
Sheet 2 of 7

3M™ Pak 50 I/O Plug

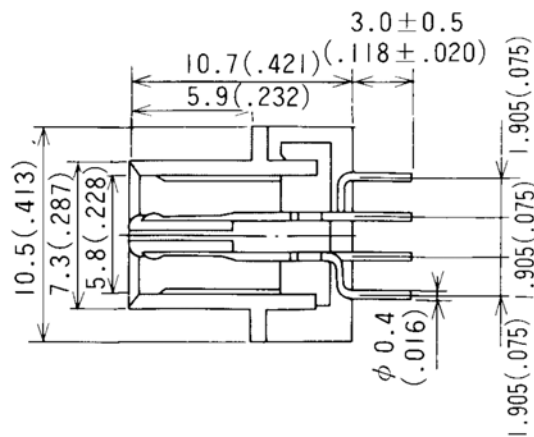
.050" Straight and Right Angle, Boardmount

P50 Series

Straight Plug, 100 Pins



X-X' Cross Section



TS-1147-02
Sheet 3 of 7

3M™ Pak 50 I/O Plug

.050" Straight and Right Angle, Boardmount

P50 Series

Straight Plug

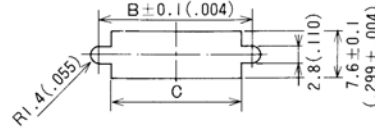
Product Table / Dimensions

Contact Quantity	A	B	C
20	11.43	27.40	24.40
	[0.450]	[1.079]	[0.961]
28	16.51	32.48	29.48
	[0.650]	[1.279]	[1.161]
34	20.32	36.29	33.29
	[0.800]	[1.429]	[1.311]
50	30.48	46.45	43.45
	[1.200]	[1.829]	[1.711]
60	36.83	52.80	49.80
	[1.450]	[2.079]	[1.961]
68	41.91	57.88	54.88
	[1.650]	[2.279]	[2.161]
80	49.53	65.50	62.50
	[1.950]	[2.579]	[2.461]

Panel Cutout Dimensions

20, 28, 34, 50, 60, 68, 80 pins

Recommended panel thickness : 2.0max(.079)

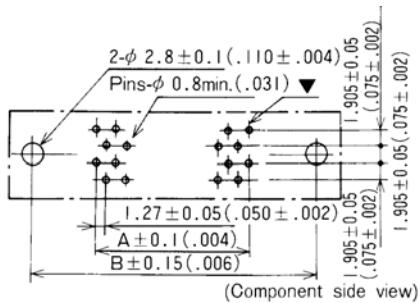


Recommended PCB Thickness: 1.6 ± 0.19 mm [0.063 ± .007]

Printed Circuit Board Layout

Recommended PCB Thickness: 1.6 ± 0.19 mm [0.063 ± .007]

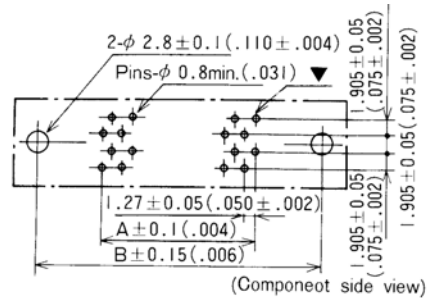
34, 50 Pins



Printed Circuit Board Layout

Recommended PCB Thickness: 1.6 ± 0.19 mm [0.063 ± .007]

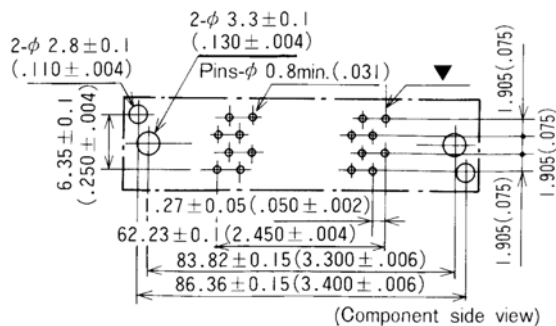
20, 28, 60, 68, 80 Pins



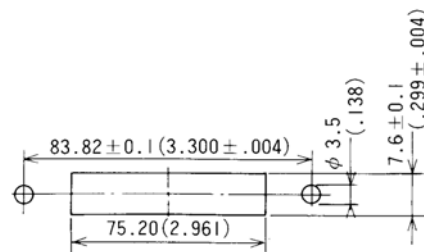
Panel Cutout Dimensions

Recommended Panel Thickness: 1.6 mm max. [0.063]

100 Pins



100 Pins



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Sheet 4 of 7

3M™ Pak 50 I/O Plug

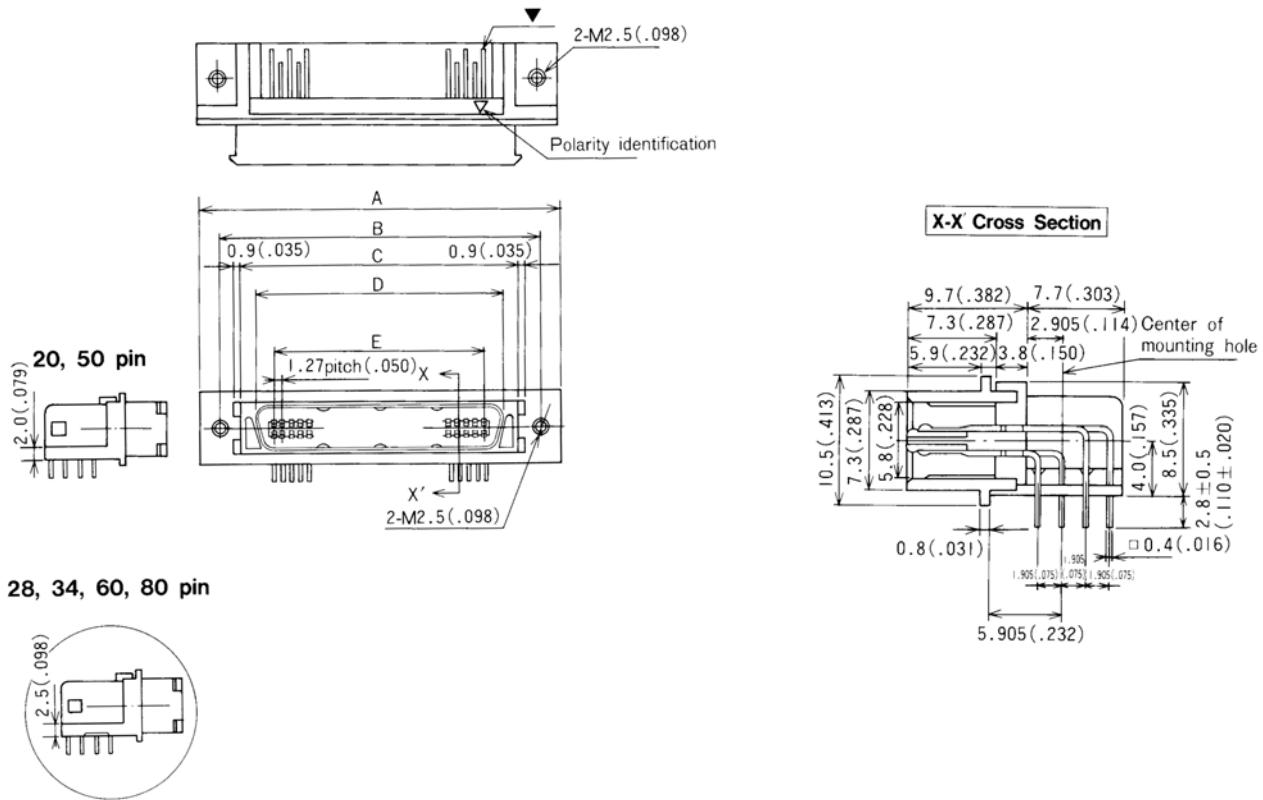
.050" Straight and Right Angle, Boardmount

P50 Series

Right Angle Plug

Product Table / Dimensions

Contact Quantity	A	B	C	D	E
20	33.40	27.40	21.60	16.73	11.43
	[1.315]	[1.079]	[0.850]	[0.659]	[0.450]
28	38.48	32.48	26.68	21.81	16.51
	[1.515]	[1.279]	[1.050]	[0.859]	[0.650]
34	42.29	36.29	30.49	25.62	20.32
	[1.665]	[1.429]	[1.200]	[1.009]	[0.800]
50	52.45	46.45	40.65	35.78	30.48
	[2.065]	[1.829]	[1.600]	[1.409]	[1.200]
60	58.80	52.80	47.00	42.13	36.83
	[2.315]	[2.079]	[1.850]	[1.659]	[1.450]
68	63.88	57.88	52.08	47.21	41.91
	[2.515]	[2.279]	[2.050]	[1.859]	[1.650]
80	71.50	65.50	59.70	54.83	49.53
	[2.815]	[2.579]	[2.350]	[2.159]	[1.950]



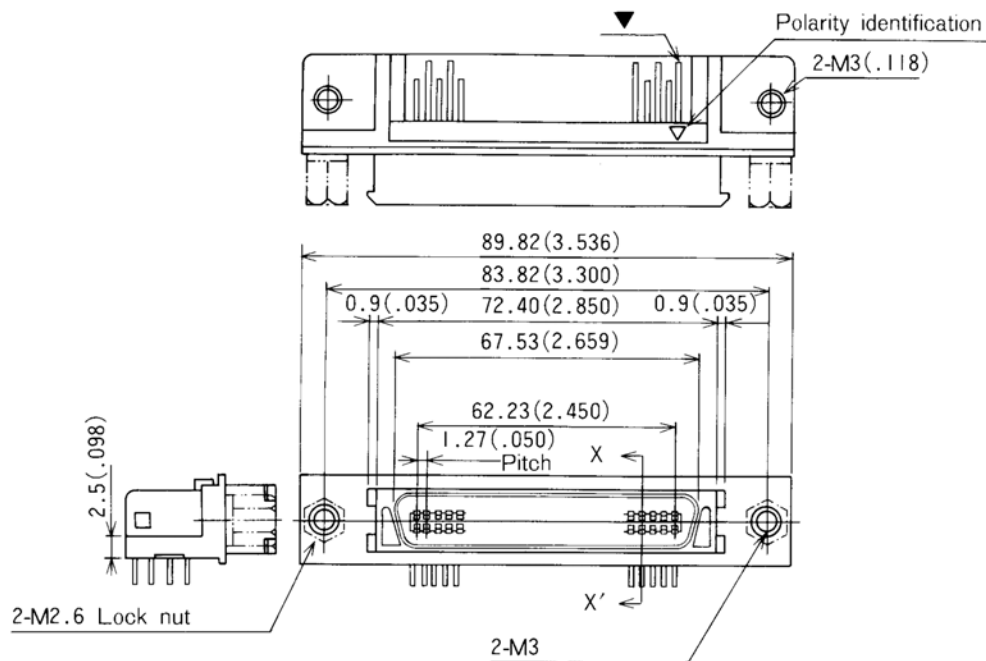
TS-1147-02
Sheet 5 of 7

3M™ Pak 50 I/O Plug

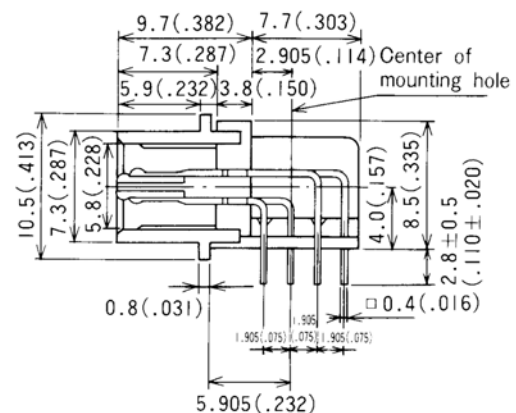
.050" Straight and Right Angle, Boardmount

P50 Series

Right Angle Plug, 100 Pins



X-X Cross Section



TS-1147-02
Sheet 6 of 7

3M™ Pak 50 I/O Plug

.050" Straight and Right Angle, Boardmount

P50 Series

Right Angle

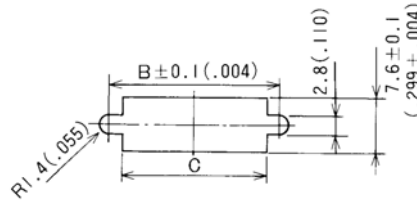
Product Table / Dimensions

Contact Quantity	A	B	C
20	11.43	27.40	24.40
	[0.450]	[1.079]	[0.961]
28	16.51	32.48	29.48
	[0.650]	[1.279]	[1.161]
34	20.32	36.29	33.29
	[0.800]	[1.429]	[1.311]
50	30.48	46.45	43.45
	[1.200]	[1.829]	[1.711]
60	36.83	52.80	49.80
	[1.450]	[2.079]	[1.961]
68	41.91	57.88	54.88
	[1.650]	[2.279]	[2.161]
80	49.53	65.50	62.50
	[1.950]	[2.579]	[2.461]

Panel Cutout Dimensions

Recommended Panel Thickness: 2.0 mm [0.079]

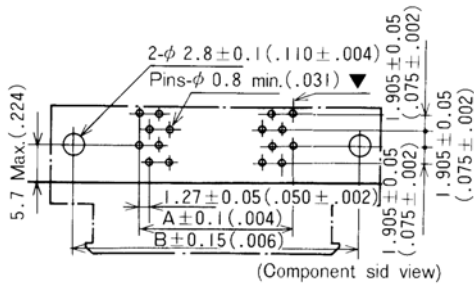
20, 28, 34, 50, 60, 68, 80 Pins



Printed Circuit Board Layout

Recommended PCB Thickness: 1.6 \$ 0.19 mm [0.063 \$.007]

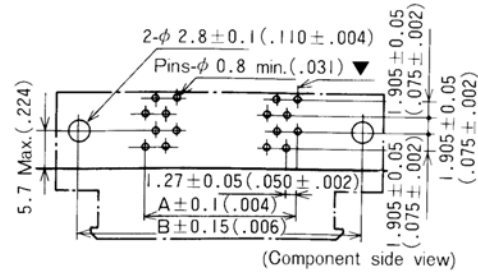
34, 50 Pins



Printed Circuit Board Layout

Recommended PCB Thickness: 1.6 \$ 0.19 mm [0.063 \$.007]

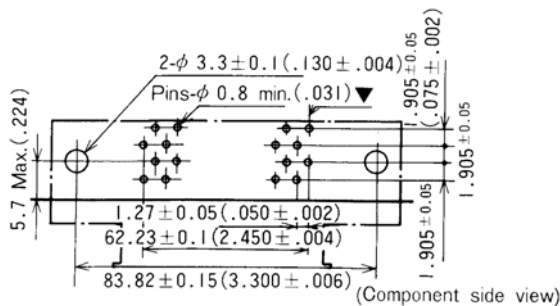
20, 28, 60, 68, 80 Pins



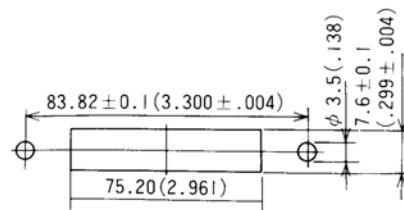
Panel Cutout Dimensions

Recommended Panel Thickness: 1.6 mm max. [0.063]

100 Pins



100 Pins



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Sheet 7 of 7

Important Notice

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