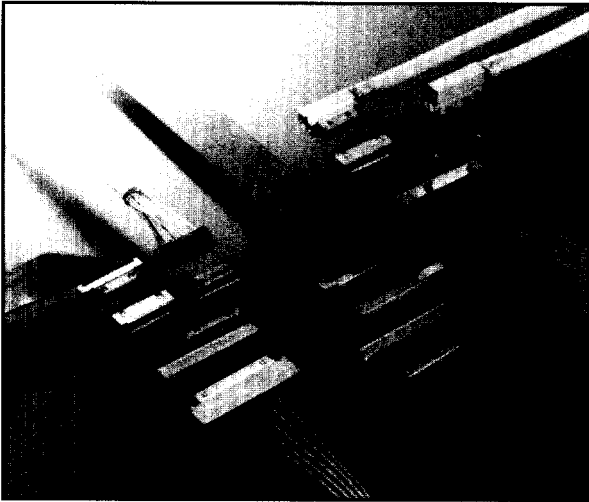


FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors



FEATURES

- Socket housing available with or without a shield
- Flex connector available
- Pin header available on embossed tape for automatic SMT mounting
- Dependable pin-type double contacts (post and box)
- Friction lock housing enables secure connections

Refer to Ordering Information for Connector Profiles.

.....

FI Series connectors are designed for board-to-cable applications. High-density 1.25mm (.049") contact spacing SMT single and double row shielded and unshielded versions available. They are used in notebook PCs, VCR's, mobile phones, and other consumer applications, where reduced space is a requirement.

GENERAL SPECIFICATIONS

Number of Contacts	Single row: 2-6, 8, 10, 15, 20, 25, 30 Double row: 5-21 (every 2 pins), 31, 41
Contact Spacing	1.25mm (.049")
Current Rating	1 Amp
Dielectric Withstanding Voltage	500 VAC r.m.s. (one minute)
Insulation Resistance	100 megohms min.
Contact Resistance	40 milliohms max.
Operating Temperature	-40°C to +80°C
Applicable Wire Size	Standard #28 to #32 AWG
Applicable FPC	.625mm (.025") Center .14mm (.006") Thick

MATERIALS AND FINISHES

• Pin Header

Description	Materials/Finishes
Insulator	Single Row: Glass-filled PPS (UL94V-0, Black) Double Row: Glass-filled LCP (UL94V-0, Beige)
Contact	Copper Alloy Connecting area: Gold 0.1 (.000004") min. over Nickel Terminal area: Tin over Nickel Plating
Shell	Copper Alloy/Tin Plating
Hold-down	Copper Alloy/Tin over Nickel

• FPC

Insulator	Glass-filled PPS (UL94V-0, Black)
Contact	Copper Alloy Connecting area: Gold 0.1 (.000004") min. over Nickel FPC area: Tin over Nickel Plating
Shell	Copper Alloy/Tin Plating
Slider	Glass-filled PPS (UL94V-0, Brown)

• Socket Housing

Housing	Glass-filled PPS (UL94V-0, Black)
Socket Contact	Phosphor Bronze/Gold over Nickel

Consult JAE for other available sizes.
Dimensions and specifications subject to change without notice.

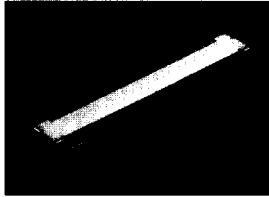
FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

SINGLE ROW

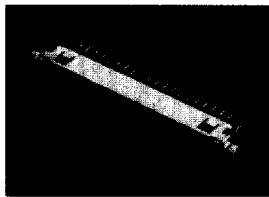
Board Side Receptacle

Right Angle
Standard Mount Shielded
FI-S***P-HF

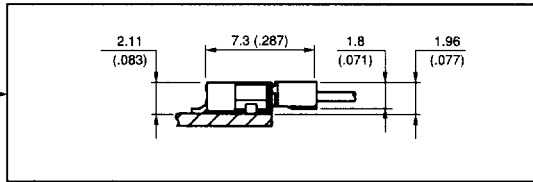


Note: Shielding only available in 20 position.

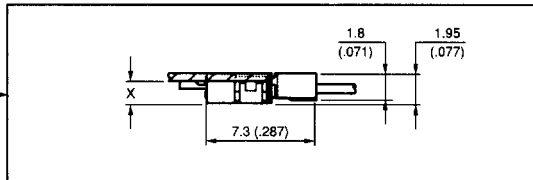
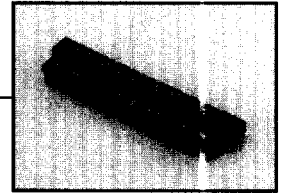
Right Angle
Reverse Mount Shielded
FI-SEB20P-HF



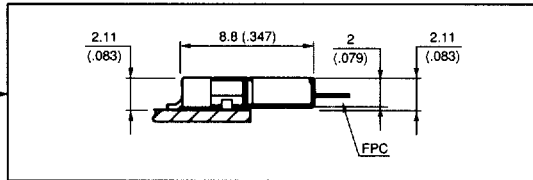
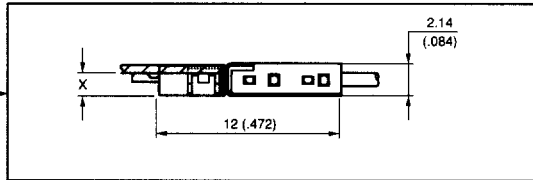
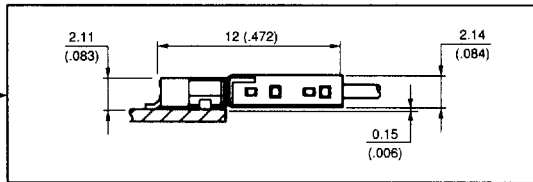
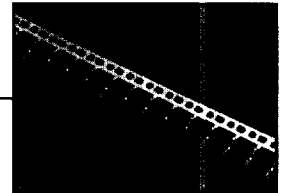
Type	Size
HF	1.48 (.058)
HF13	1.3 (.051)
HF10	1.0 (.039)



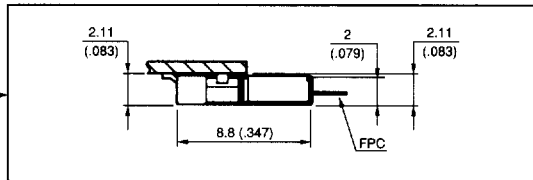
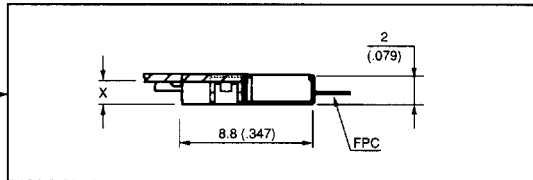
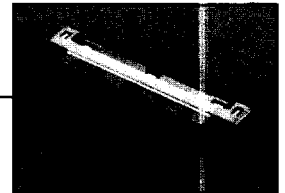
Cable Side Plug
Discrete Wire Unshielded
FI-S***S



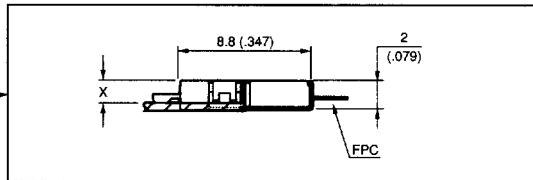
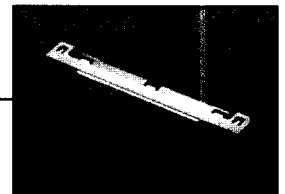
Socket Contact
FI-C3-A1-15000



Standard Shielded
FI-SE20M



FPC-Reverse
FI-SE20MR



Dimensions in mm (inches).

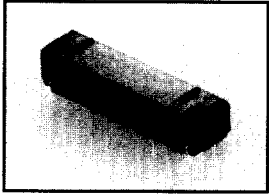
FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

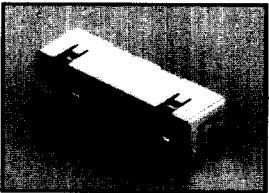
DOUBLE ROW

Board Side Receptacle

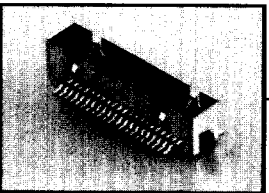
Right Angle, Unshielded
21, 31, 41 Sizes
FI-W*P-HF



Right Angle, Shielded
21, 31, 41 Sizes
FI-WE*P-HF

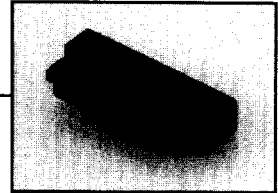


Straight, Shielded
21, 31 Sizes
FI-TWE*P*-VF

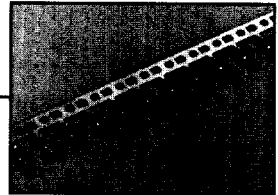


Cable Side Plug

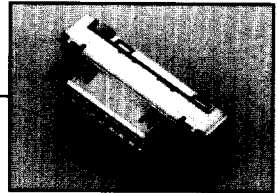
Discrete Wire, Shielded
21, 31, 41 Sizes
FI-W*S



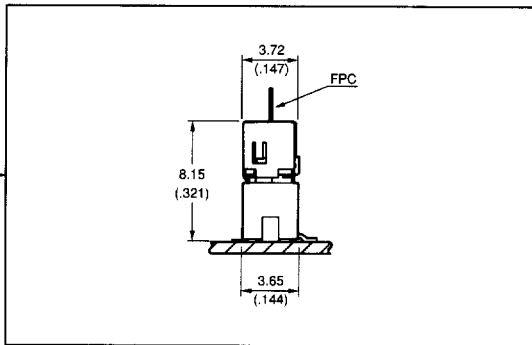
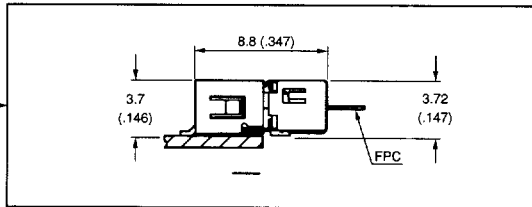
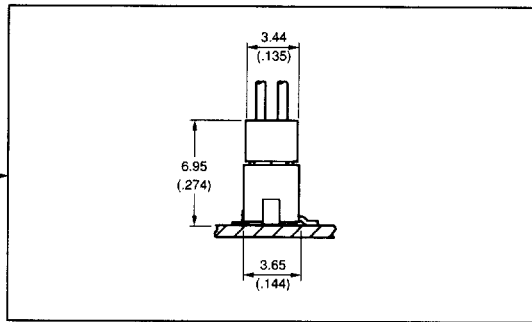
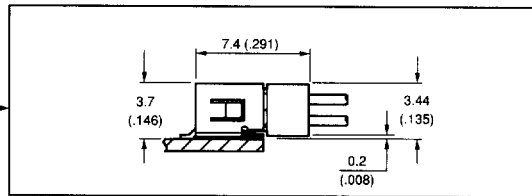
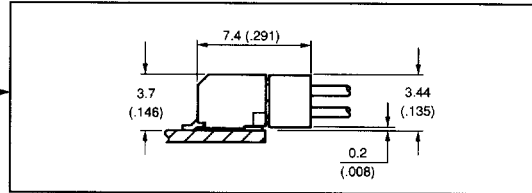
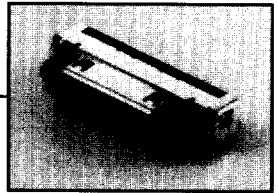
Socket Contact
FI-C3-A1-15000



FPC Right Angle, Shielded
21, 31 Sizes
FI-WE*M



FPC Straight, Shielded
21, 31 Sizes
FI-WE*MV



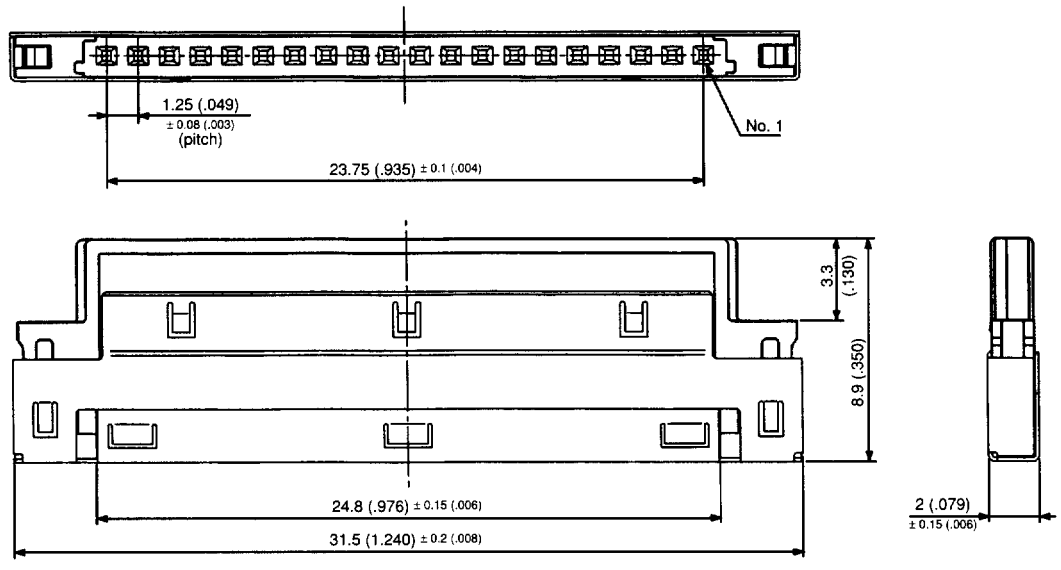
Dimensions in mm (inches).

FI SERIES CONNECTORS

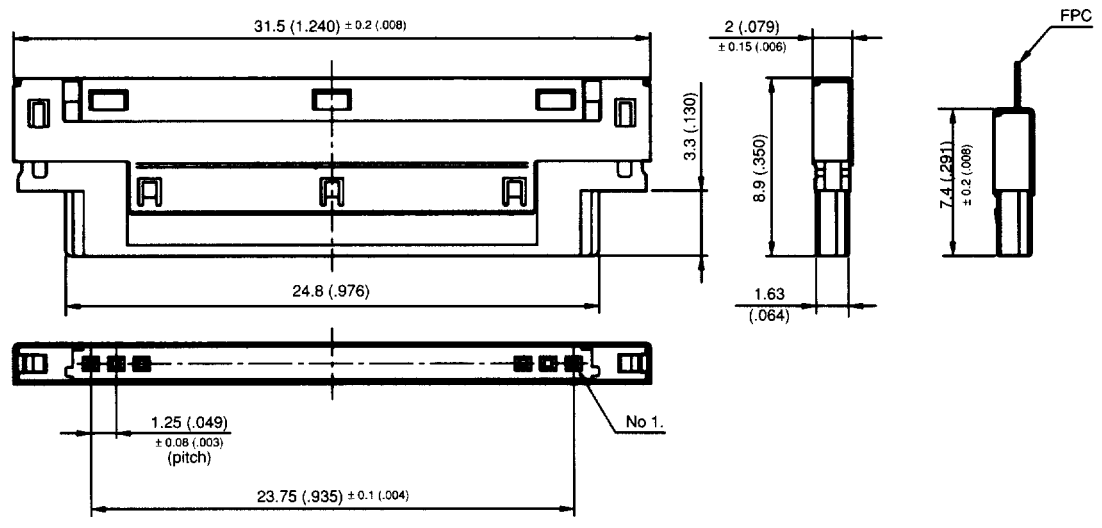
1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

Part Number: FI-SE20M

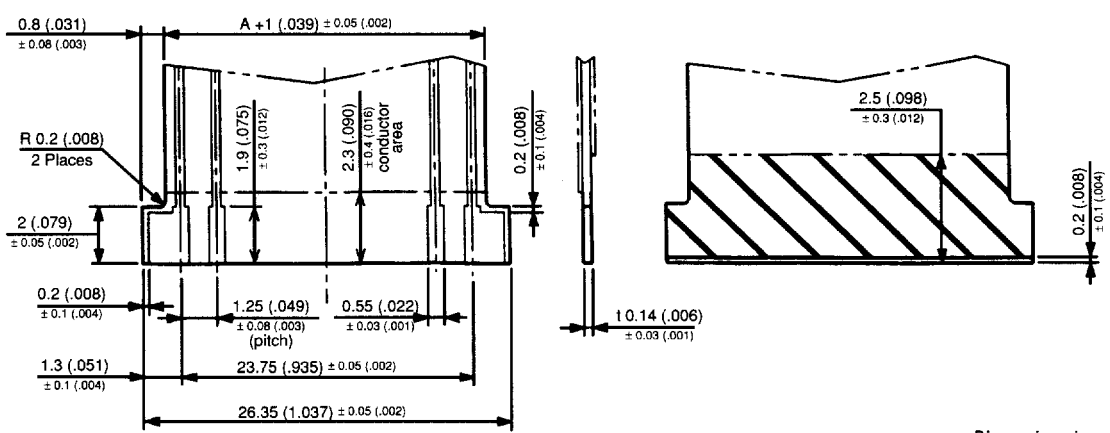
FLEX SINGLE ROW SHIELDED



Part Number: FI-SE20MR



FPC Pattern Dimension (Ref.)



Dimensions in mm (inches).

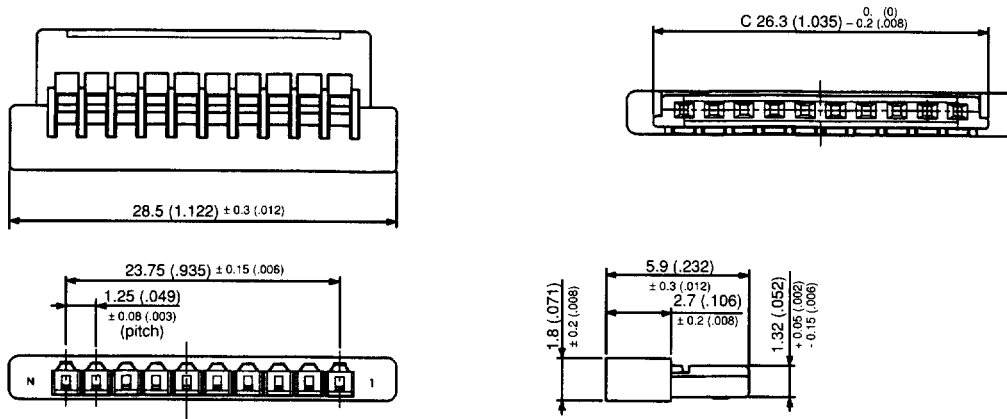


FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

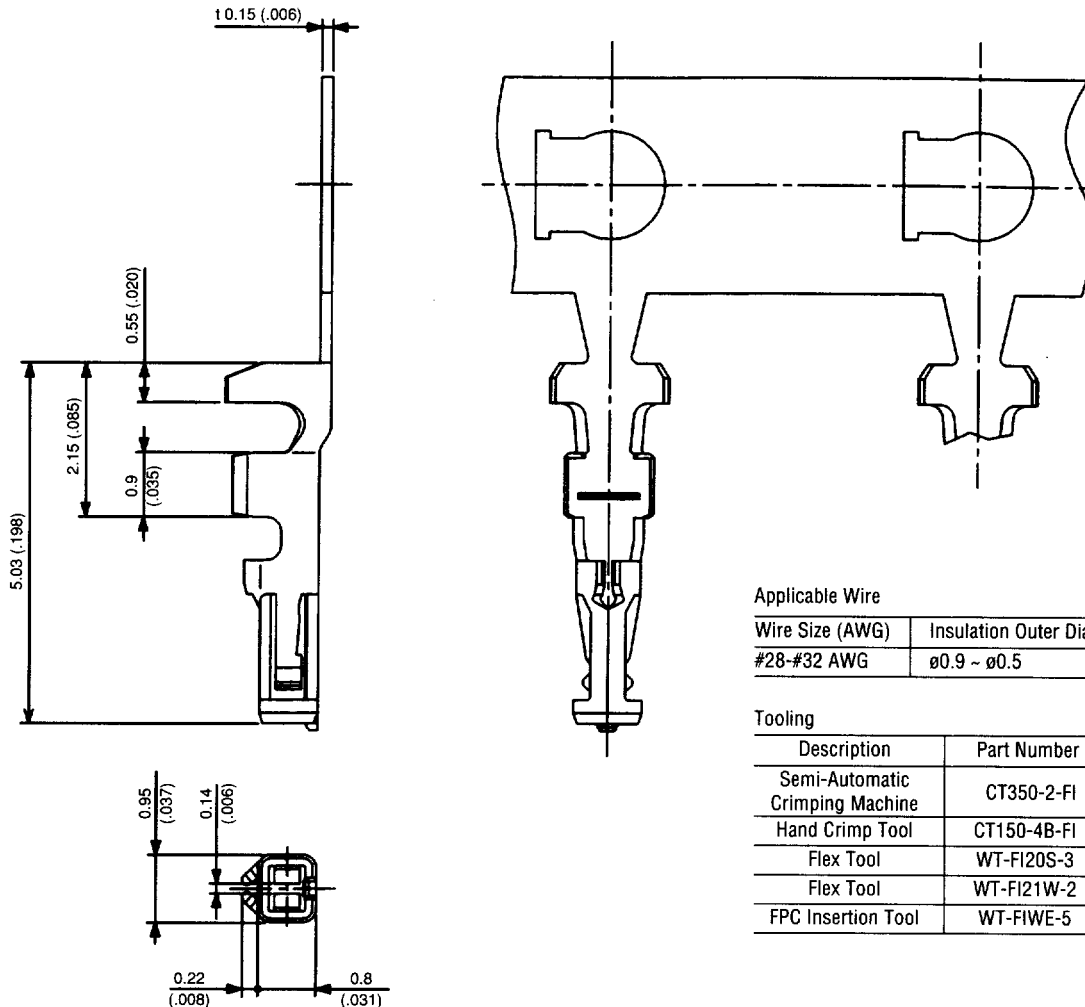
Part Number: FI-S20S

SOCKET HOUSING SINGLE ROW UNSHIELDED



SOCKET CONTACT (CRIMP TYPE)

Part Number: FI-C3-A1-15000 (Note: Contacts 15,000 pcs. per reel)



Applicable Wire

Wire Size (AWG)	Insulation Outer Dia.
#28-#32 AWG	ø0.9 ~ ø0.5

Tooling

Description	Part Number	Size
Semi-Automatic Crimping Machine	CT350-2-FI	
Hand Crimp Tool	CT150-4B-FI	
Flex Tool	WT-FI20S-3	20
Flex Tool	WT-FI21W-2	21
FPC Insertion Tool	WT-FIWE-5	21

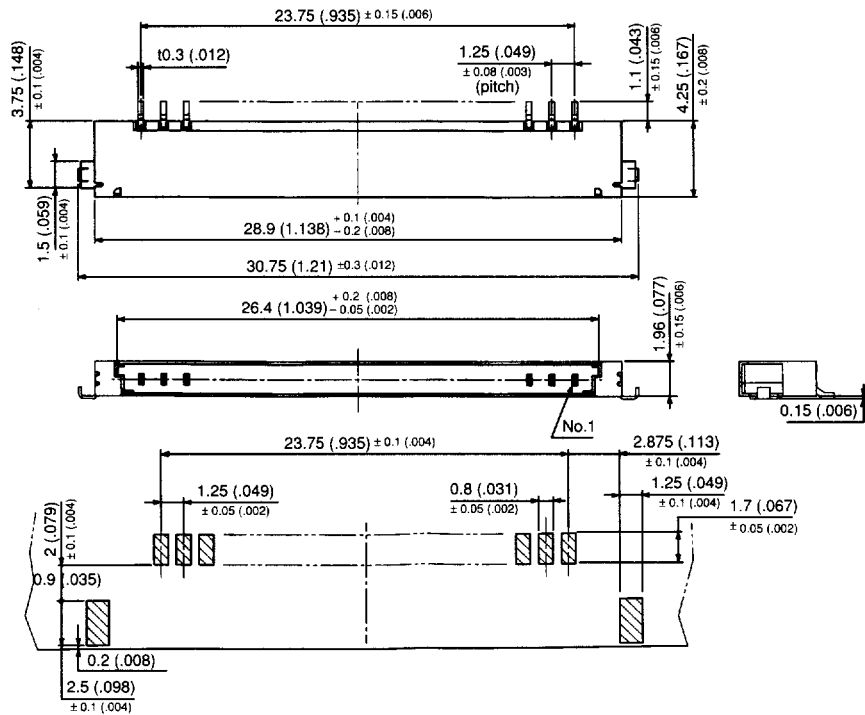
Dimensions in mm (inches).

FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

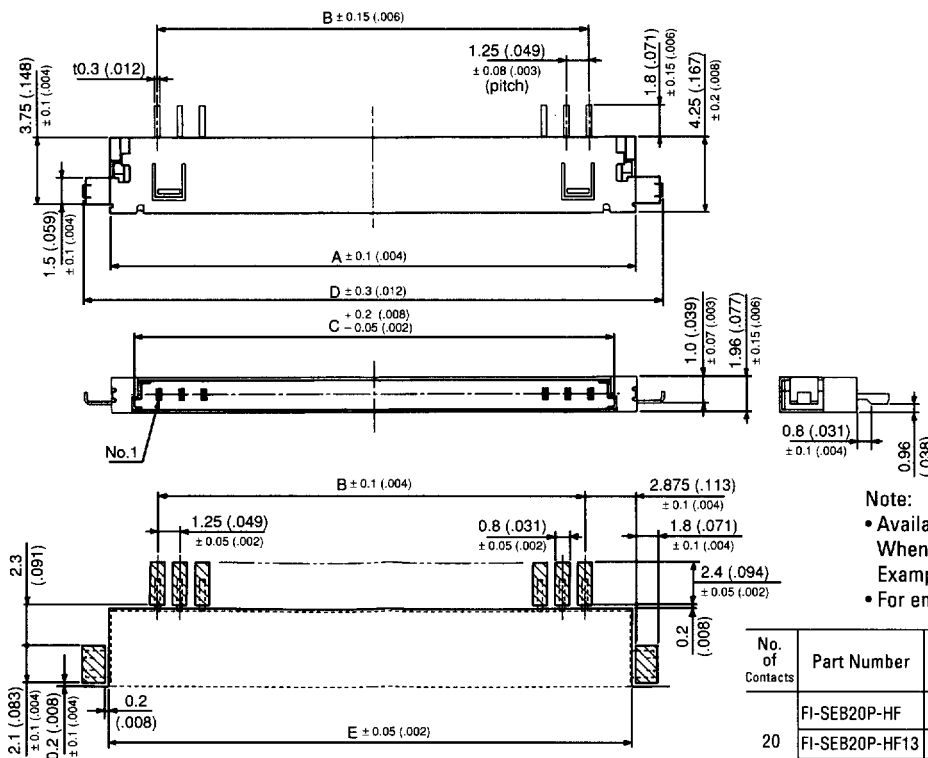
Part Number: FI-SE20P-HF

RIGHT ANGLE HEADER • 20 POSITION • SINGLE ROW SHIELDED TOP MOUNTING



Part Number: FI-SEB20P-HF**

RIGHT ANGLE HEADER • 20 POSITION • SINGLE ROW SHIELDED WITH PCB INSET



Note:

- Available in embossed tape. Unit: 1500/1 reel
- When ordering, write name of series and add -E1500.
- Example: FI-SEB20P-HF-E1500
- For embossed tape reels, please consult JAE.

No. of Contacts	Part Number	A	B	C	D	E
20	FI-SEB20P-HF	28.9 (1.14)	23.75 (0.94)	26.4 (1.04)	31.9 (1.26)	29.1 (1.15)
	FI-SEB20P-HF13	28.9 (1.14)	23.75 (0.94)	26.4 (1.04)	32.26 (1.27)	29.1 (1.15)
	FI-SEB20P-HF10	28.9 (1.14)	23.75 (0.94)	26.4 (1.04)	32.86 (1.29)	29.1 (1.15)

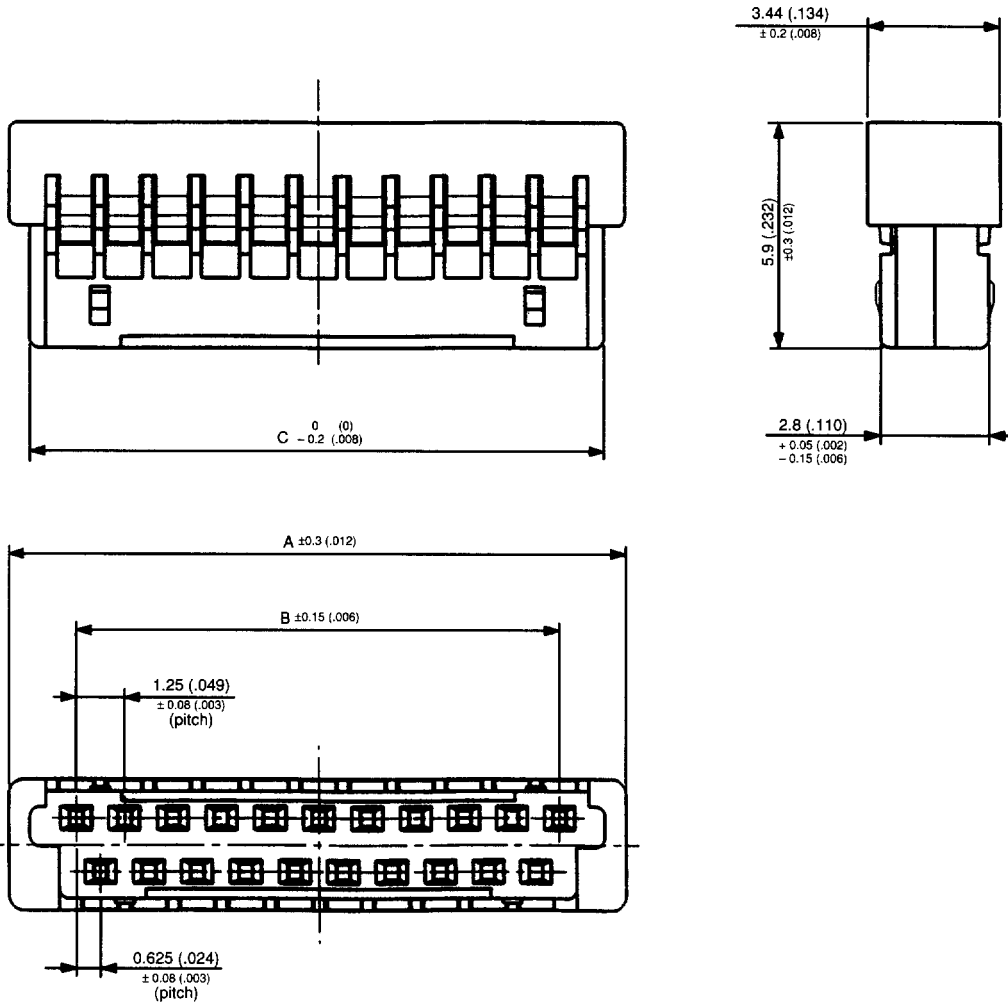
Dimensions in mm (inches).

FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

Part Number: FI-W**S

SOCKET HOUSING • TWO ROW UNSHIELDED



Note : Socket housing can have a metal shield attached for twist pair cable. Consult JAE.

No. of Contacts	Part Number	A	B	C
21	FI-W21S	16 (.63)	12.5 (.49)	14.9 (.59)
31	FI-W31S	22.25 (.88)	18.75 (.74)	21.15 (.83)
41	FI-W41S	28.5 (1.12)	25 (.98)	27.4 (1.08)

Dimensions in mm (inches).

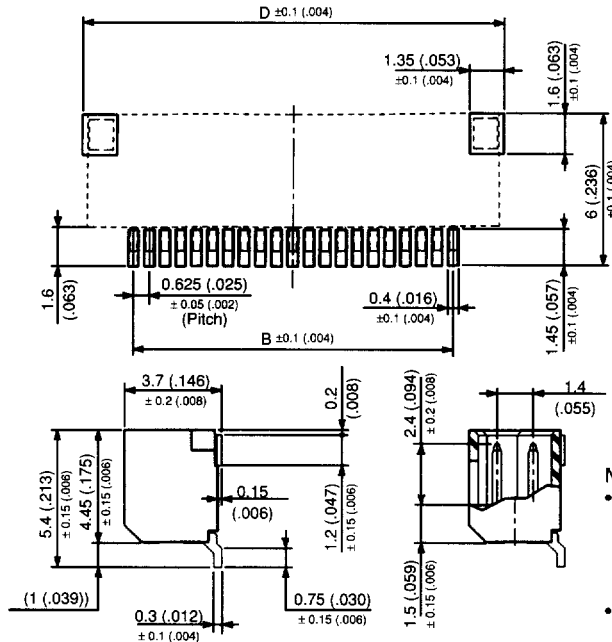
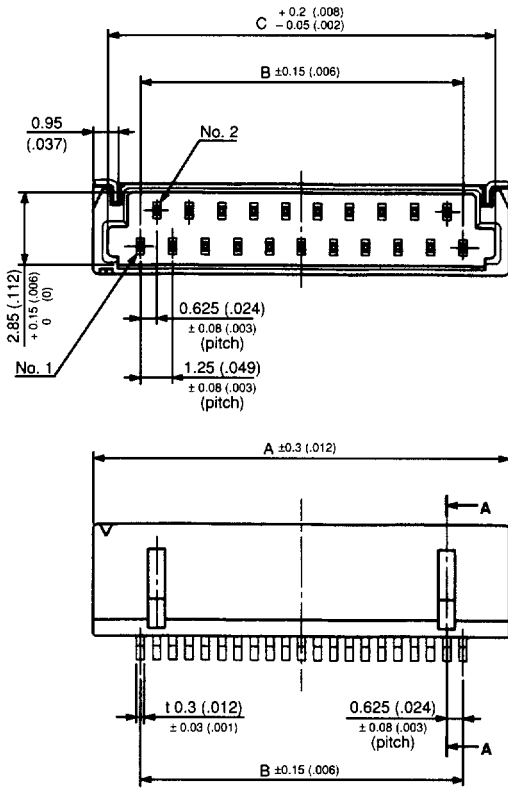


FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

Part Number: FI-W**P-HF

RIGHT ANGLE HEADER • 21 POSITION • TWO ROW UNSHIELDED

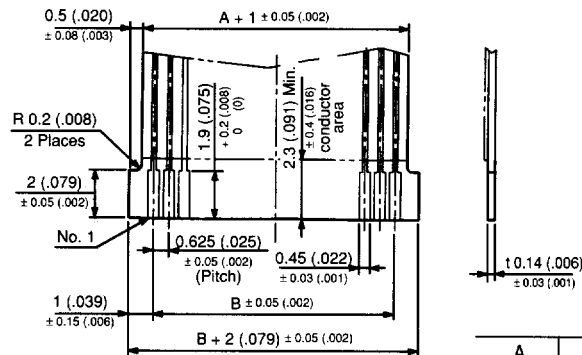
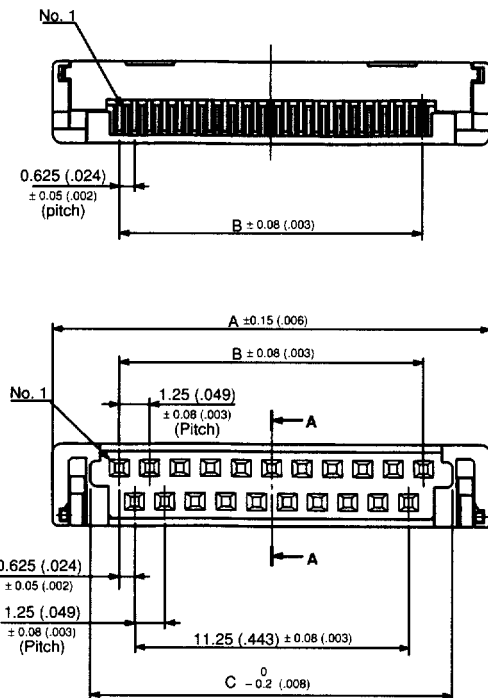


Note:
 • Available in embossed tape.
 Unit: 1500/1 reel
 When ordering, write name of series and add -E1500.
 Example: FI-SEB20P-HF-E1500
 • For embossed tape reels, please consult JAE.

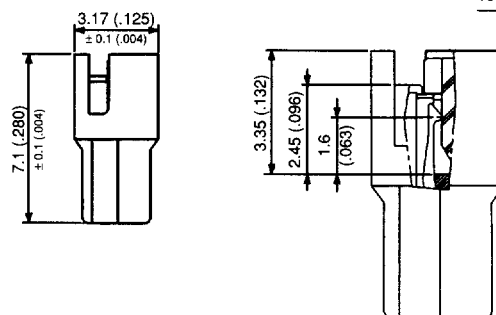
No. of Contacts	Part Number	A	B	C	D
21	FI-W21P-HF	16.1 (.63)	12.5 (.49)	15 (.59)	16.5 (.65)
31	FI-W31P-HF	22.35 (.88)	18.75 (.74)	21.25 (.84)	22.75 (.90)
41	FI-W41P-HF	28.6 (1.13)	25 (.98)	27.5 (1.08)	29 (1.14)

FLEX CIRCUIT • 21 POSITION • TWO ROW UNSHIELDED

Part Number: FI-W**M



A	B	C
18.1 (.71)	12.5 (.49)	14.9 (.59)



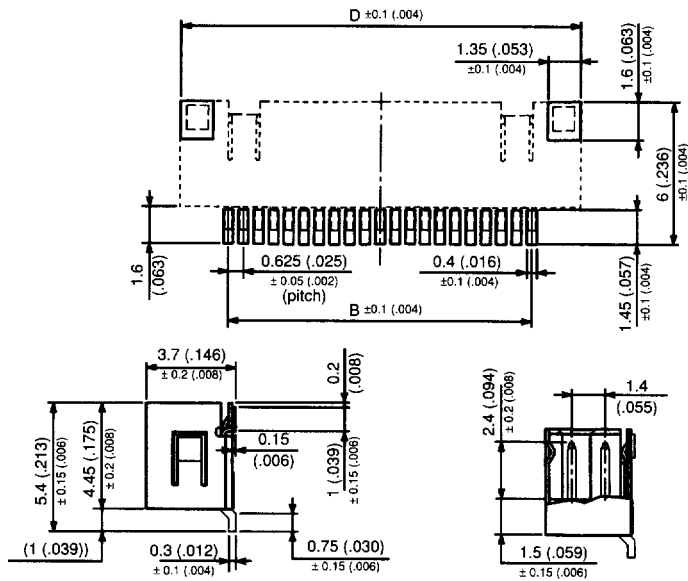
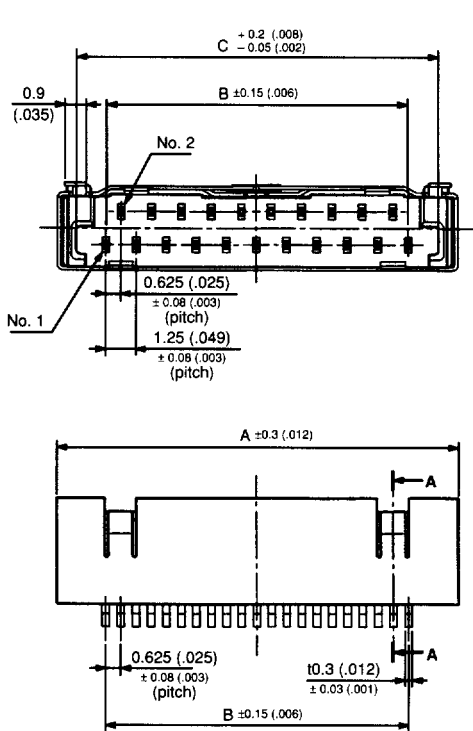
Dimensions in mm (inches).

FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

Part Number: FI-WE21P-HF

RIGHT ANGLE HEADER • 21 POSITION • TWO ROW SHIELDED



No. of Contacts	Part Number	A	B	C	D
21	FI-WE21P-HF	16.55 (.65)	12.5 (.49)	15 (.59)	16.5 (.65)
31	FI-WE31P-HF	22.8 (.90)	18.75 (.74)	21.25 (.84)	22.75 (.90)
41	FI-WE41P-HF	29.1 (1.15)	25 (.98)	27.5 (1.08)	29 (1.14)

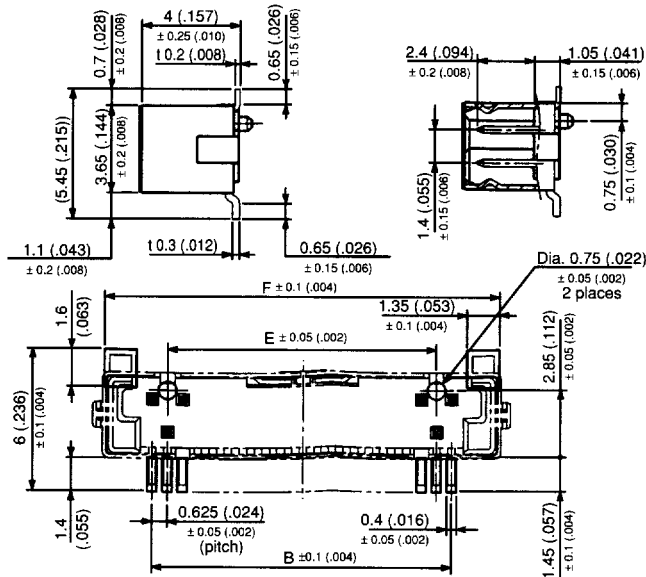
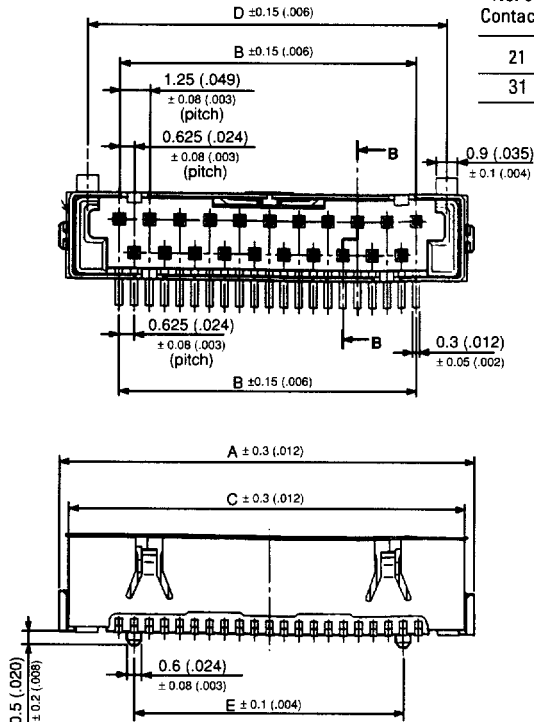
Note:
• Available on embossed tape. E1500, (1500 pieces per reel).

Part Number: FI-TWE21P-VF

STRAIGHT HEADER • 21 POSITION • TWO ROW SHIELDED WITH KAPTON TAPE

No. of Contacts	Part Number	A	B	C	D	E	F
21	FI-TWE21P*-VF	17.45 (.69)	12.5 (.49)	16.65 (.66)	15.15 (.60)	11.25 (.44)	16.5 (.65)
31	FI-TWE31P*-VF	23.7 (.93)	18.75 (.74)	22.9 (.90)	21.4 (.84)	17.5 (.69)	22.75 (.90)

Note: Available on embossed tape. E1400, (1400 pieces per reel).



Dimensions in mm (inches).

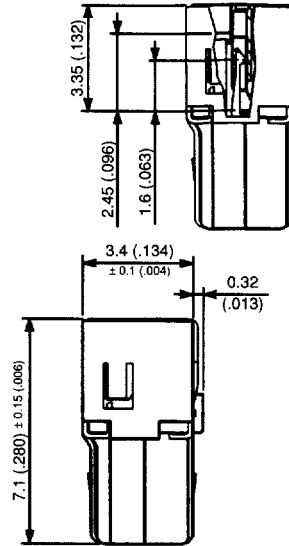
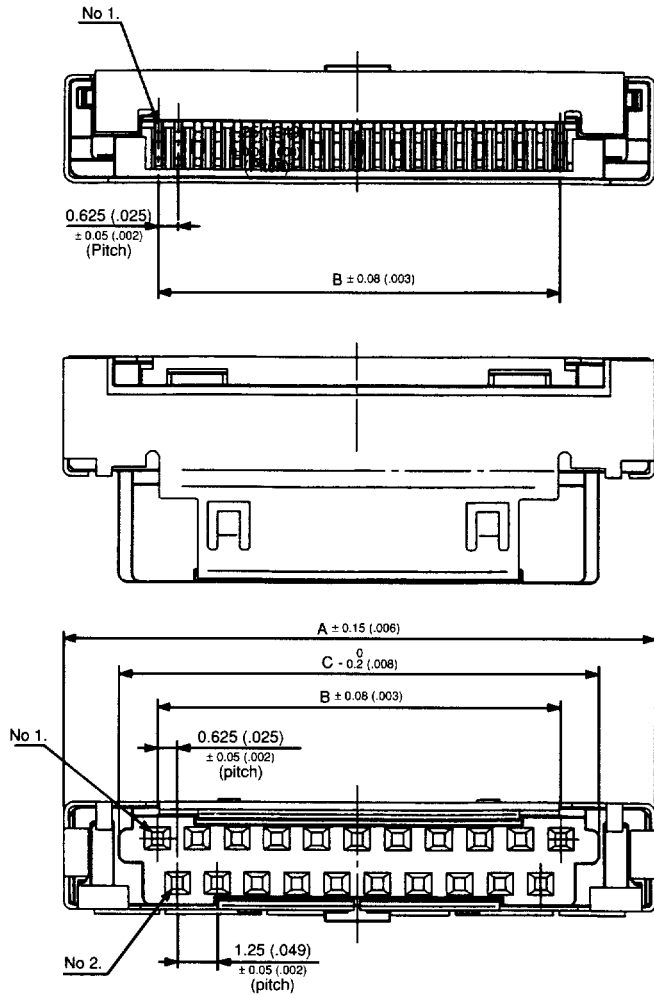


FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

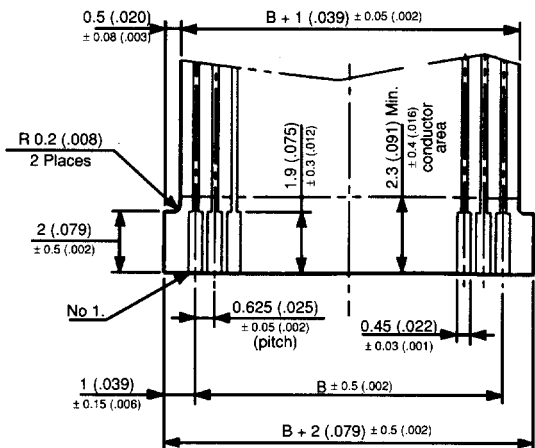
Part Number: FI-WE**M

FLEX CIRCUIT



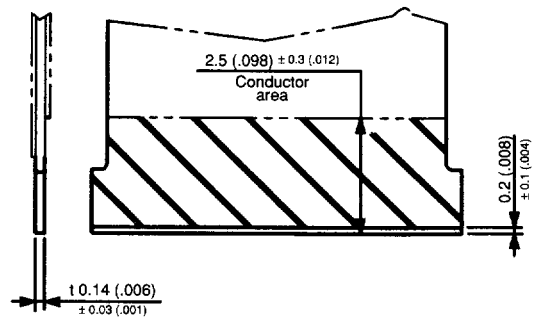
No. of Contacts	Part Number	A	B	C
21	FI-WE21M	18.5 (.73)	12.5 (.49)	14.9 (.59)
31	FI-WE31M	24.75 (.97)	18.75 (.74)	21.15 (.83)

Signal Side



Ground Side

Applicable FPC (Ref.)

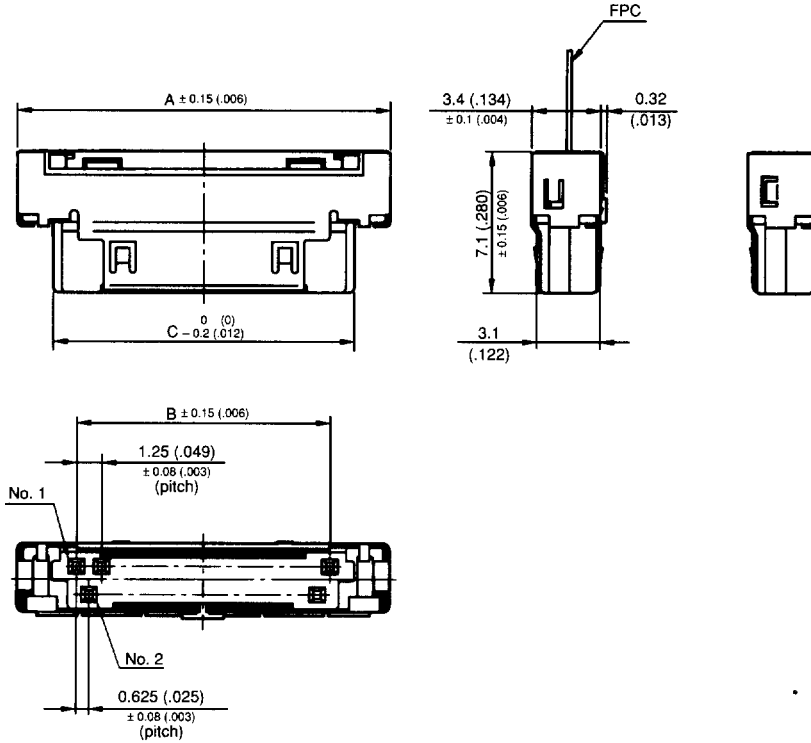


Dimensions in mm (inches).

FI SERIES CONNECTORS

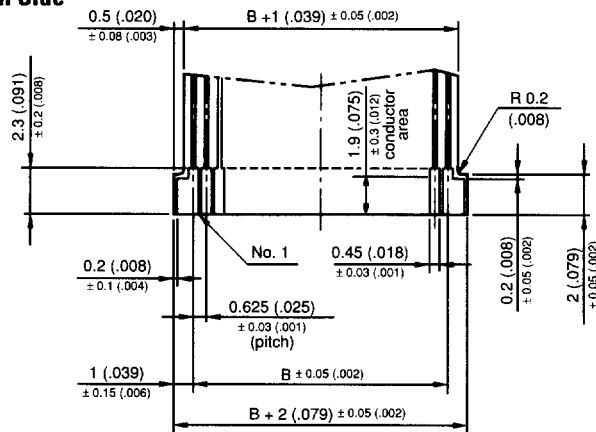
1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

FLEX CIRCUIT

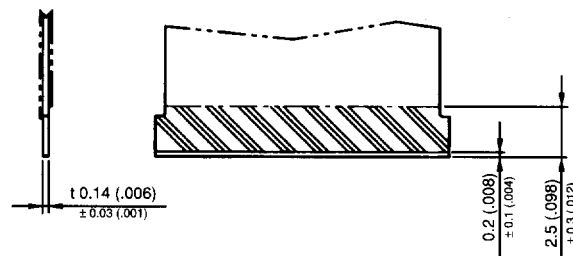


Applicable FPC (Ref.)

Signal Side



Ground Side



No. of Contacts	Part Number	A	B	C
21	FI-WE21MV	18.5 (.73)	12.5 (.49)	14.9 (.59)
31	FI-WE31MV	24.75 (.97)	18.75 (.74)	21.15 (.83)

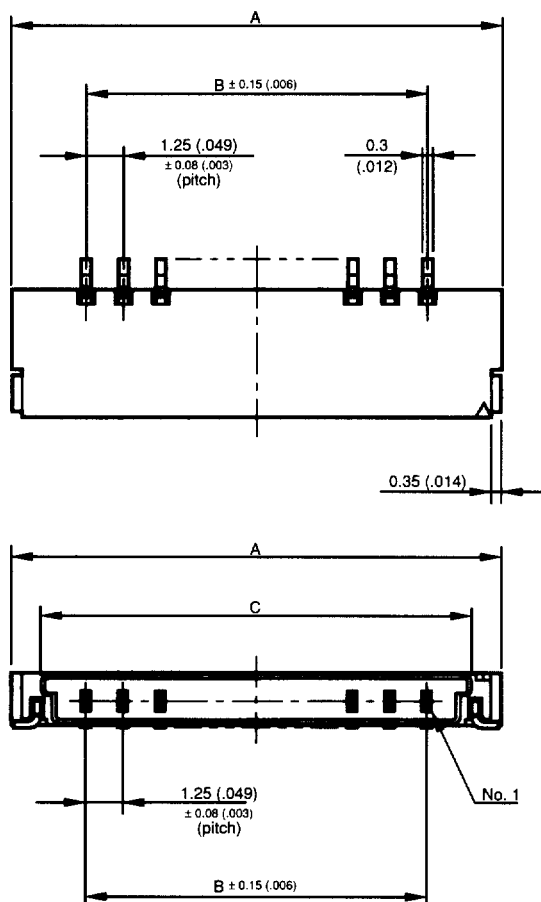
Dimensions in mm (inches).

FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

Part Number: FI-S**P-HF

SINGLE ROW • RIGHT ANGLE UNSHIELDED



No. of Contacts	Part Number	A	B	C	D
2	*FI-S 2P-HF	6.1 (.24)	1.25 (.05)	3.9 (.15)	6.4 (.25)
3	*FI-S 3P-HF	7.35 (.29)	2.5 (.10)	5.15 (.20)	7.65 (.30)
4	*FI-S 4P-HF	8.6 (.34)	3.75 (.15)	6.4 (.25)	8.9 (.35)
5	*FI-S 5P-HF	9.85 (.39)	5 (.20)	7.65 (.30)	10.15 (.40)
6	*FI-S 6P-HF	11.1 (.44)	6.25 (.25)	8.9 (.35)	11.4 (.45)
8	*FI-S 8P-HF	13.6 (.49)	8.75 (.34)	11.4 (.45)	13.9 (.55)
10	FI-S 10P-HF	16.1 (.63)	11.25 (.44)	13.91 (.55)	16.4 (.65)
15	*FI-S 15P-HF	22.35 (.88)	17.5 (.69)	20.15 (.80)	22.65 (.89)
20	*FI-S 20P-HF	28.6 (1.13)	23.75 (.94)	26.4 (1.04)	28.9 (1.14)
25	FI-S 25P-HF	34.85 (1.37)	30 (1.18)	32.65 (1.28)	35.15 (1.38)
30	FI-S 30P-HF	41.1 (1.62)	36.25 (1.43)	38.9 (1.53)	41.4 (1.63)

Note:

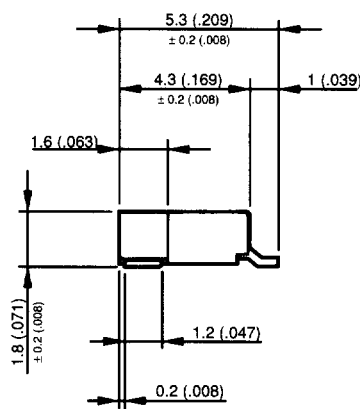
* Available in embossed tape.

Unit: 1500/1 reel

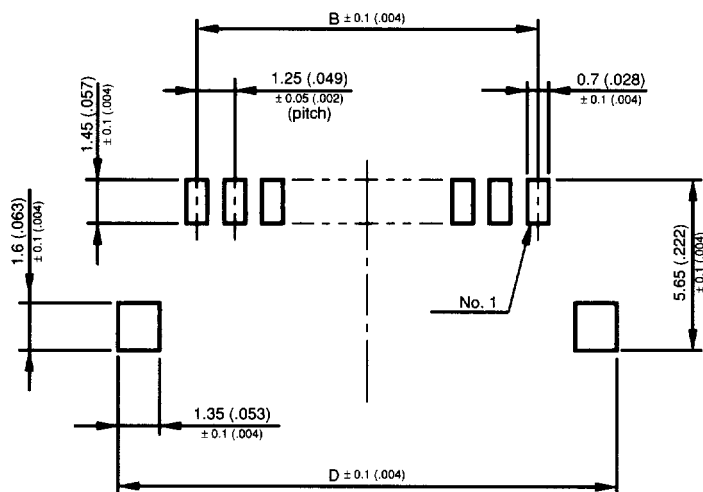
When ordering, write name of series and add -E1500.

Example: FI-SEB20P-HF-E1500

For embossed tape reels, please consult JAE.



Applicable PCB Layout (Ref.)

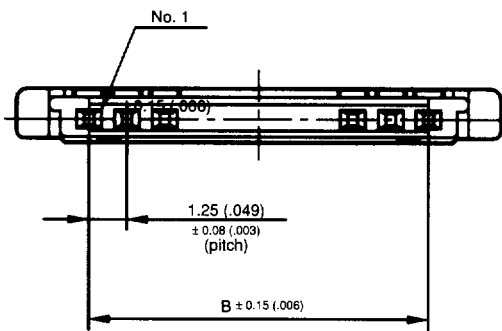
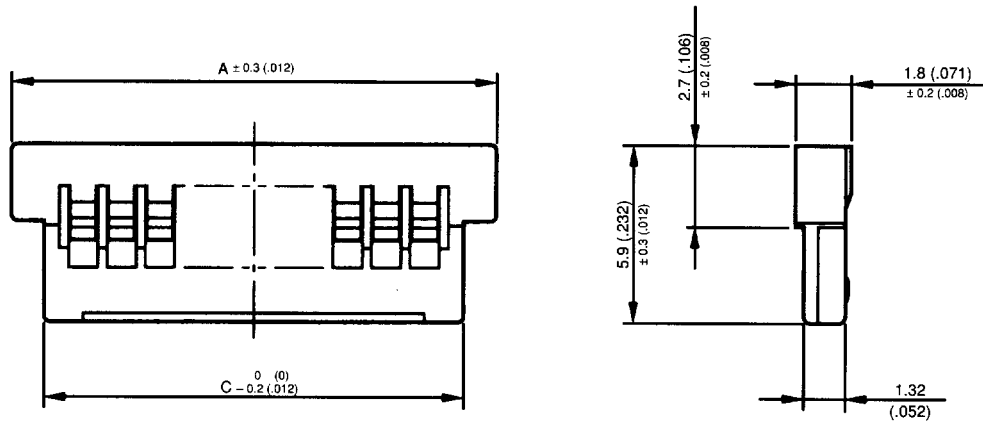


Dimensions in mm (inches).

FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

SOCKET HOUSING • UNSHIELDED

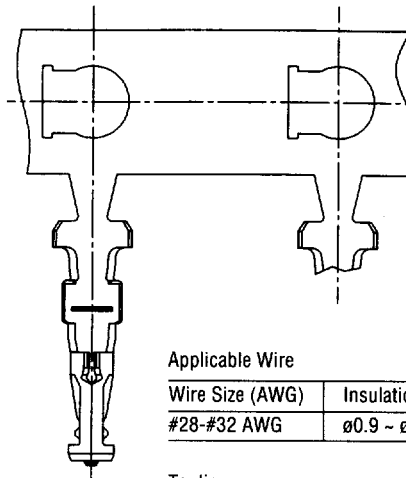
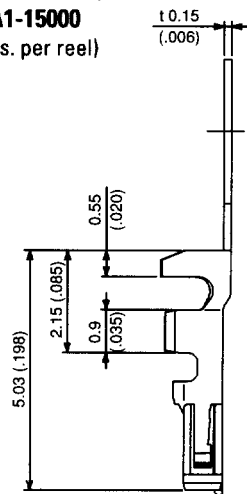


No. of Contacts	Part Number	A	B	C
2	FI-S 2S	6 (.24)	1.25 (.05)	3.8 (.19)
3	FI-S 3S	7.25 (.29)	2.5 (.10)	5.05 (.24)
4	FI-S 4S	8.5 (.34)	3.75 (.15)	6.3 (.29)
5	FI-S 5S	9.75 (.38)	5 (.20)	7.55 (.34)
6	FI-S 6S	11 (.43)	6.25 (.25)	8.8 (.39)
8	FI-S 8S	13.5 (.53)	8.75 (.34)	11.3 (.44)
10	FI-S10S	16 (.63)	11.25 (.44)	13.8 (.49)
15	FI-S15S	22.25 (.88)	17.5 (.69)	20.05 (.44)
20	FI-S20S	28.5 (1.12)	23.75 (.94)	26.3 (1.04)
25	FI-S25S	34.75 (1.37)	30 (1.18)	32.55 (1.28)
30	FI-S30S	41 (1.61)	36.25 (1.43)	38.8 (1.53)

SOCKET CONTACT (CRIMP TYPE)

Part Number: FI-C3-A1-15000

(Note: Contacts 15,000 pcs. per reel)

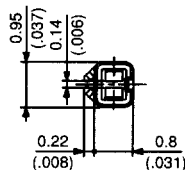


Applicable Wire

Wire Size (AWG)	Insulation Outer Dia.
#28-#32 AWG	$\phi 0.9 \sim \phi 0.5$

Tooling

Description	Part Number
Hand Crimp Tool	CT150-4B-FI
Press	CP210-1B or CP215
Applicator	350-FI-2



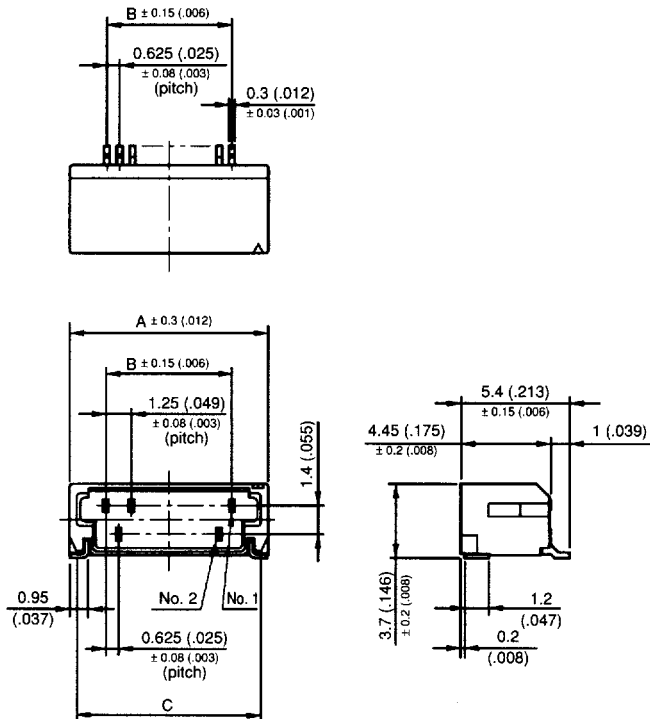
Dimensions in mm (inches).

FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

RIGHT ANGLE HEADER • DOUBLE ROW • UNSHIELDED

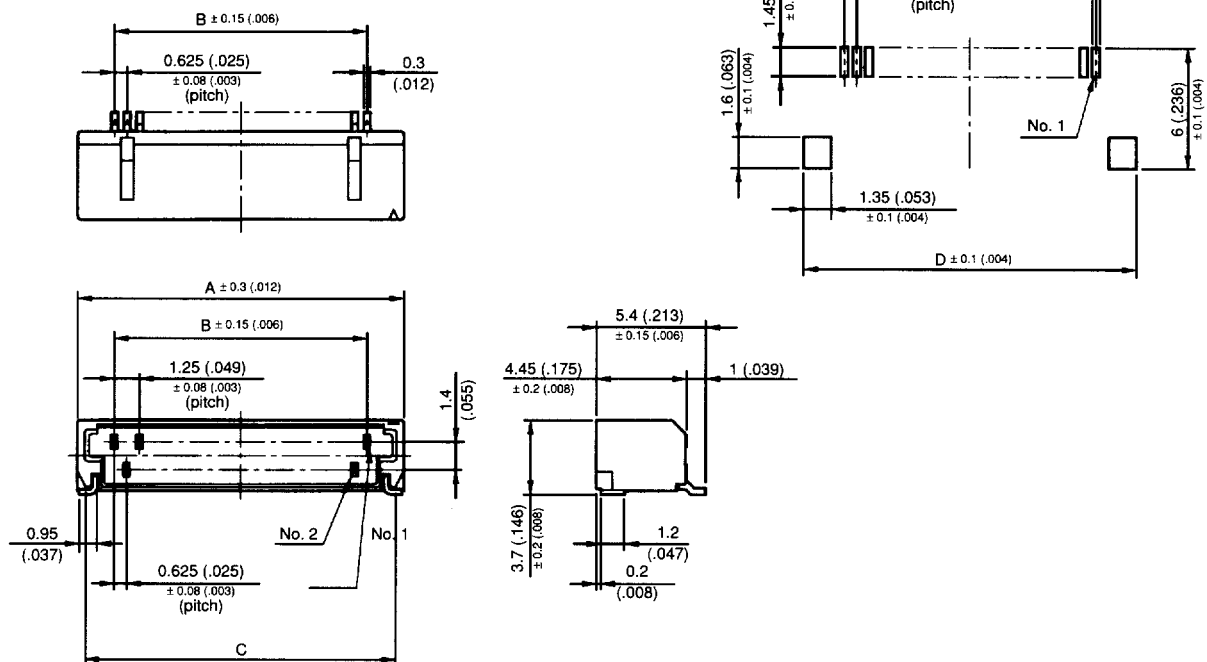
5, 7, 9, 11 Contacts



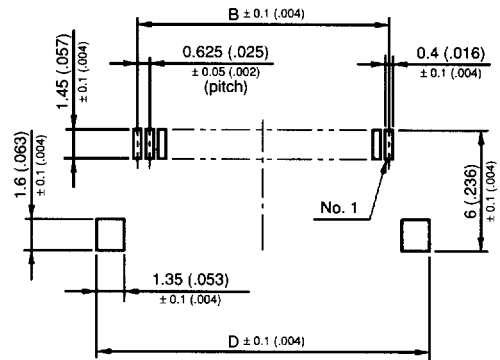
No. of Contacts	Part Number	A	B	C	D
5	FI-W 5P-HF	6.1 (.24)	2.5 (.10)	5 (.20)	6.5 (.26)
7	*FI-W 7P-HF	7.35 (.29)	3.75 (.15)	6.25 (.25)	7.75 (.31)
9	*FI-W 9P-HF	8.6 (.34)	5 (.20)	7.5 (.30)	9 (.35)
11	FI-W11P-HF	9.85 (.39)	6.25 (.25)	8.75 (.34)	10.25 (.40)
13	FI-W13P-HF	11.1 (.44)	7.5 (.30)	10 (.39)	11.5 (.45)
15	*FI-W15P-HF	12.35 (1.13)	8.75 (.34)	11.25 (.44)	12.75 (.50)
17	*FI-W17P-HF	13.6 (.49)	10 (.39)	12.5 (.49)	14 (.55)
19	FI-W19P-HF	14.85 (.58)	11.25 (.44)	13.75 (.54)	15.25 (.60)
21	*FI-W21P-HF	16.1 (.63)	12.5 (.49)	15 (.59)	16.5 (.65)
31	FI-W31P-HF	22.35 (.88)	18.75 (.74)	21.25 (.84)	22.75 (.90)
41	*FI-W41P-HF	28.6 (1.13)	25 (.98)	27.5 (1.08)	29 (1.14)

Note:
 * Available in embossed tape. Unit: 1500/1 reel
 When ordering, write name of series and add -E1500.
 Example: FI-SEB20P-HF-E1500
 For embossed tape reels, please consult JAE.

13, 15, 17, 19, 21, 31, 41 Contacts



Applicable PCB Layout (Ref.)



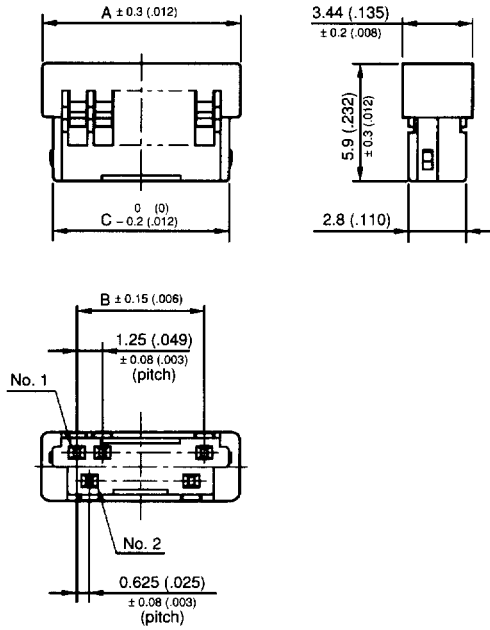
Dimensions in mm (inches).

FI SERIES CONNECTORS

1.25mm (.049") Contact Spacing, PCB-to-Cable Connectors

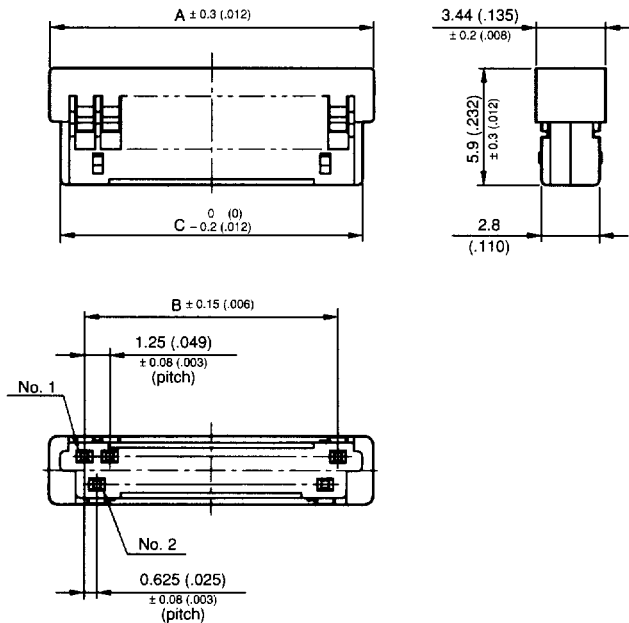
SOCKET HOUSING • DOUBLE ROW

5, 7, 9, 11 Contacts



No. of Contacts	Part Number	A	B	C
5	FI-W 5S	6 (.24)	2.5 (.10)	4.9 (.19)
7	FI-W 7S	7.25 (.29)	3.75 (.15)	6.15 (.24)
9	FI-W 9S	8.5 (.34)	5 (.20)	7.4 (.29)
11	FI-W11S	9.75 (.38)	6.25 (.25)	8.65 (.34)
13	FI-W13S	11 (.43)	7.5 (.30)	9.9 (.39)
15	FI-W15S	12.25 (.48)	8.75 (.34)	11.15 (.44)
17	FI-W17S	13.5 (.53)	10 (.39)	12.4 (.49)
19	FI-W19S	14.75 (.58)	11.25 (.44)	13.65 (.54)
21	FI-W21S	16 (.63)	12.5 (.49)	14.9 (.59)
31	FI-W31S	22.25 (.88)	18.75 (.74)	21.15 (.83)
41	FI-W41S	28.5 (1.12)	25 (.98)	27.4 (1.08)

13, 15, 17, 19, 21, 31, 41 Contacts



Dimensions in mm (inches).