

# FCN-234P/235P\*\*\*-G/0, G/\*, -234J/235J\*\*\*-G/0, G/\*, FCN-230 Series Pin Contact Board Plug/Socket Connectors

## 1.27 mm PITCH, PIN CONTACT BOARD PLUG/SOCKET CONNECTORS

### FEATURES

- 1.27 mm (0.05 in.) pitch contact arrangement in two rows enables high density mounting
- Terminals are spaced in a four-row zigzag array (1.27 mm (0.05 in.) x 1.905 mm (0.075 in.)) for easy PC board design
- Insulation material recognized by UL (94V-0)
- Each of the contacts on the female connector are alternately inset to facilitate two-step coupling, significantly reducing insertion force
- **S-Bus standard connector in straight 96 positions**
- **SCSI III standard connector 68 position plug/socket**

### SPECIFICATIONS

Temperature Range	-55°C to + 105°C					
Maximum Rated Current	2 A DC (PCB to PCB)					
Maximum Rated Voltage	240 VAC					
Contact Resistance	30 mΩ or max. (6 V DC, 0.1 A)					
Insulation Resistance	1000 MΩ or min. (500 V DC)					
Dielectric Withstand Voltage	750 V AC for 1 minute					
Insertion Force (kg)	PCB to PCB					
	No. of contacts	34	48	68	96	
	Force	3.0	4.0	5.5	7.0	
Withdrawal Force (kg)	PCB to PCB					
	No. of contacts	34	48	68	96	
	Force	0.68	0.96	1.36	1.92	

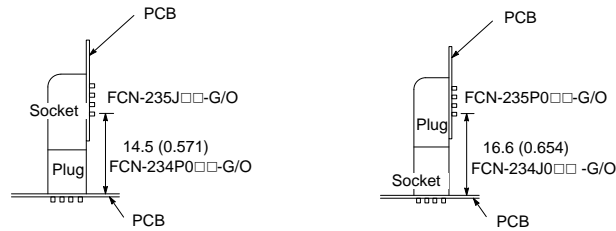
### MATERIALS

Conductor	Copper alloy
Insulator	Polyester UL94V-0 (PPS for SMT)
Contact plating	Gold over palladium over nickel (PAGOS)

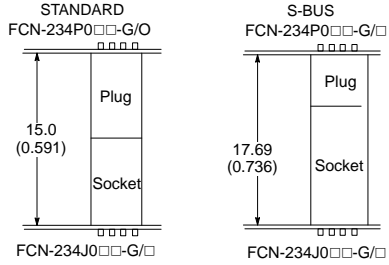


## EXAMPLES OF CONNECTOR APPLICATIONS

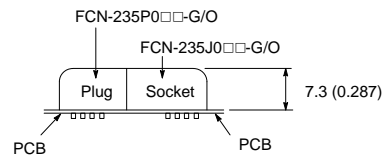
### VERTICAL PCB CONNECTION



### PARALLEL PCB CONNECTION



### HORIZONTAL PCB CONNECTION

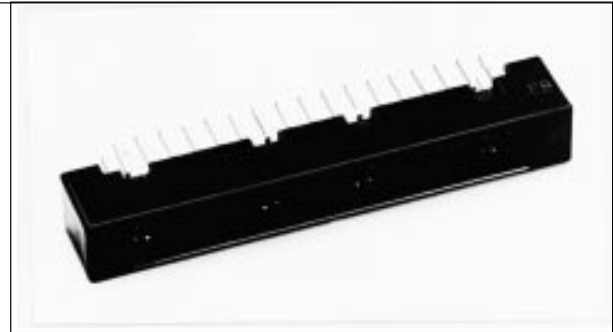
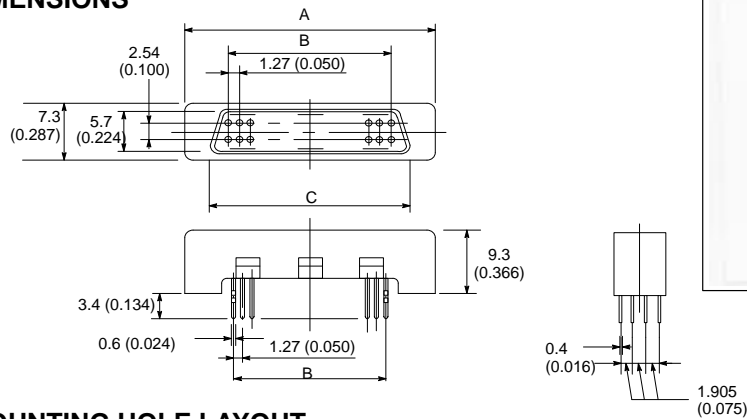


Unit: mm (in.)

2

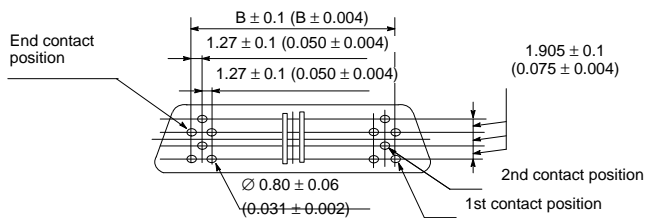
## FCN-234P\*\*\*-G/I/O STRAIGHT TYPE, BOARD PLUG

### DIMENSIONS

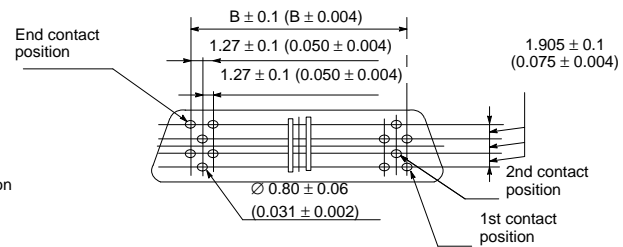


### MOUNTING HOLE LAYOUT

34 contacts



48, 68, and 96 contacts



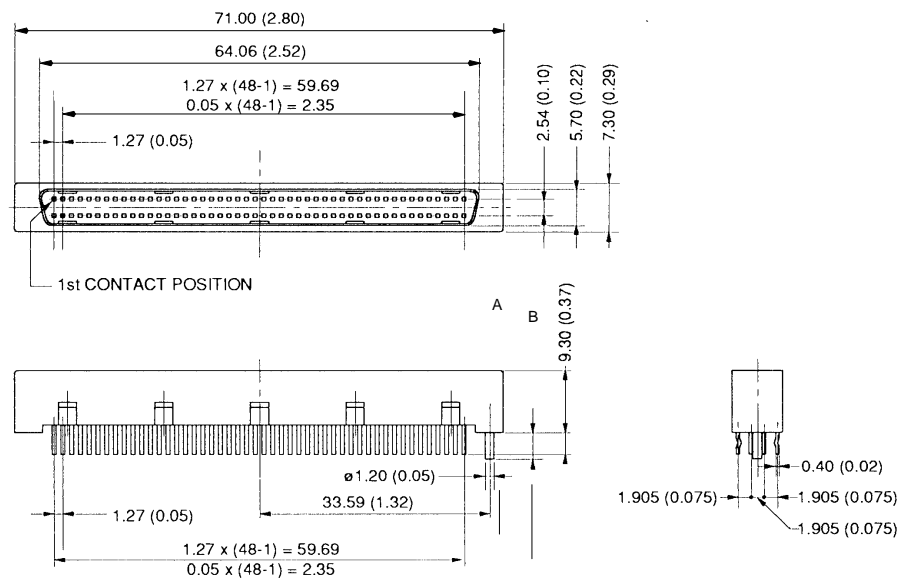
Unit: mm (in.)

### PART NUMBERS

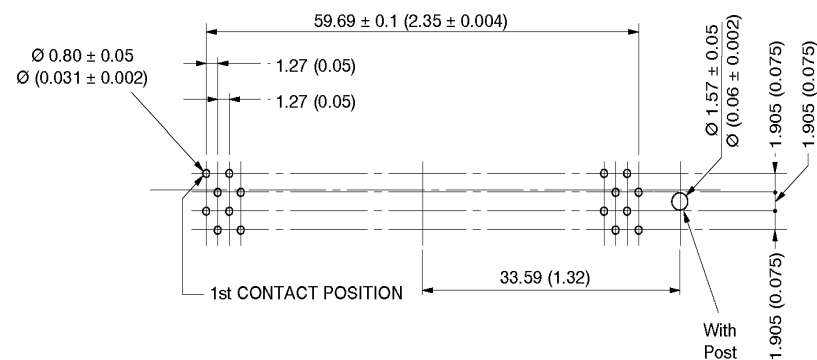
No. of Contacts	Part Number	Dimensions		
	Straight	A	B	C
34	FCN-234P034-G/I/O	31.63 (1.245)	20.32 (0.800)	24.69 (0.972)
48	FCN-234P048-G/I/O	40.52 (1.595)	29.21 (1.150)	33.58 (1.322)
68	FCN-234P068-G/I/O	53.22 (2.095)	41.91 (1.650)	46.28 (1.822)
96	FCN-234P096-G/I/O	71.00 (2.795)	59.69 (2.350)	64.06 (2.522)

FCN-234P096-G/\* STRAIGHT-TYPE PLUG — S-BUS

DIMENSIONS



MOUNTING HOLE LAYOUT



Unit: mm (in.)

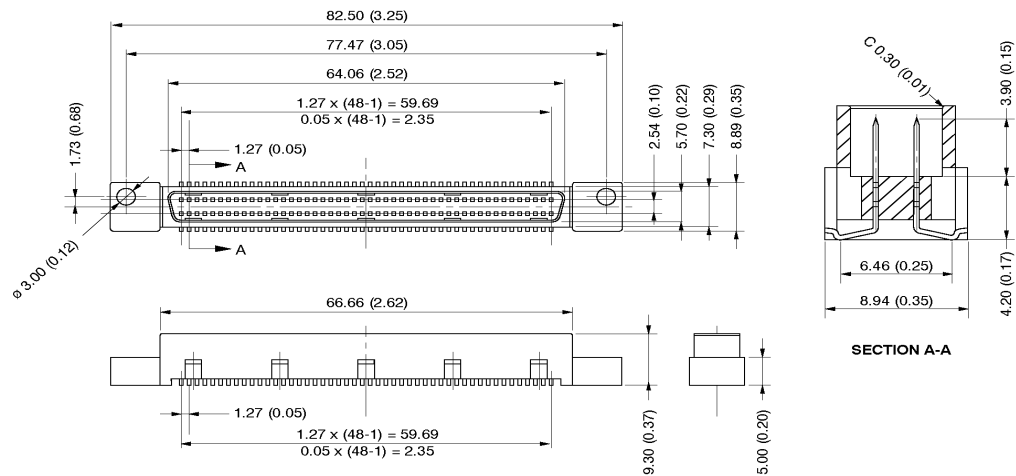
PART NUMBERS

	A Polarization Post	B Lead Length
FCN-234P096-G/0	0	3.4 (0.13)
FCN-234P096-G/XA	3.4 (0.13)	2.8 (0.11)
FCN-234P096-G/Y	4.0 (0.16)	3.4 (0.13)

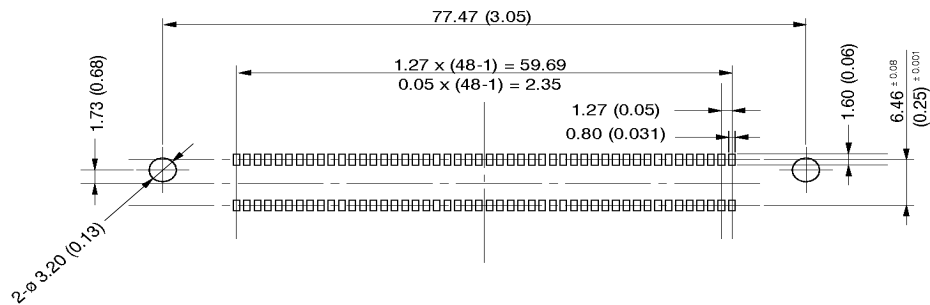


FCN-234P096-G/Z SMT PLUG

DIMENSIONS



PCB PATTERN LAYOUT



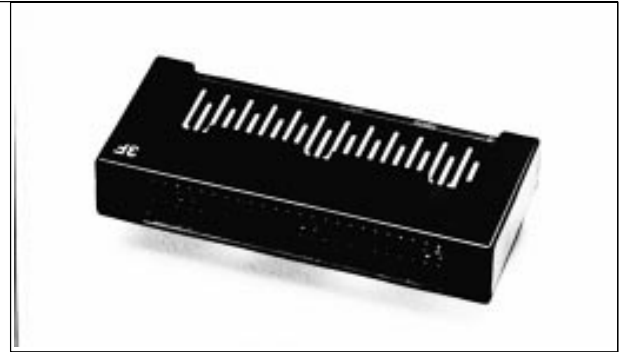
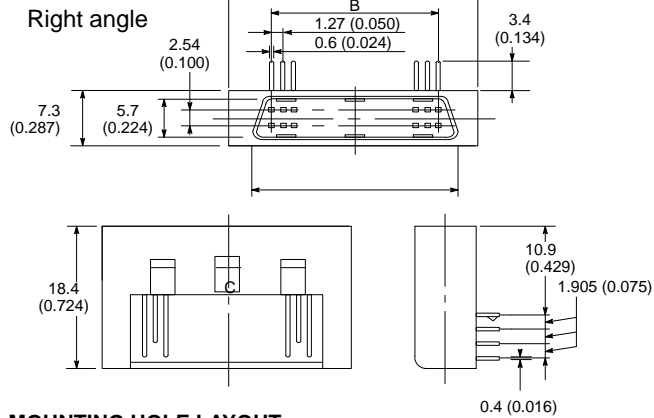
Unit: mm (in.)

PART NUMBERS

No. of Contacts	Part Number
96	FCN-234P096-G/Z

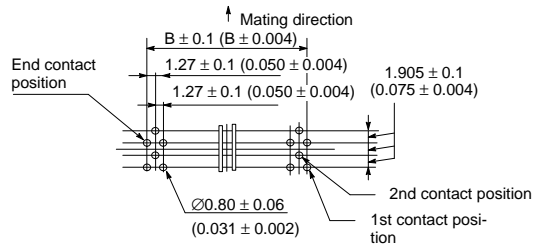
## FCN-235P\*\*\*-G/0 RIGHT-ANGLE TYPE, BOARD PLUG

### DIMENSIONS

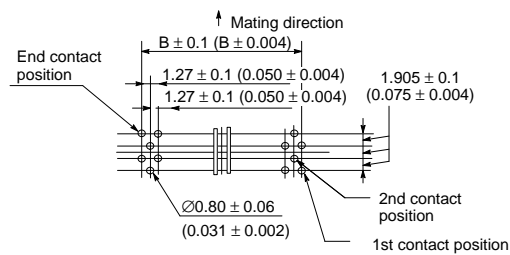


### MOUNTING HOLE LAYOUT

34 contacts



48, 68, and 96 contacts



Unit: mm (in.)

### PART NUMBERS

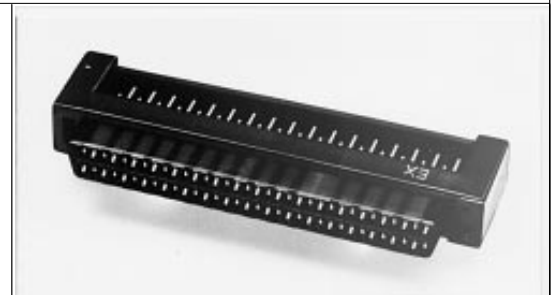
No. of Contacts	Part Number	Dimensions		
	Right Angle	A	B	C
34	FCN-235P034-G/0	31.63 (1.245)	20.32 (0.800)	24.69 (0.972)
48	FCN-235P048-G/0	40.52 (1.595)	29.21 (1.150)	33.58 (1.322)
68	FCN-235P068-G/0	53.22 (2.095)	41.91 (1.650)	46.28 (1.822)
96	FCN-235P096-G/0	71.00 (2.795)	59.69 (2.350)	64.06 (2.522)

2

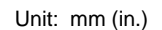
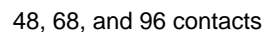
## Straight



Right angle



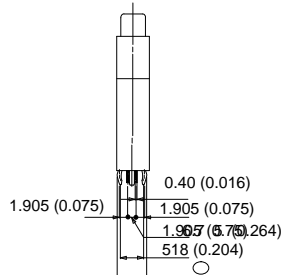
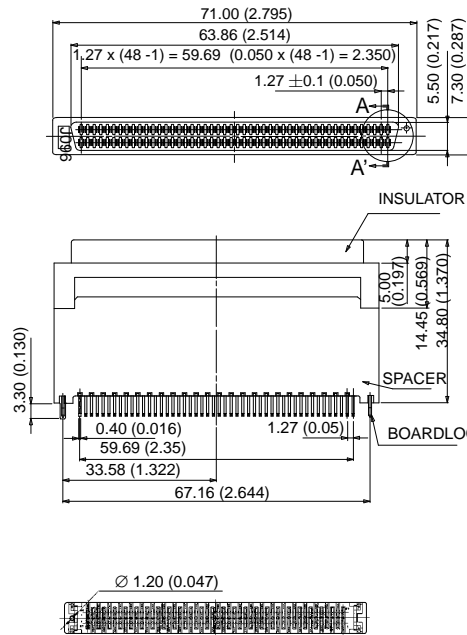
34 contacts



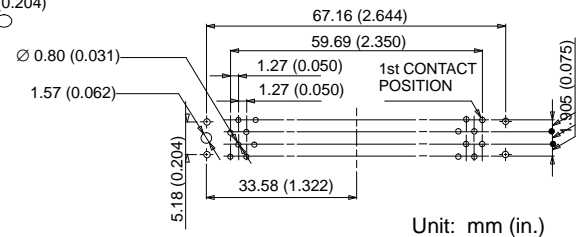
No. of Contacts	Part number		Dimensions		
	Straight	Right Angle	A	B	C
34	FCN-234J034-G/0	FCN-235J034-G/0	31.63 (1.245)	20.32 (0.800)	24.49 (0.964)
48	FCN-234J048-G/0	FCN-235J048-G/0	40.52 (1.595)	29.21 (1.150)	33.38 (1.314)
68	FCN-234J068-G/0	FCN-235J068-G/0	53.22 (2.095)	41.91 (1.650)	46.08 (1.814)
96	FCN-234J096-G/0	FCN-235J096-G/0	71.00 (2.795)	59.69 (2.350)	63.86 (2.514)

## FCN-234J096-G/U1 EXTENDED HEIGHT S-BUS SOCKET

## DIMENSIONS



## MOUNTING HOLE LAYOUT

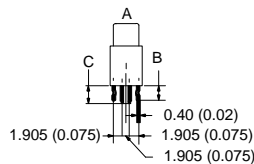
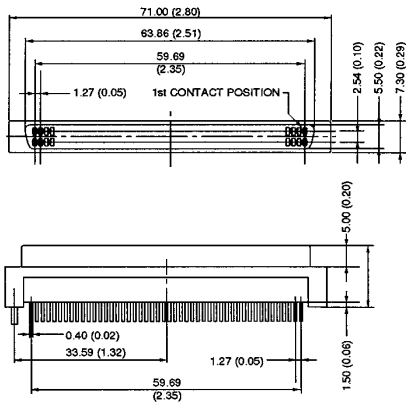


Unit: mm (in.)

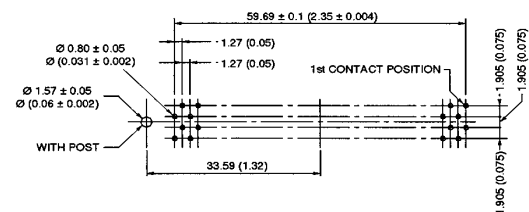
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## FCN-234J096-G/\* STRAIGHT-TYPE SOCKET — S-BUS

## DIMENSIONS



## MOUNTING HOLE LAYOUT



Unit: mm (in.)

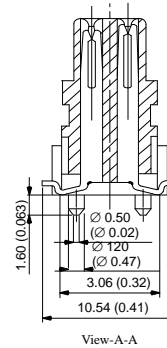
## PART NUMBERS

No. of Contacts	Part Number	A	B Lead Length	C Polarization Post	Description
96	FCN-234J096-G/O	10.7 (0.421)	3. (0.13)	—	Std.
96	FCN-234J096-G/S	10.7 (0.421)	3. (0.13)	4.0 (0.16)	Std.
96	FCN-234J096-G/Y	14.45 (0.57)	3. (0.13)	—	S-Bus
96	FCN-234J096-G/TFA	14.45 (0.57)	2.8 (0.11)	3.4 (0.13)	S-Bus
96	FCN-234J096-G/U	14.45 (0.57)	3. (0.13)	4.0 (0.16)	S-Bus
96	FCN-234J096-G/UA	14.45 (0.57)	3. (0.13)	3.4 (0.13)	S-Bus

Notes: <sup>1</sup>0.130 in. lead length.<sup>2</sup>0.110 in. lead length.



## DIMENSIONS



Technical drawing of a bridge deck cross-section. The drawing shows a rectangular cross-section with a total width of 77.47 (3.05) and a total height of 70.00 (2.76). The deck is reinforced with 4 -  $\bar{\Phi}$  1.35 ( $- \bar{\Phi}$  0.053) bars at the top and 2 -  $\bar{\Phi}$  3.20 (2 -  $\bar{\Phi}$  0.13) bars at the bottom. The reinforcement is shown as circles with dots. The drawing also shows the spacing of the reinforcement bars, with dimensions 1.27 (0.05) and 0.80 (0.031) indicated. The drawing includes a scale bar and a north arrow.

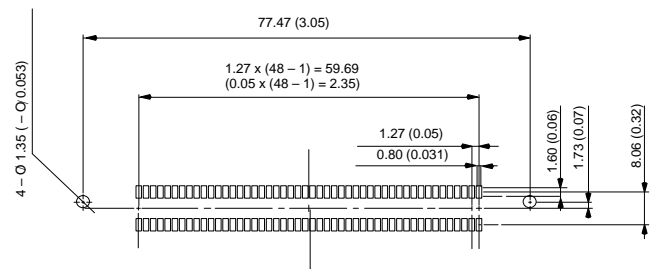
Dimensions and Reinforcement Details:

- Total Width: 77.47 (3.05)
- Total Height: 70.00 (2.76)
- Top Reinforcement: 4 -  $\bar{\Phi}$  1.35 ( $- \bar{\Phi}$  0.053)
- Bottom Reinforcement: 2 -  $\bar{\Phi}$  3.20 (2 -  $\bar{\Phi}$  0.13)
- Reinforcement Spacing: 1.27 (0.05) and 0.80 (0.031)
- Other Dimensions: 1.27 x (48 - 1) = 59.69 (0.05 x (48 - 1) = 2.35), 1.60 (0.06), 1.73 (0.07), 5.50 (0.22), 8.06 (0.32)

Unit: mm (in.)

No.of Contacts	Part Number
96	FCN-234J096-G/VA

## DIMENSIONS



No.of Contacts	Part Number
96	FCN-234J096-G/V