



FFC / FPC / CIC Connectors

November 2003



Introduction

Created in 1989, FCI - an Areva Group company - rapidly secured its place among the world's top three manufacturers of connectors and interconnect systems.

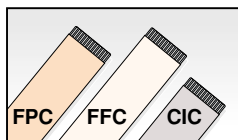
With a turnover of 1.56 billion Euros (1.47 billion dollars) in 2002, FCI currently operates in 29 countries where it covers the following markets : communications, data, consumer, automotive and electrical power interconnect.

The company employs about 14 000 staff worldwide.

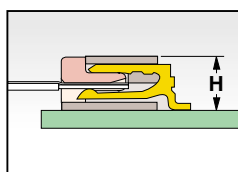
For more information:

www.fciconnect.com

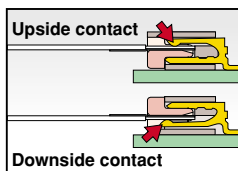
Selection Innovation Reliability Economy



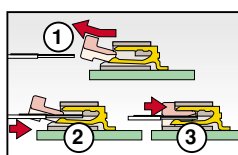
Circuitry and cable
Flexible Printed Circuit (FPC)
Flexible Flat Cable (FFC)
Conductive Ink Circuitry (CIC)



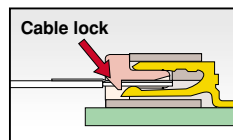
Low profile body heights
Permit low PCB clearance



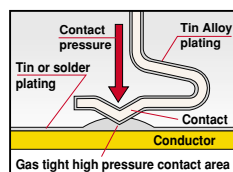
Upper or lower contact orientation
Provides design flexibility



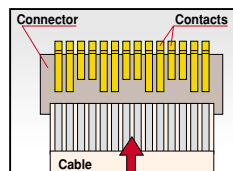
Zero Insertion Force (ZIF)
Allows easy cable insertion
(cable is pre-held by slider)
for a reliable connection



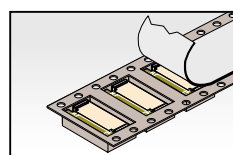
Cable Lock alignment system
Ensures proper alignment during mating and prevents unintentional cable release



Gas Tight High pressure (GTH) contact system
Provides highly-reliable contact performance



Low Insertion Force (LIF)
Special contact arrangement provides reliable and easy mating operation



Embossed Tape-and-Reel packaging
Supports automated PCB assembly process

Contents

0.30 mm spacing

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0.50 mm spacing

62674 Series	8
62684 Series	10
SFV Series	12

1.00 mm spacing

SFW Series	14
HFW Series	16
SLW Series	18
HLW Series	20

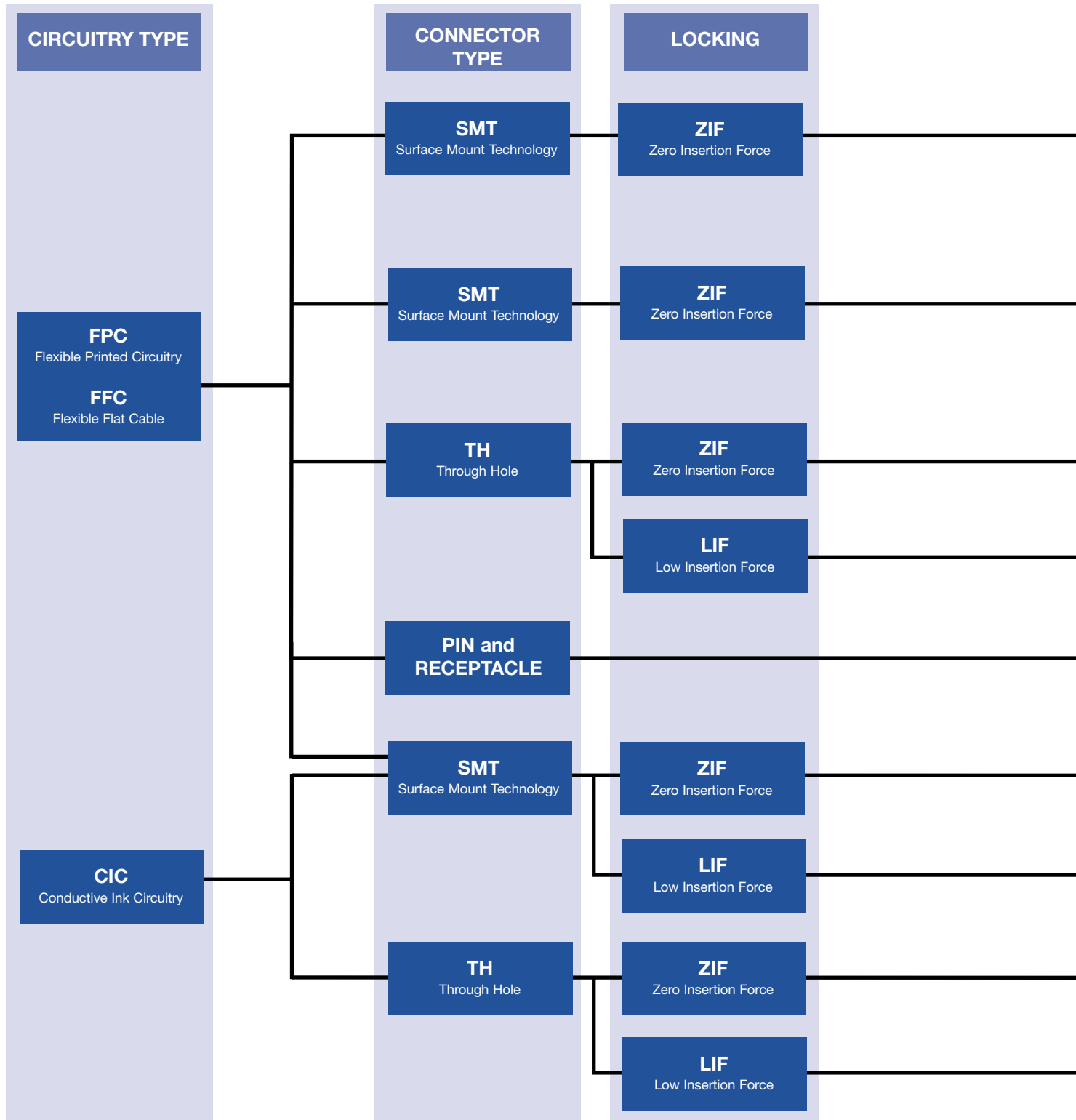
2.54 mm spacing

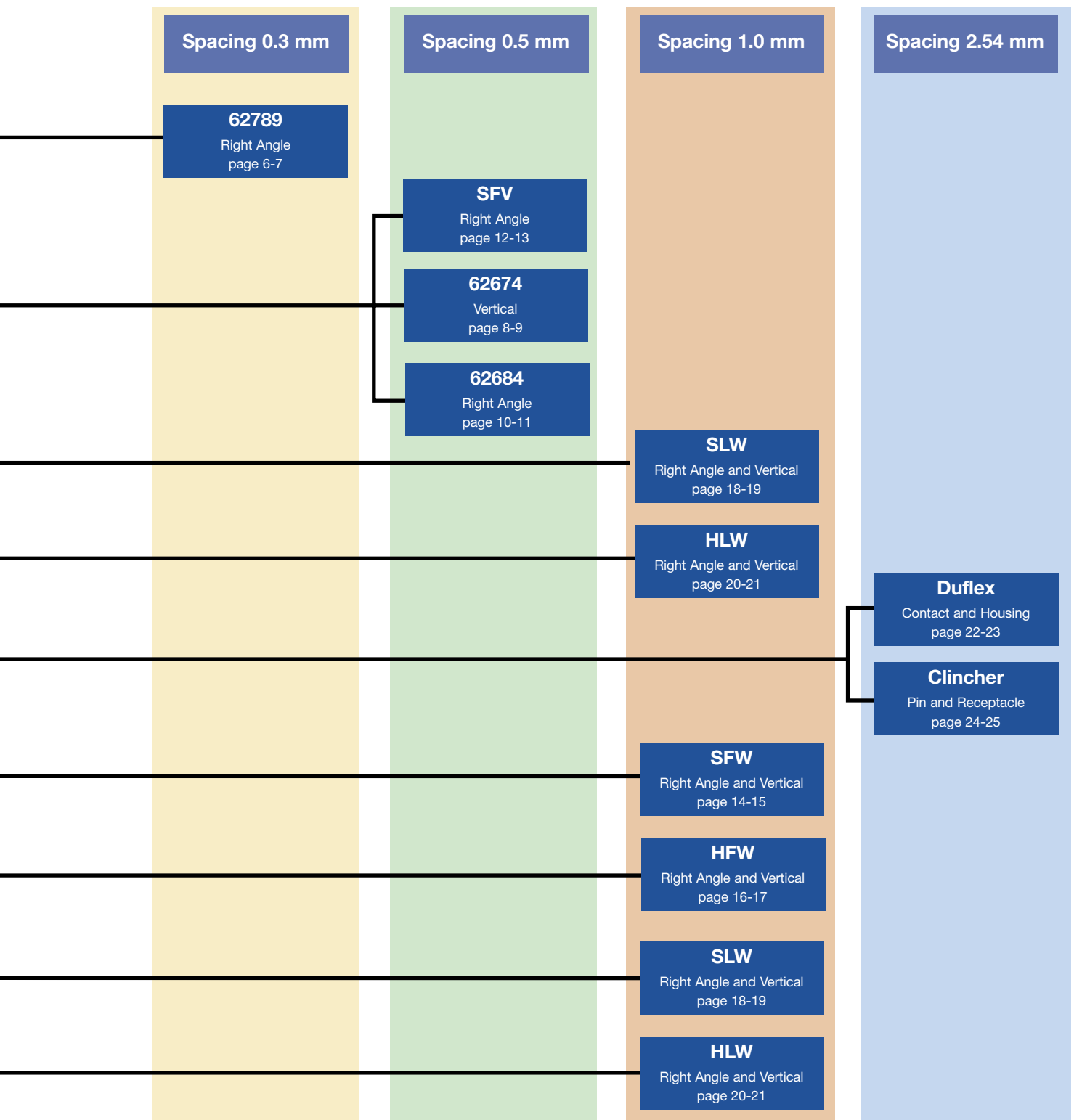
DUFLEX Series	22
CLINCHER Series	24

GENERAL

Product chart	4-5
Circuitry lay-outs	26-31
Performance characteristics	32
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Product Chart





Features

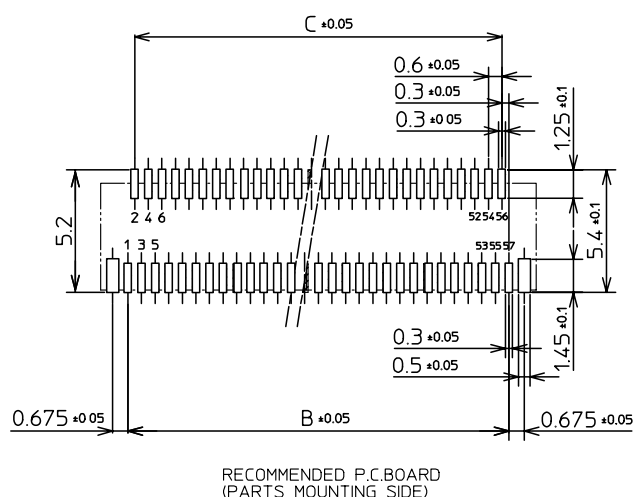
-
- Two white plastic connectors with black strips and gold pins, shown from different angles. The connectors are rectangular with a series of gold pins along one edge. A black strip is attached to the top of each connector. The image shows two identical connectors, one from a side-on perspective and one from a slightly different angle, highlighting the gold pins and the black strip.

- Low profile of 2.00 mm
- Flip-Top cover rotates back 100 degrees for easy cable positioning.
- Staggered PCB layout enables space savings and easy soldering.
- The Zero Insertion Force (ZIF) connection allows an increased number of mating cycles with minimal wear.
- The ZIF pre-holding process provides a stable and reliable mating operation.

PC Board pattern (component side)

Housing : Thermoplastic Resin, White
Slider : Thermoplastic Resin, Black
Contact : Phosphor Bronze, Tin alloy plated

B = 0.30 x total number of positions - 0.30
C = 0.30 x total number of positions - 0.90



0.30 mm Spacing for FPC

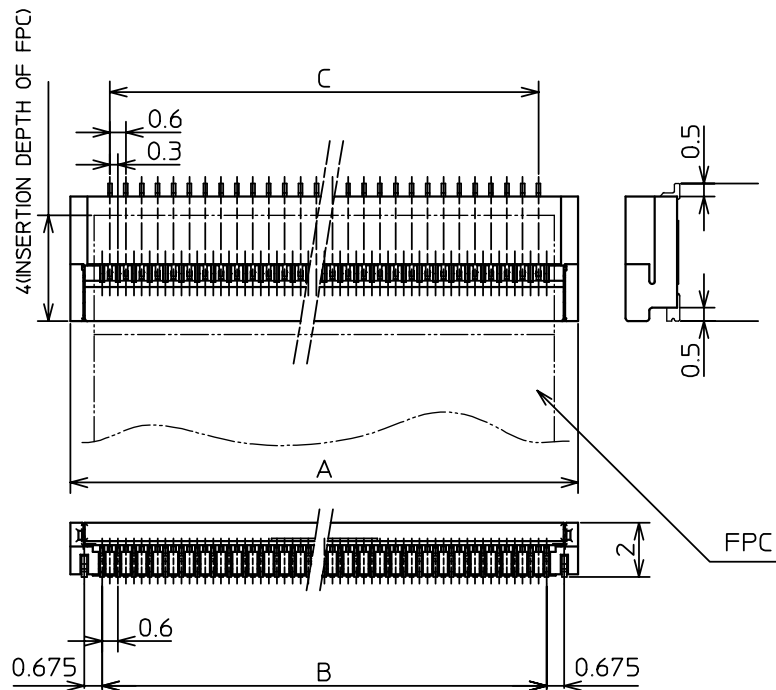
Ordering Data

Series 62789 - Positions 1100

Number of contacts 27, 33, 39, 45, 51, 57, 67
(for other number of positions, please contact FCI)

Packaging Tape and reel : 3000 pcs.

Dimensions

**Dimensions**

A = 0.30 x total number of positions + 2.10

B = 0.30 x total number of positions - 0.30

C = 0.30 x total number of positions - 0.90

Circuitry Type For Recommended Circuitry type see page 27

Features

-
- Three black plastic connectors with metal pins are shown against a dark background. Two connectors are positioned diagonally in the lower-left and center, while a third is positioned vertically in the upper-right. Each connector has a series of metal pins protruding from its side.

- The Gas-Tight, High pressure (GTH) contact system ensures a low cost connection with reliability equal to gold plating.
- The Zero Insertion Force (ZIF) connection allows an increased number of mating cycles with minimal wear.
- The ZIF pre-holding process provides a stable and reliable mating operation.
- The slider ensures maximum cable retention with a minimum size.
- Fork shaped contacts mean stable and low contact resistance.
- The cable lock option provides cable strain relief as well as full retention of cable.

PC Board pattern (component side)

Technical drawing of a double-row ball bearing. The drawing shows two rows of balls. Key dimensions are labeled:

- $C \pm 0.05$: Total width of the bearing.
- 0.5 ± 0.03 : Distance from the left face to the center of the first ball in the top row.
- 0.4 ± 0.05 : Distance between the centers of two adjacent balls in the top row.
- $No. 1$: Label pointing to the balls.
- 1.6 ± 0.05 : Distance from the top face to the center of the balls.
- 4 ± 0.05 : Total height of the bearing.
- 1.6 ± 0.05 : Distance from the bottom face to the center of the balls.
- 0.6 : Distance from the left face to the center of the first ball in the bottom row.
- 1 : Distance between the centers of two adjacent balls in the bottom row.

$$C = 0.50 \times \text{total number of positions} - 0.50$$

0.50 mm Spacing for FFC / FPC

Ordering Data

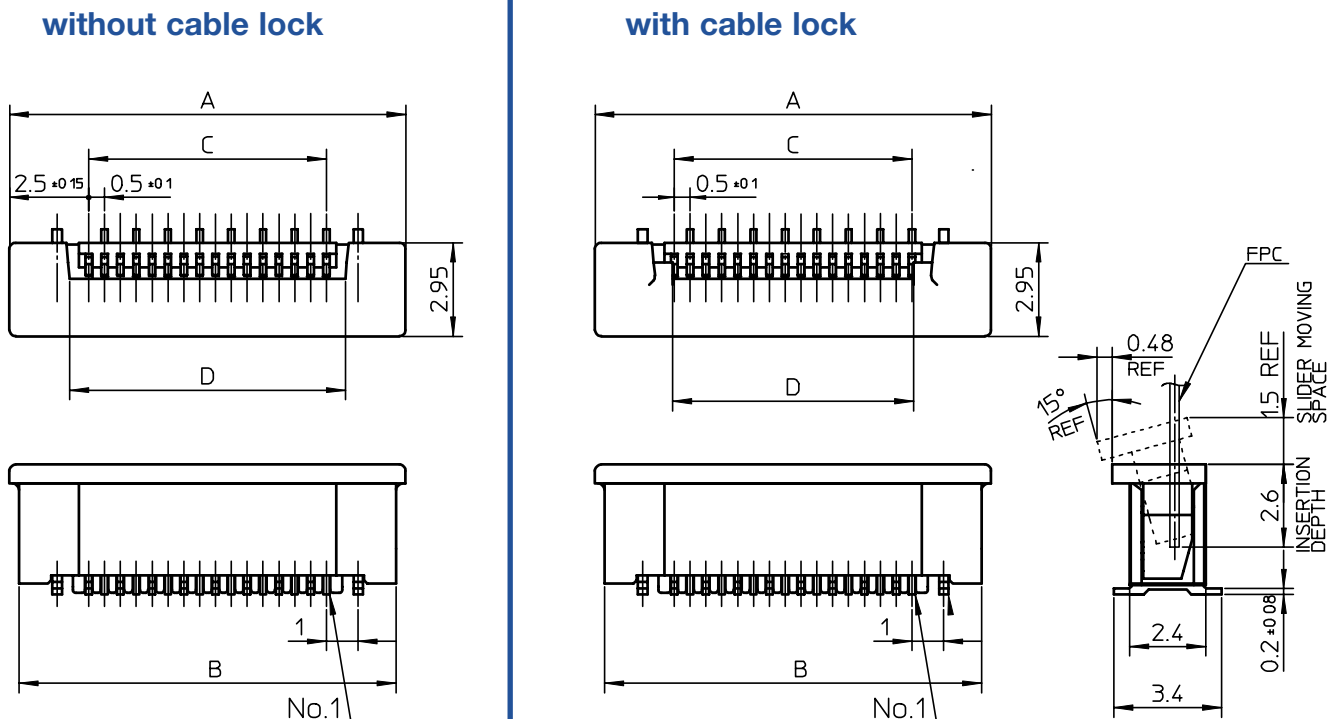
Series 62674 - Positions 11 2 1

Number of contacts 8, 12, 16, 20, 23, 24, 25, 30, 33
(for other number of positions, please contact FCI)

Cable lock 2 = without cable lock
3 = with cable lock

Packaging Tape and reel : 1000 pcs.

Dimensions



Dimensions

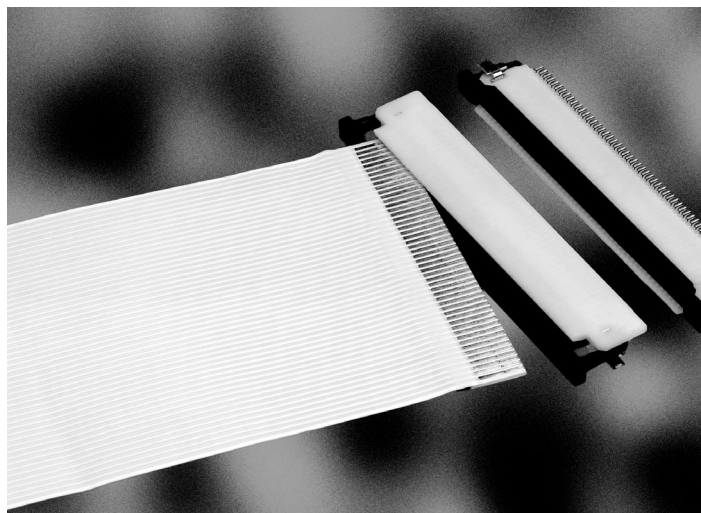
A = 0.50 x total number of positions + 4.50	±0.20
B = 0.50 x total number of positions + 3.90	±0.20
C = 0.50 x total number of positions - 0.50	±0.10
D (with cable lock) = 0.50 x total number of positions - 0.40	±0.10
D (without cable lock) = 0.50 x total number of positions + 0.70	±0.10

Circuitry Type For Recommended Circuitry type see page 27

0.50 mm Spacing for FPC / FPC

Features

- Available in 32, 34, 36, 40, 43, 45, 50 positions
- Right angle
- Excellent cable retention with small size slider



Benefits

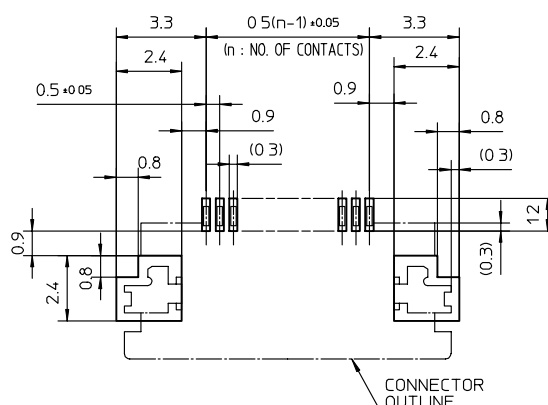
- The Gas-Tight, High pressure (GTH) contact system ensures a low cost connection with reliability equal to gold plating.
- The Zero Insertion Force (ZIF) connection allows an increased number of mating cycles with minimal wear.
- The ZIF pre-holding process provides a stable and reliable mating operation.
- The slider ensures maximum cable retention with a minimum size.
- Fork shaped contacts mean stable and low contact resistance.

Technical Data

PC Board pattern (component side)

Material

- Housing** : Glass filled thermoplastic, UL94V-0, Beige
- Slider** : Glass filled thermoplastic, UL94V-0, Black
- Contact** : Phosphor Bronze, Tin alloy plated



0.50 mm Spacing for FPC / FPC

Ordering Data

Series 62684 - Positions 2 10 0

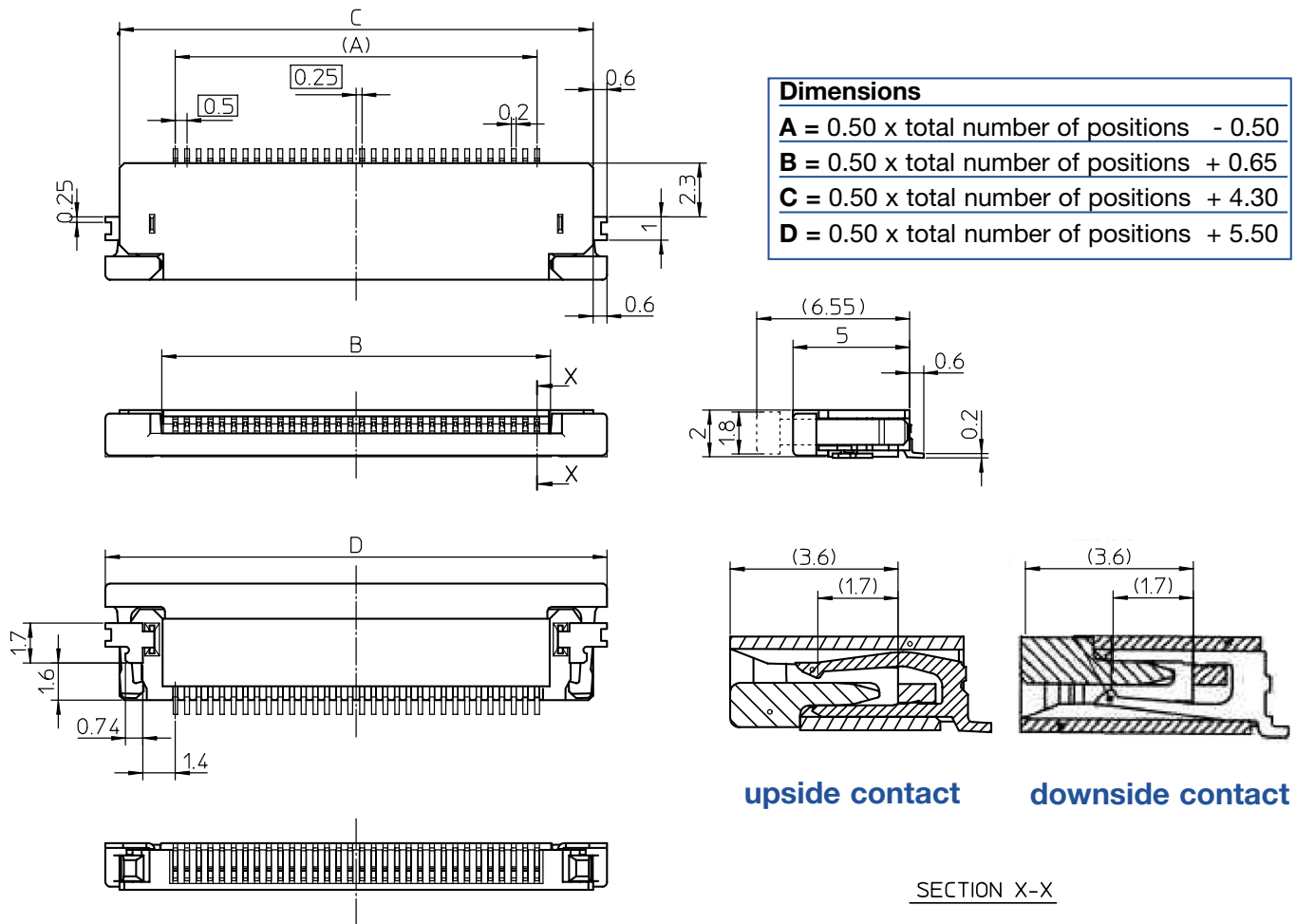
Number of contacts 32, 34, 36, 40, 43, 45, 50
(for other number of positions, please contact FCI)

Packaging

Tape and reel : 2000 pcs.

Terminal type 1 = downside contact
2 = upside contact

Dimensions

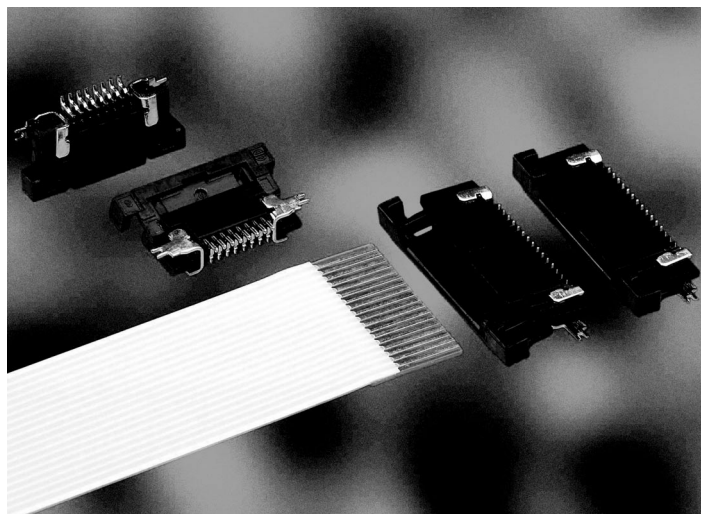


Circuitry Type For Recommended Circuitry type see page 28

0.50 mm Spacing for FFC / FPC

Features

- Available in 4 to 35 positions
- Right angle
- Cable lock option
- Top and bottom contacts
- Excellent cable retention with small size slider



Benefits

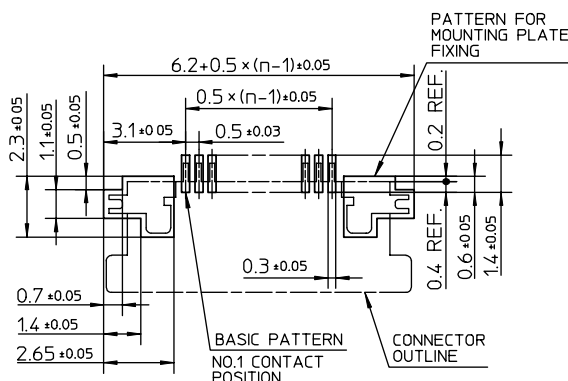
- The Gas-Tight, High pressure (GTH) contact system ensures a low cost connection with reliability equal to gold plating.
- The Zero Insertion Force (ZIF) connection allows an increased number of mating cycles with minimal wear.
- The ZIF pre-holding process provides a stable and reliable mating operation.
- The slider ensures maximum cable retention with a minimum size.
- The cable lock option provides cable strain relief as well as full retention of cable.
- Fork shaped contacts mean stable and low contact resistance.
- Product variations cover a broad range of applications.

Technical Data

PC Board pattern (component side)

Material

- Housing** : Polyamide Resin, glass reinforced, UL94V-0, Black
- Slider** : PPS Resin, glass reinforced, UL94V-0, Brown (with cable-lock : Black)
- Contact** : Phosphor Bronze, Tin alloy plated

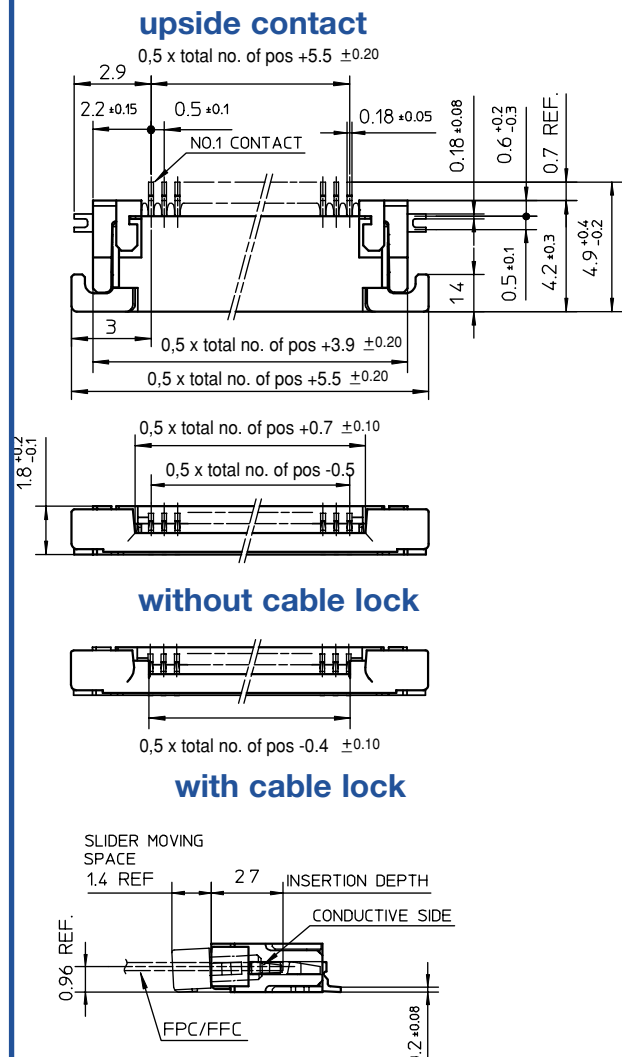
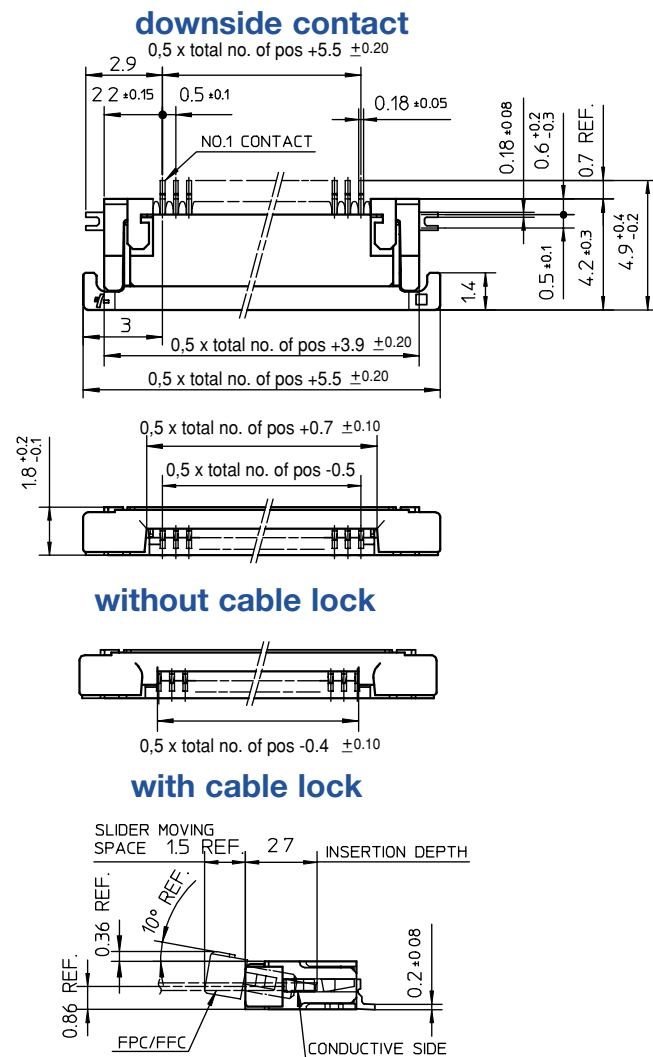


0.50 mm Spacing for FFC / FPC

Ordering Data

Series	SFV 20 R - 1 ST E1				
Number of contacts	4 to 35				Packaging tape-and-reel : 3000 pcs.
Terminal type	R = side entry				PCB mounting ST = SMT type
Cable type	1 = FPC/FFC downside contact 2 = FPC/FFC upside contact 3 = FPC (with cable-lock) downside contact 4 = FPC (with cable-lock) upside contact				

Dimensions

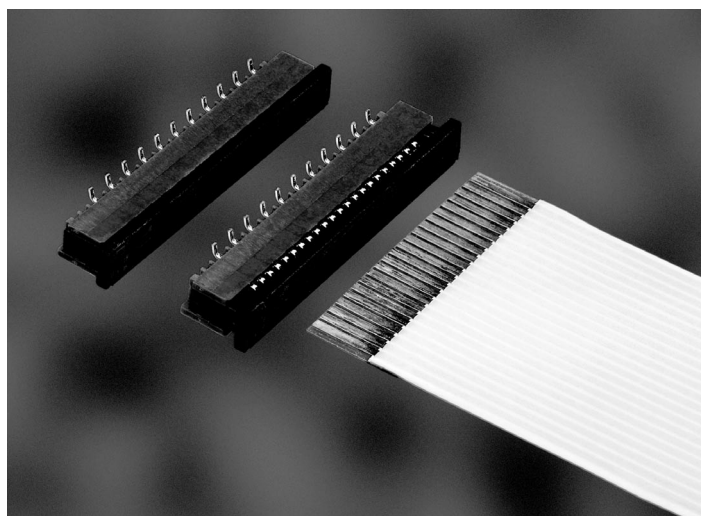


Circuitry Type For Recommended Circuitry type see page 28 and 29

1.00 mm Spacing for FFC / FPC / CIC

Features

- Available in 4 to 30 positions (right angle) and 4 to 32 positions (straight)
- Top and Bottom contacts
- Cable lock option
- Optional mounting devices (straight)
- Excellent cable retention with small size slider



Benefits

- The Gas-Tight, High pressure (GTH) contact system ensures a low cost connection with reliability equal to gold plating.
- The Zero Insertion Force (ZIF) connection allows an increased number of mating cycles with minimal wear.
- The ZIF pre-holding process provides a stable and reliable mating operation.
- The slider ensures maximum cable retention with a minimum size.
- The cable lock option provides cable strain relief as well as full retention of cable.
- Fork shaped contacts mean stable and low contact resistance.
- Product variations cover a broad range of application.
- Optional mounting devices provide PCB hold-down and strain relief for SMT tails, highly desirable for lower positions.

Technical Data

PC Board pattern (component side)

Material

Housing :

For Right angle version:

PPS, glass reinforced, UL94V-0

For FPC / FCC :

housing color: Brown (with cable-lock: Black)

slider color : Black (with cable-lock: Brown)

For CIC :

housing color: Brown (with cable-lock: Black)

slider color : Black (with cable-lock: Brown)

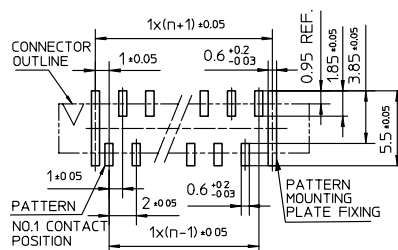
For Vertical version:

Heat-resisting Resin, glass reinforced, UL94V-0

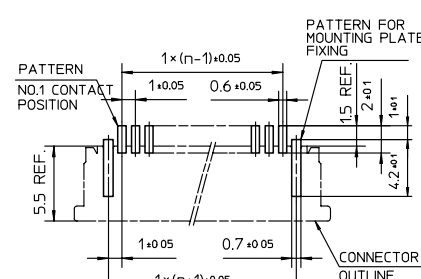
housing color: Brown; slider color : Black

Contact : Phosphor Bronze, Tin alloy plated

Straight



Right angle

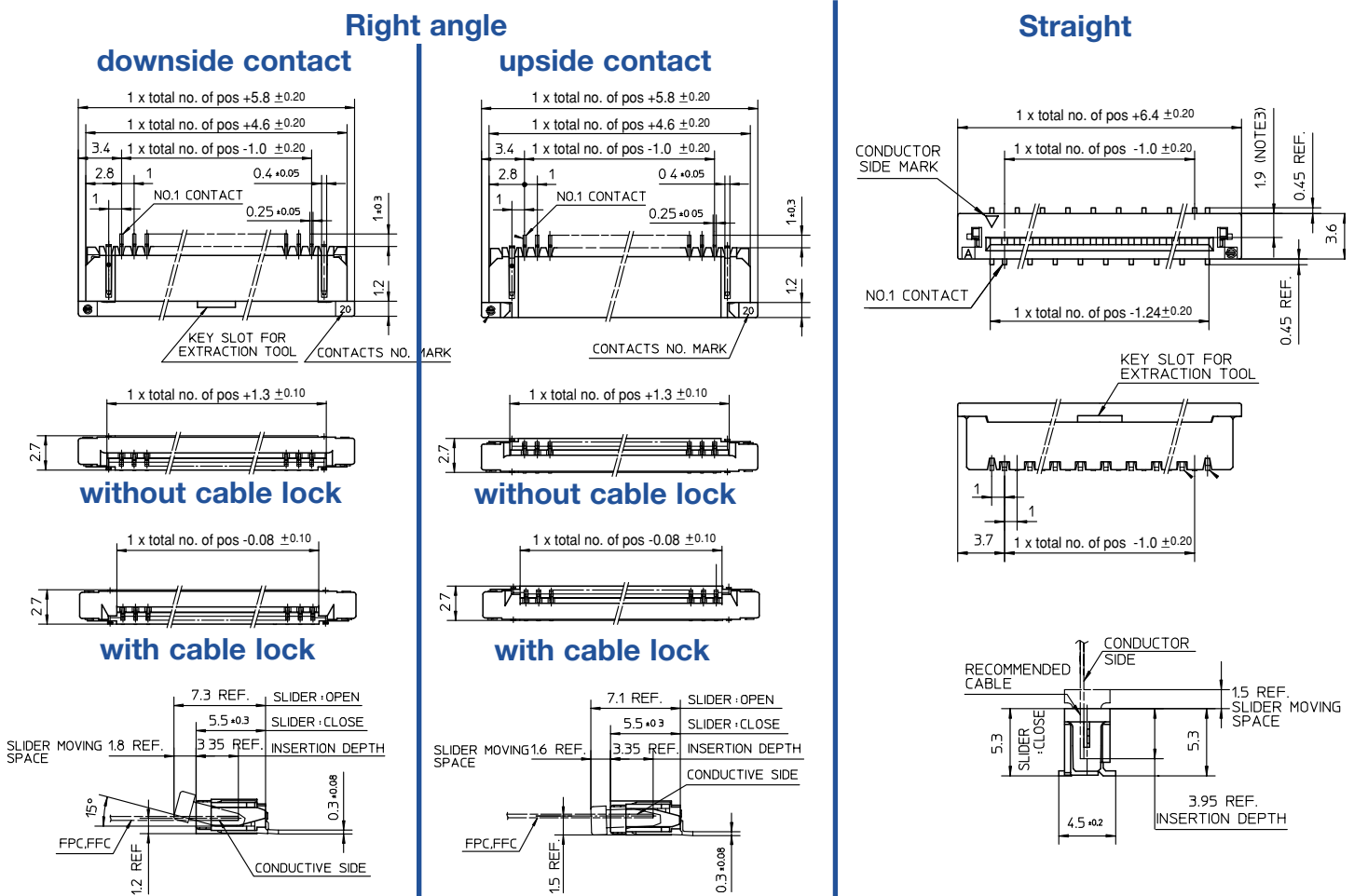


1.00 mm Spacing for FFC / FPC / CIC

Ordering Data

Series	SFW 20 R - 1 ST E1	Packaging
		Right angle tape-and-reel 2000 pcs
		Straight <tape-and-reel 1000 pcs
Number of contacts	4 to 30	
Terminal type	R = Right angle S = Straight	PCB mounting
		ST = SMT type
		STM = SMT with mounting device (top entry only)
Cable type	1 = FPC/FFC downside contact 2 = FPC/FFC upside contact 3 = FPC (with cable-lock) downside contact 4 = FPC (with cable-lock) upside contact (cable types 1, 3, 4, 5, 7, 8 for side entry only)	5 = CIC downside contact 6 = CIC upside contact 7 = CIC (with cable-lock) downside contact 8 = CIC (with cable-lock) upside contact

Dimensions

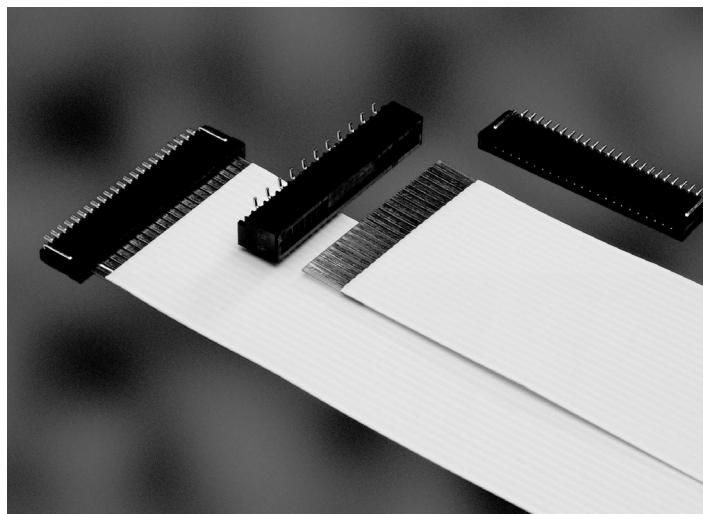


Circuitry Type For Recommended Circuitry type see page 29 and 30

1.00 mm Spacing for FFC / FPC / CIC

Features

- Available in 4 to 30 positions (right angle) and 4 to 33 positions (straight)
- Top and bottom contacts
- Optional mounting devices (straight)



Benefits

- The Gas-Tight, High pressure (GTH) contact system ensures a low cost connection with reliability equal to gold plating.
- The Low Insertion Force (LIF) contacts positioning provides a reliable and easy mating operation.
- Fork shaped contacts mean stable and low contact resistance.
- Optional mounting devices provide PCB hold-down and strain relief for SMT tails, highly desirable for lower positions.

Technical Data

PC Board pattern (component side)

Material

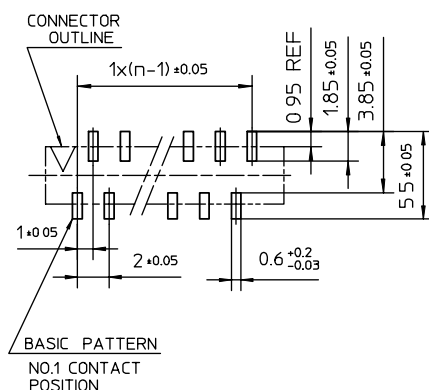
Housing :

Polyamide 6T,
glass reinforced, UL94V-0, Black

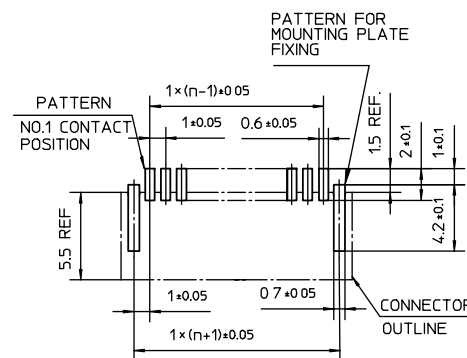
Contact :

Phosphor Bronze, Tin alloy plated

Straight



Right angle



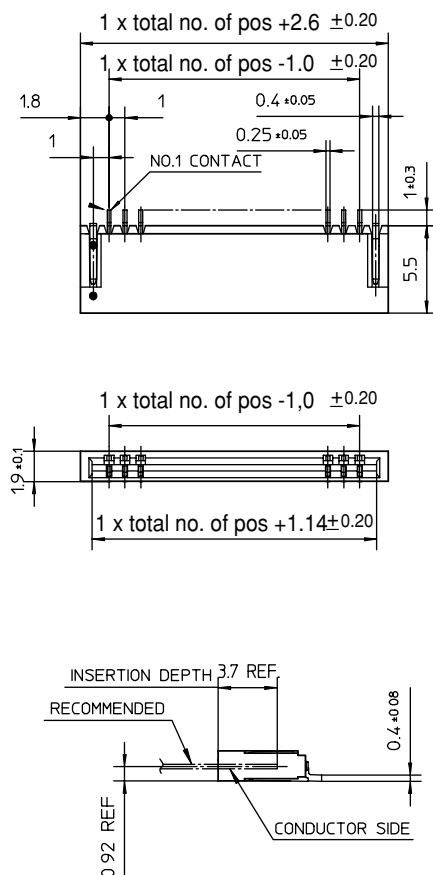
1.00 mm Spacing for FFC / FPC / CIC

Ordering Data

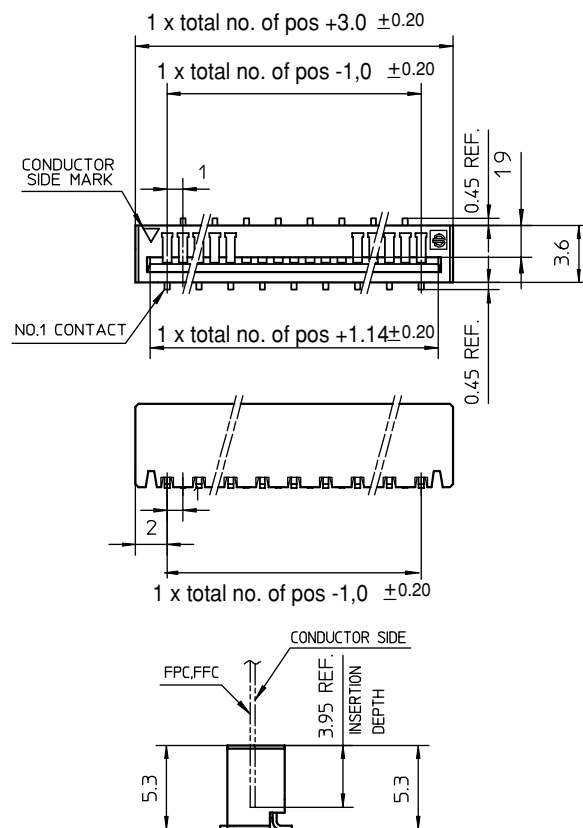
Series	HFW 20 R - 1 ST E1				
No of contacts	4 to 33 (Straight) 4 to 30 (Right angle)			Packaging	Right angle tape-and-reel 2000 pcs Straight tape-and-reel 1000 pcs
Terminal type	R = Right angle S = Straight			PCB mounting	ST = SMT type
Cable type	2 = FPC/FFC (Straight) 6 = CIC (Straight) 1 = FPC/FFC downside contact (Right angle) 2 = FPC/FFC upside contact (Right angle)				

Dimensions

Right angle



Straight

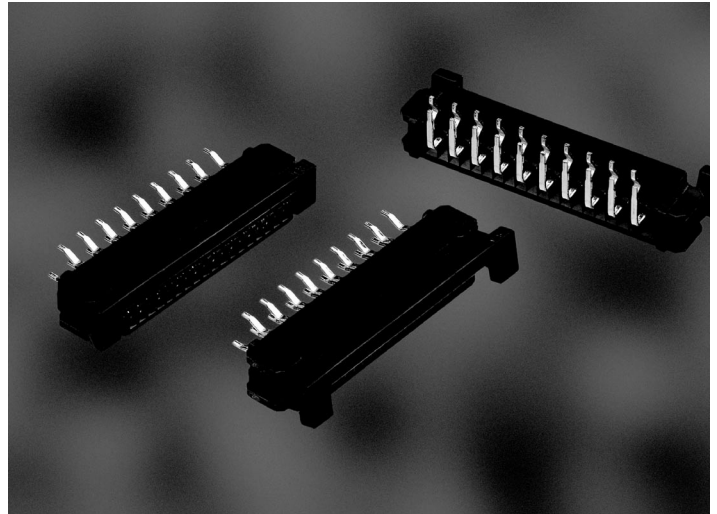


Circuitry Type For Recommended Circuitry type see page 30

1.00 mm Spacing for FFC / FPC / CIC

Features

- Available in 4 to 30 positions
- Right angle or vertical type
- Excellent cable retention with small size slider
- Kinked solder tails available



Benefits

- The Gas-Tight, High pressure (GTH) contact system ensures a low cost connection with reliability equal to gold plating.
- The Zero Insertion Force connection allows an increased number of mating cycles with minimal wear.
- The ZIF pre-holding process provides a stable and reliable mating operation.
- The slider ensures maximum cable retention with a minimum size.
- Fork shaped contacts mean stable and low contact resistance.
- Kinked solder tails provide added PCB retention.
- Product variations cover a broad range of applications.

Technical Data

PC Board pattern (component side)

Material

Housing :

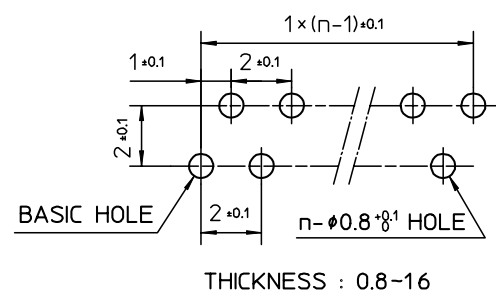
Nylon, glass reinforced, UL94V-0, Black

Slider :

Nylon, glass reinforced, UL94V-0, Black
(For CIC : Milky-White)

Contact :

Phosphor Bronze, Tin alloy plated



1.00 mm Spacing for FFC / FPC / CIC

Ordering Data

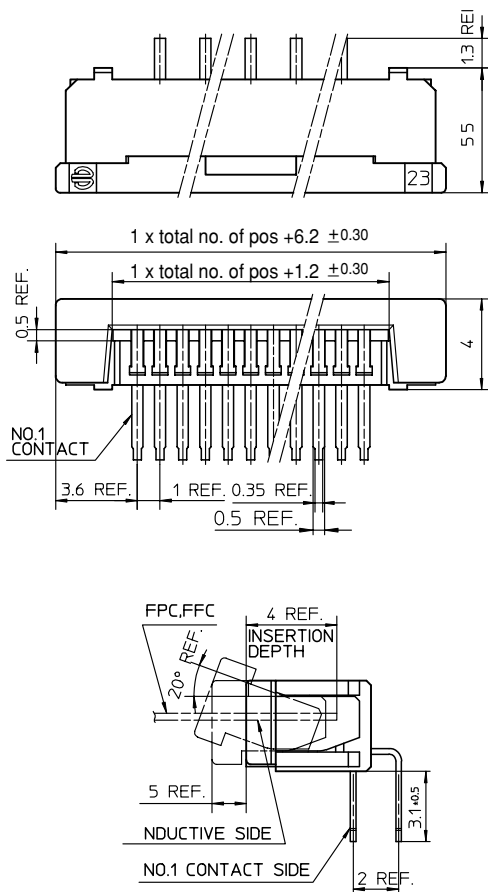
Series	SLW 25 S - 1 C7
No of contacts	4 to 30
Terminal type	R = Right angle S = Straight
Cable type	1 = FPC/FFC 5 = CIC

Variation A7 = non-kinked terminal
C7 = kinked terminal

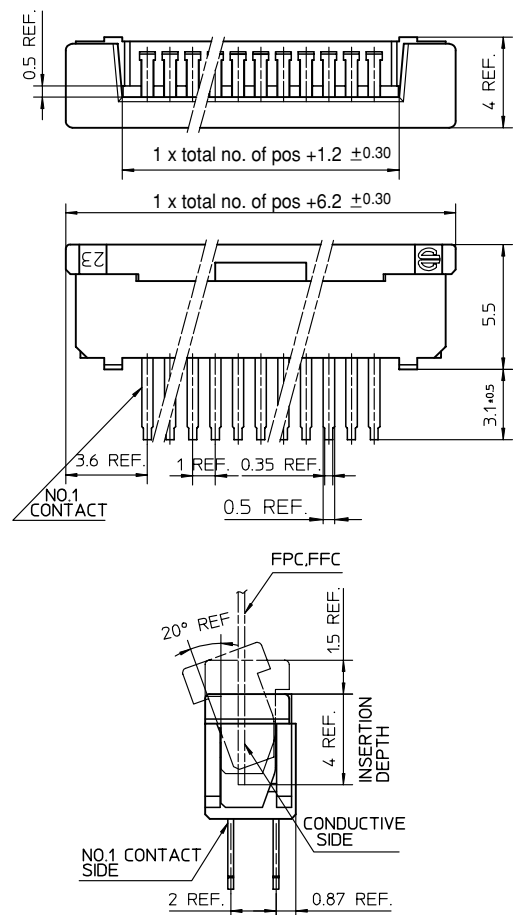
Tray packaging

Dimensions

Right angle



Straight

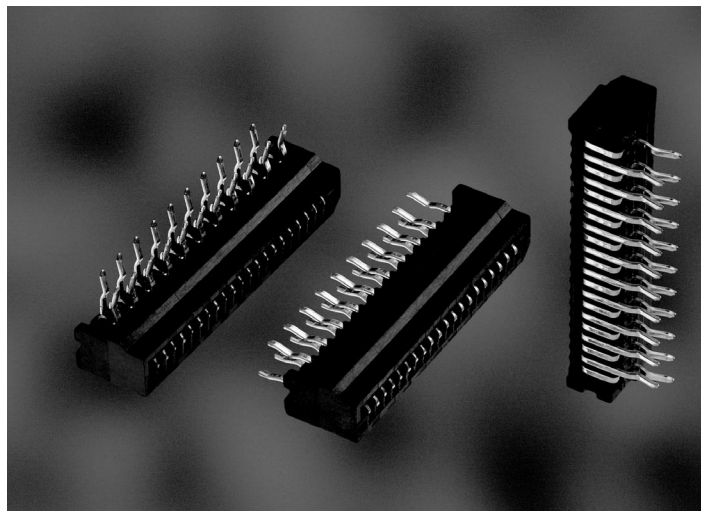


Circuitry Type For Recommended Circuitry type see page 31

1.00 mm Spacing for FFC / FPC / CIC

Features

- Available in 4 to 32 positions
- Right angle and vertical type
- Kinked solder tails available



Benefits

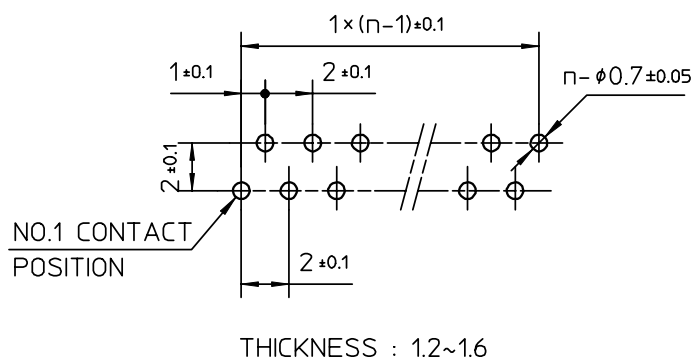
- The Gas-Tight, High pressure (GTH) contact system ensures a low cost connection with reliability equal to gold plating.
- The Low Insertion Force (LIF) contacts positioning provides a reliable and easy mating operation.
- Fork shaped contacts mean stable and low contact resistance.
- Kinked solder tails provide added PCB retention.

Technical Data

PC Board pattern (component side)

Material

Housing : PBT, glass reinforced, UL94V-0, Black
Contact : Phosphor Bronze, Tin alloy plated



1.00 mm Spacing for FFC / FPC / CIC

Ordering Data

Series **HLW 10 R - 2 C 7**

No of contacts 4 to 32

Terminal type R = Right angle
S = Straight

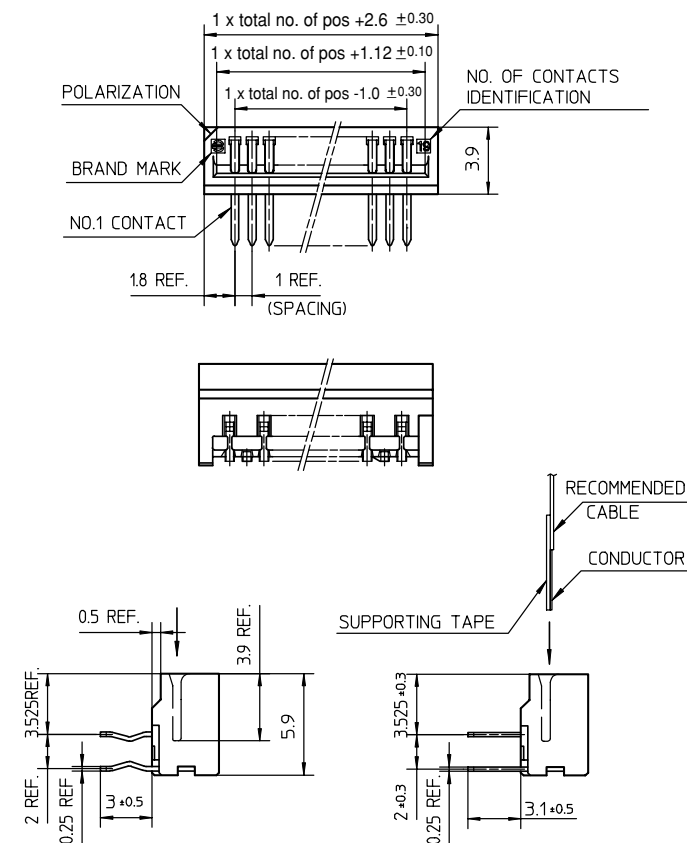
Cable type 2 = FPC/FFC
6 = CIC

Variation A7 = non-kinked terminal
C7 = kinked terminal

Tray packaging

Dimensions

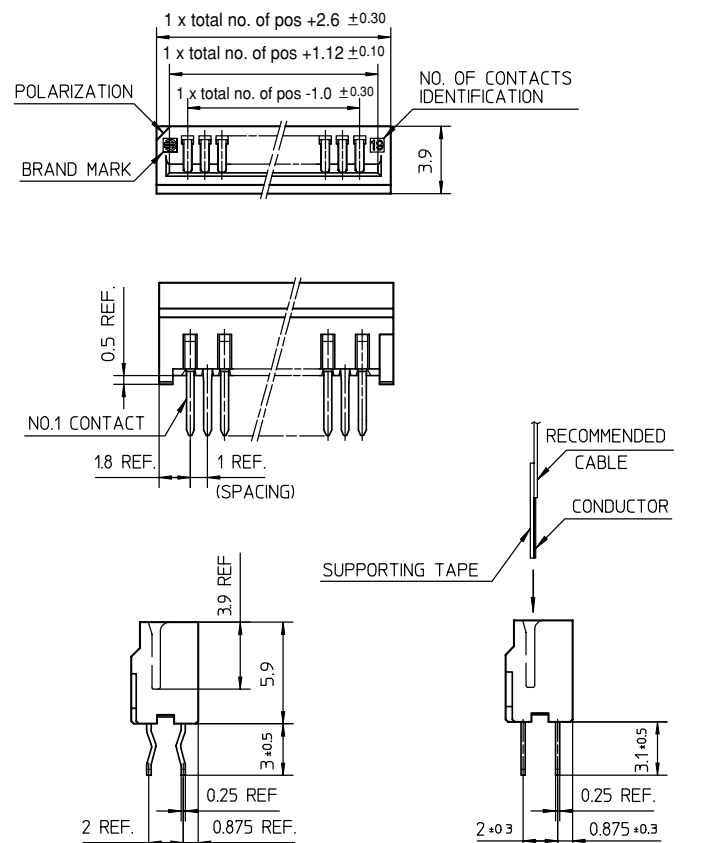
Right angle



kinked terminal

non-kinked terminal

Straight



kinked terminal

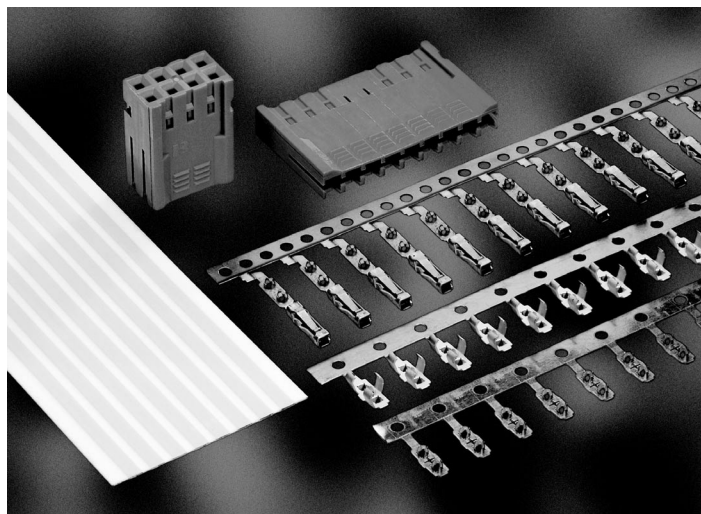
non-kinked terminal

Circuitry Type For Recommended Circuitry type see page 31

2.54 mm Spacing for FFC / FPC / CIC

Features

- Available in 2 to 36 positions per row
- Single or double row
- Gold or tin plated option
- Gas tight
- Highly reliable Insulation Displacement Contact (IDC) termination technique
- Low-cost connection system
- Versatility
- Long-life contacts
- Mates with 0.62 mm square or round pins as short as 5 mm
- Dedicated application equipment



Benefits

- Ideal for large-volume users.
- Mass-termination reduces overall applied costs and time.
- Contacts fitting all housing styles ensures versatility and minimizes stock values.

Technical Data

Material

Housing : Thermoplastic Polyester, glass reinforced, UL94V-0, Blue

Contact : Phosphor Bronze, Gold-duplex or Tin alloy plated

Cable specification	
Specification:	IPC Standard FC-220C. Cables type A or B
Thickness:	0.305 ±0.025 mm(0.012±0.0001 inch) incl. insulation
Insulation material:	Mylar, Kapton or Nomex (polyester/polyamide)
Conductor Thickness:	0.076 ±0.013 mm (0.003±0.0005 inch), 305 gr/m ² 0.127 ±0.013 mm (0.005±0.0005 inch), 610 gr/m ²
Conductor width:	1.57 ± 0.07 mm (0.062±0.003 inch)
Conductor pitch:	2.54 ±0.05 mm (0.100±0.002 inch)
Thickness for non standard cable:	0.11 - 0.35 mm (0.004 - 0.013 inch)
Mating pin:	0.64 mm square (0.025 inch), min. 5.00 mm(0.196 inch) length
Cable specification and application data sheet TA 338 and TA 333 on request	

2.54 mm Spacing for FFC / FPC / CIC

Ordering Data

Housing

5 digit partnumber - 0 02

67013 = single row housing

66987 = double row housing

Number of contacts per row = 02 to 36

Contact

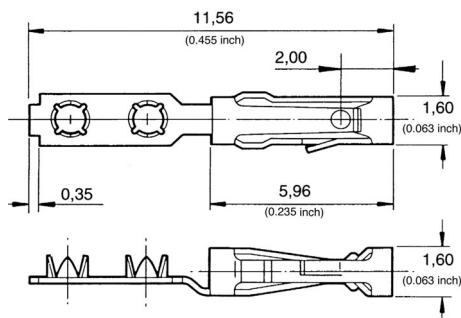
76785 - 3 01

Packaging 01 = 15000 per cardboard reel
11 = 3000 per cardboard reel

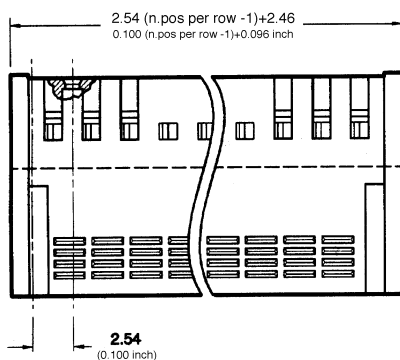
Plating 3 = 0.75µm gold contact area, tin-lead cable area, 0.30N min./0.60N max. insertion force
4 = 5.00µm tin-lead contact area, tin-lead cable area, 0.30N min./0.60N max. insertion force

Dimensions

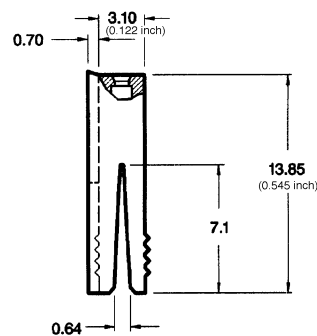
Contact



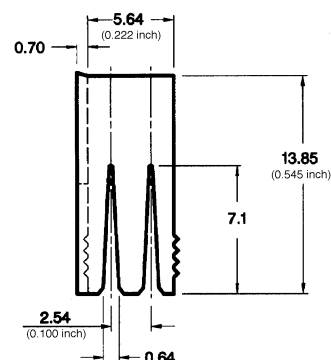
Housing



Single row



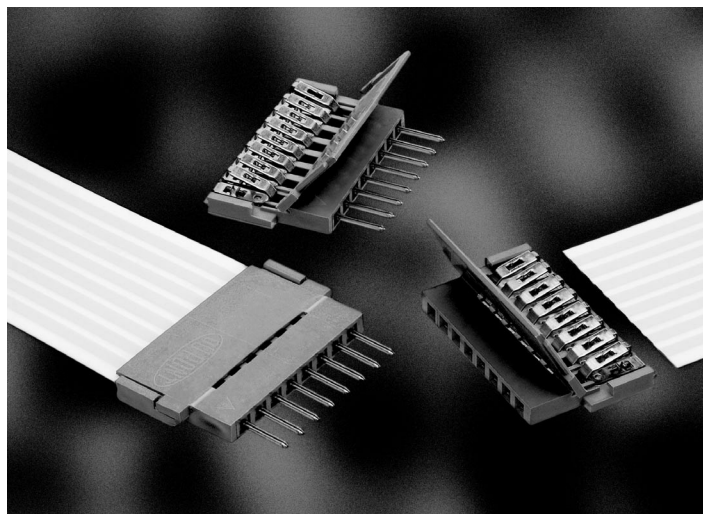
Double row



2.54 mm Spacing for FFC / FPC / CIC

Features

- Available in 2 to 32 positions
- Gas-Tight, High pressure (GTH)
- Gold and tin plated option
- Pre-assembled
- Snap-shut
- Long-life contacts
- Mates with 0.62 mm square or round pins
- Dedicated application equipment



Benefits

- Pre-assembled connectors reduce overall applied costs and ensure full contact protection.
- Snap-shut allows a single connection operation and therefore increases assembly speed.

Technical Data

Material

Housing : Polypropylene, glass reinforced, UL94V-0, Blue
Contact : brass, Gold or Tin alloy plated

Cable specification	
Specification:	IPC Standard FC-220C. Cables type A or B
Thickness:	0.305 ±0.025 mm(0.012±0.0001 inch) incl. insulation
Insulation material:	Mylar, Kapton or Nomex (polyester/polyamide)
Conductor Thickness:	0.076 ±0.013 mm (0.003±0.0005 inch), 305 gr/m ² 0.127 ±0.013 mm (0.005±0.0005 inch), 610 gr/m ²
Conductor width:	1.57 ± 0.07 mm (0.062±0.003 inch)
Conductor pitch:	2.54 ±0.05 mm (0.100±0.002 inch)
Thickness for non standard cable:	0.11 - 0.35 mm (0.004 - 0.013 inch)
Mating pin:	0.64 mm square (0.025 inch), min. 5.00 mm(0.196 inch) length
Cable specification and application data sheet TA 264, TA 371 and TA 372 on request	

2.54 mm Spacing for FFC / FPC / CIC

Ordering Data

Series

5 digit partnumber - 0 02

65801 = receptacle assembly

66226 = pin assembly

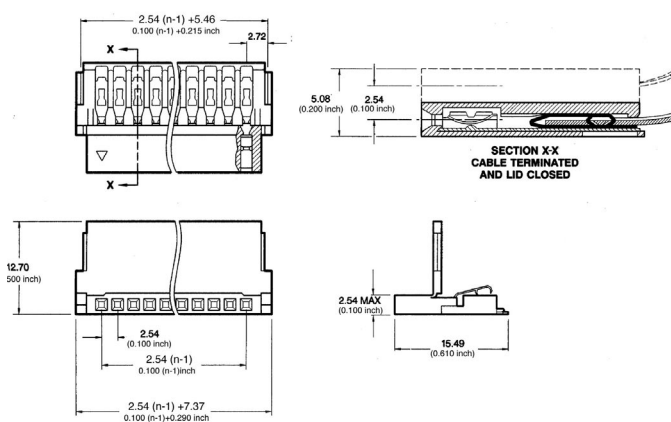
Number of positions see table

0 = standard version

1 = for Thin film circuits (0.15 mm max. thickness) Receptacle only

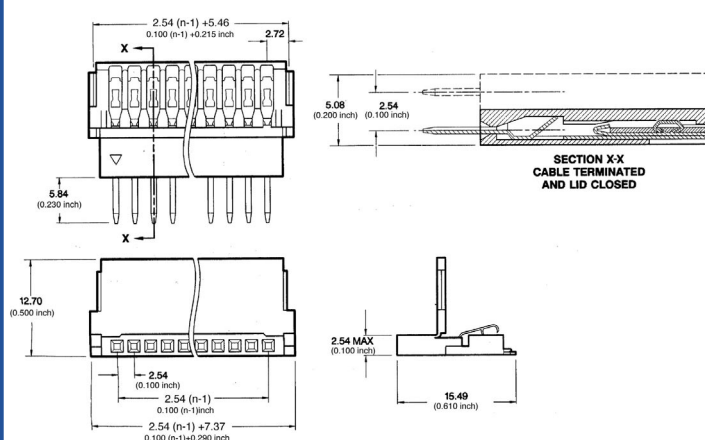
Dimensions

Receptacle assembly



Gold plated		Tin plated	
code	positions	code	positions
63	= 2 pos.	02	= 2 pos.
62	= 3 pos.	03	= 3 pos.
33	= 4 pos.	04	= 4 pos.
34	= 5 pos.	05	= 5 pos.
35	= 6 pos.	06	= 6 pos.
36	= 7 pos.	07	= 7 pos.
37	= 8 pos.	08	= 8 pos.
38	= 9 pos.	09	= 9 pos.
39	= 10 pos.	10	= 10 pos.
40	= 11 pos.	11	= 11 pos.
41	= 12 pos.	12	= 12 pos.
42	= 13 pos.	13	= 13 pos.
43	= 14 pos.	14	= 14 pos.
44	= 15 pos.	15	= 15 pos.
45	= 16 pos.	16	= 16 pos.
46	= 17 pos.	17	= 17 pos.
47	= 18 pos.	18	= 18 pos.
48	= 19 pos.	19	= 19 pos.
49	= 20 pos.	20	= 20 pos.
50	= 21 pos.	21	= 21 pos.
51	= 22 pos.	22	= 22 pos.
52	= 23 pos.	23	= 23 pos.
53	= 24 pos.	24	= 24 pos.
54	= 25 pos.	25	= 25 pos.
55	= 26 pos.	26	= 26 pos.
56	= 27 pos.	27	= 27 pos.
57	= 28 pos.	28	= 28 pos.
58	= 29 pos.	29	= 29 pos.
59	= 30 pos.	30	= 30 pos.
60	= 31 pos.	31	= 31 pos.
61	= 32 pos.	32	= 32 pos.
66	= 34 pos.	64	= 34 pos.

Pin assembly



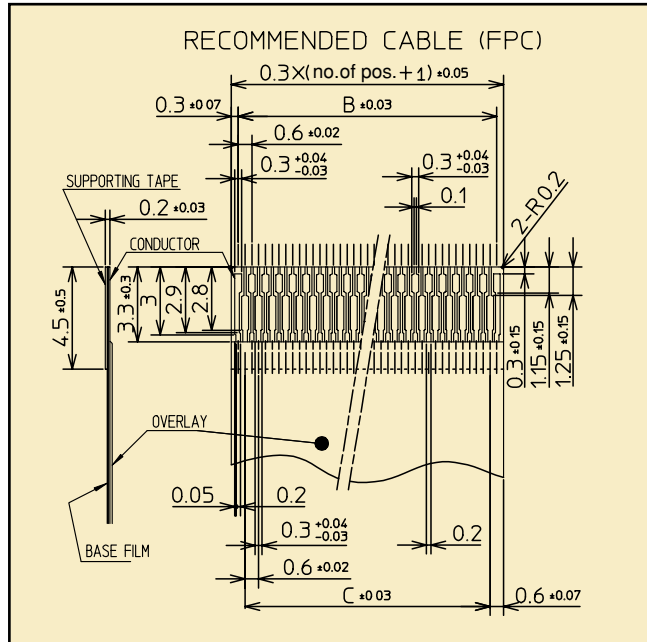
Gold plated		Tin plated	
code	positions	code	positions
34	= 2 pos.	02	= 2 pos.
35	= 3 pos.	03	= 3 pos.
36	= 4 pos.	04	= 4 pos.
37	= 5 pos.	05	= 5 pos.
38	= 6 pos.	06	= 6 pos.
39	= 7 pos.	07	= 7 pos.
40	= 8 pos.	08	= 8 pos.
41	= 9 pos.	09	= 9 pos.
42	= 10 pos.	10	= 10 pos.
43	= 11 pos.	11	= 11 pos.
44	= 12 pos.	12	= 12 pos.
45	= 13 pos.	13	= 13 pos.
46	= 14 pos.	14	= 14 pos.
47	= 15 pos.	15	= 15 pos.
48	= 16 pos.	16	= 16 pos.
49	= 17 pos.	17	= 17 pos.
50	= 18 pos.	18	= 18 pos.
51	= 19 pos.	19	= 19 pos.
52	= 20 pos.	20	= 20 pos.
53	= 21 pos.	21	= 21 pos.
54	= 22 pos.	22	= 22 pos.
55	= 23 pos.	23	= 23 pos.
56	= 24 pos.	24	= 24 pos.
57	= 25 pos.	25	= 25 pos.
58	= 26 pos.	26	= 26 pos.
59	= 27 pos.	27	= 27 pos.
60	= 28 pos.	28	= 28 pos.
61	= 29 pos.	29	= 29 pos.
62	= 30 pos.	30	= 30 pos.
63	= 31 pos.	31	= 31 pos.
64	= 32 pos.	32	= 32 pos.

Circuitry lay-outs

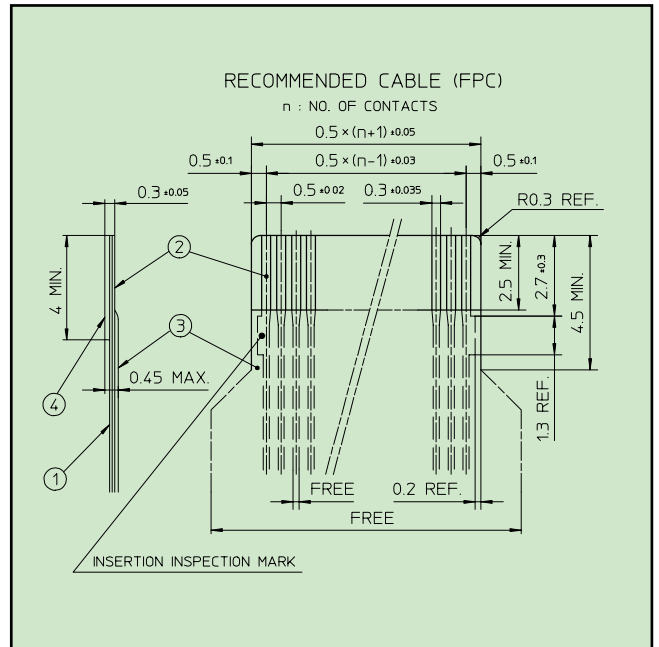
Bill of Material		
Flexible Printed Circuit (FPC)		
Number	Description	Material
①	Base Film	Polyamide or Polyester or Equivalent
②	Conductor	Copper Foil (Solder Plated 1 µm min.)
③	Overlay	Polyamide or Polyester or Equivalent
④	Supporting Tape	Polyamide or Polyester or Equivalent
Flexible Flexible Cable (FFC)		
Number	Description	Material
①	Insulation	Flame Resistant Polyester or Equivalent
②	Conductor	Copper Foil (Tin or Solder Plated 1 µm min.)
③	Supporting Tape	Flame Resistant Polyester or Equivalent
Conductive Ink Circuit (CIC)		
Number	Description	Material
①	Base Film	Polyester or Equivalent
②	Conductor	Carbon Paste over Silver Paste
③	Overlay	Polyamide or Polyester or Equivalent
④	Supporting Tape	Polyamide or Polyester or Equivalent

Circuitry lay-outs

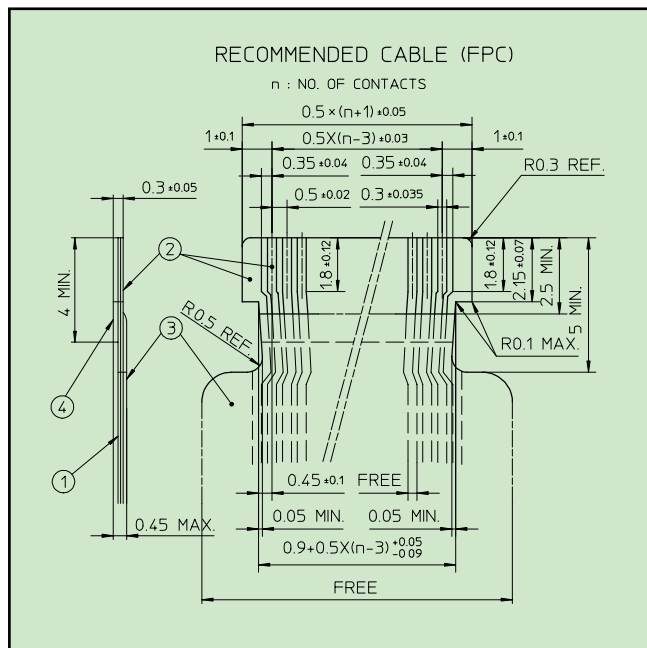
FPC for 62789 Series



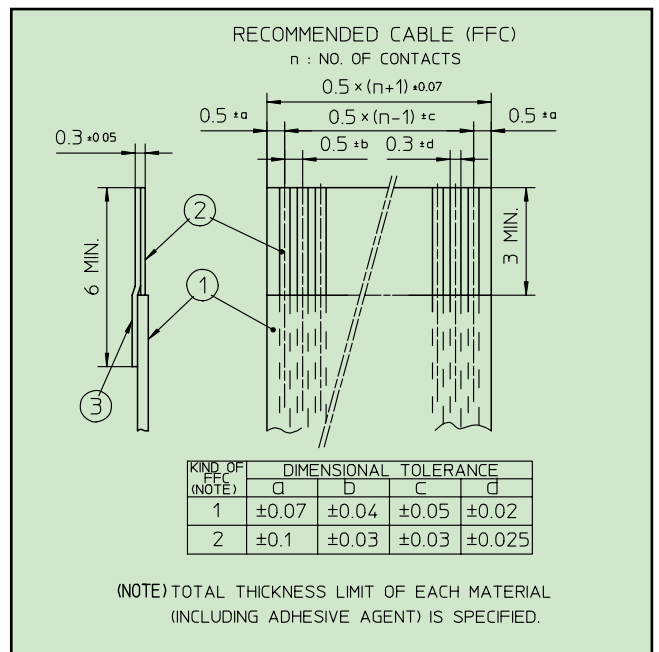
FPC for 62674 Series



FPC cable lock for 62674 Series



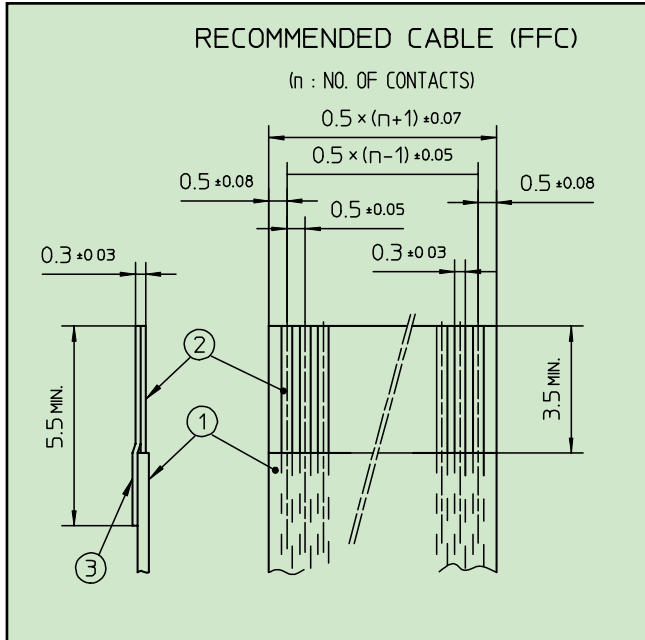
FPC for 62674 Series



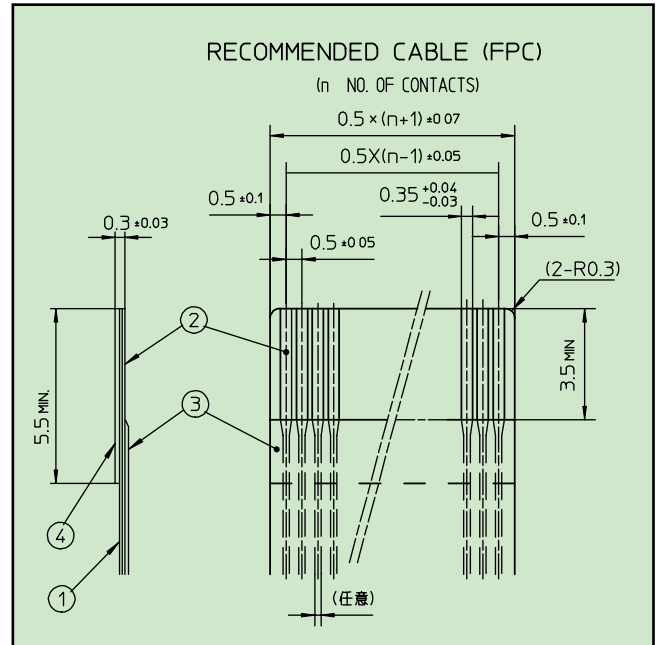
○ = for circled number description, please see page 26

Circuitry lay-outs

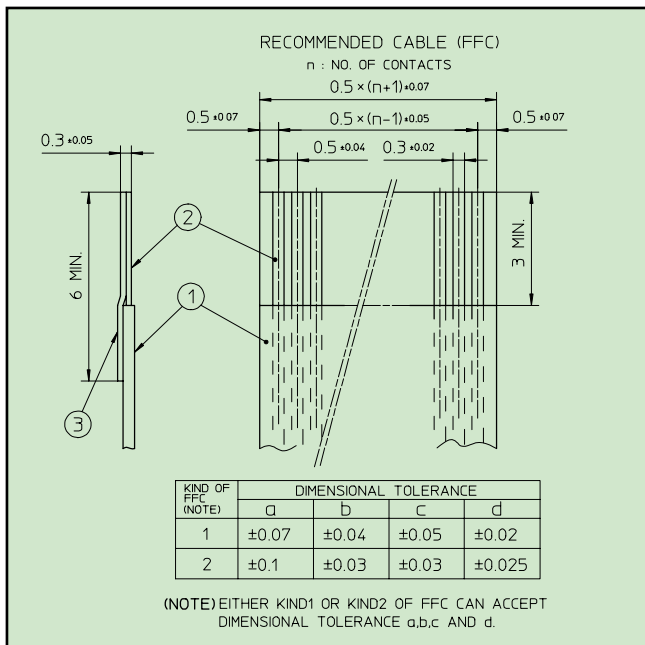
FFC for 62684 Series



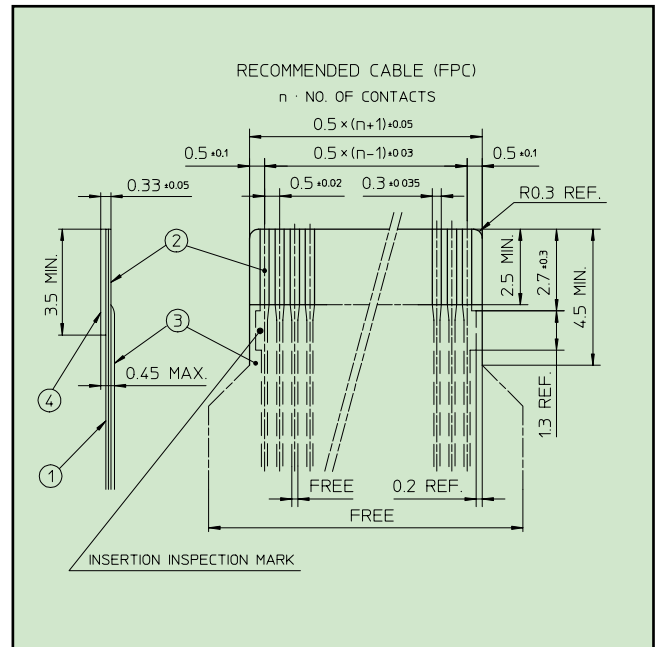
FPC for 62684 Series



FFC for SFV Series



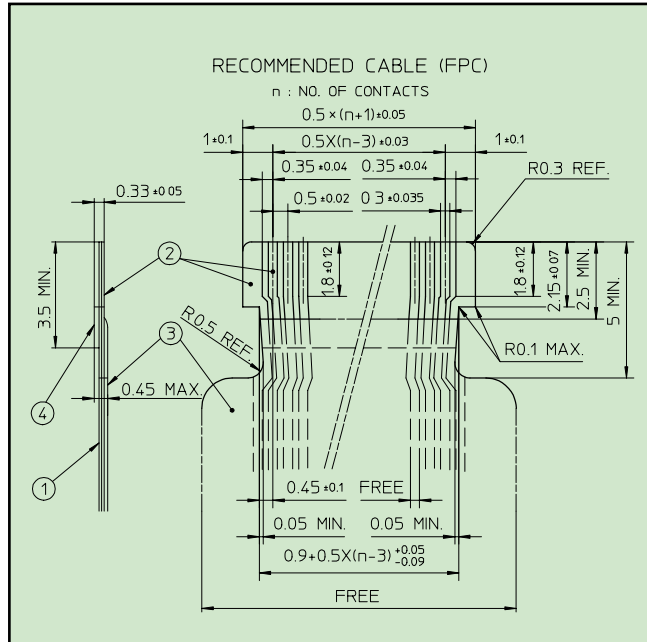
FPC for SFV Series



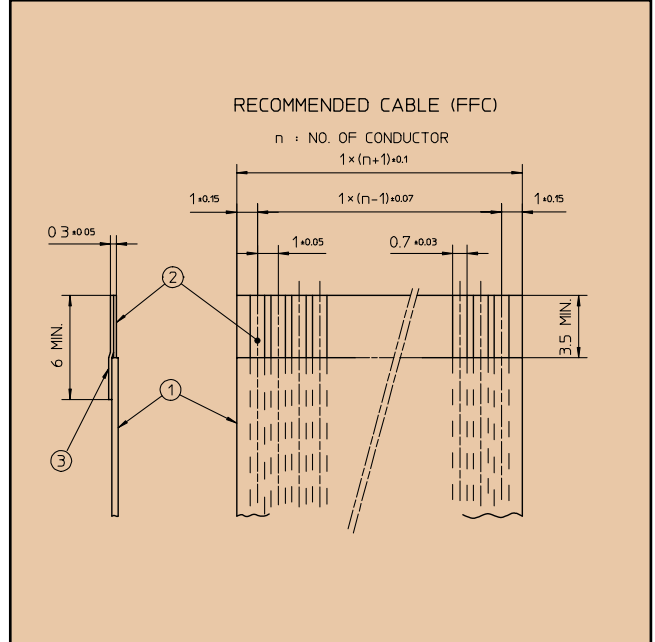
○ = for circled number description, please see page 26

Circuitry lay-outs

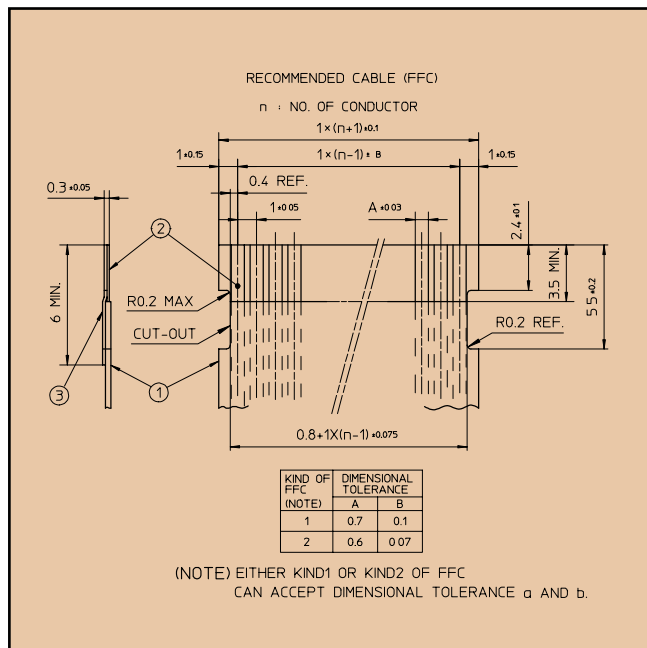
FPC cable lock for SFV Series



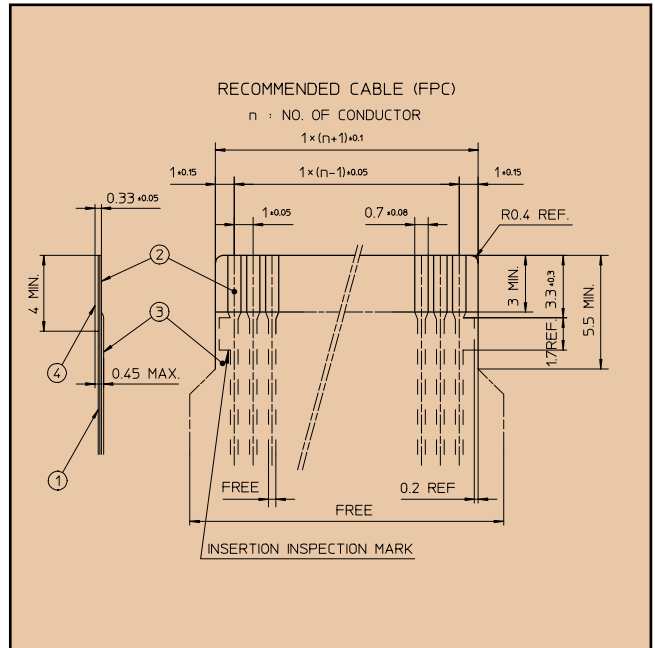
FFC for SFV Series



FFC cable lock for SFV Series



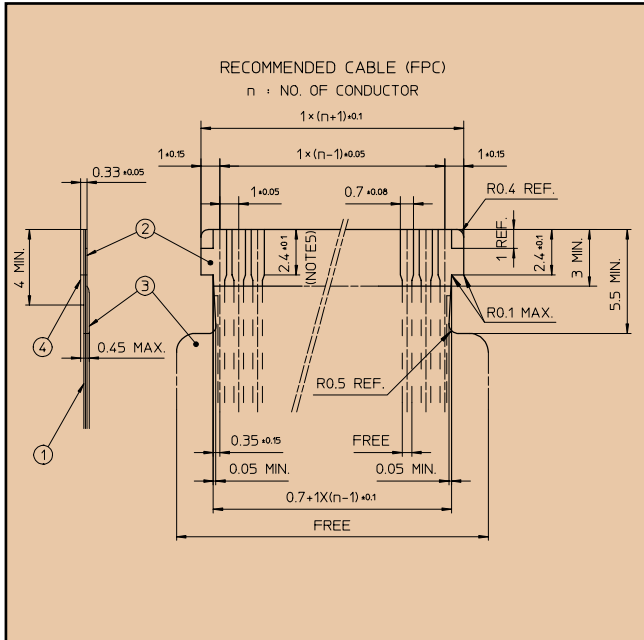
FPC for SFV Series



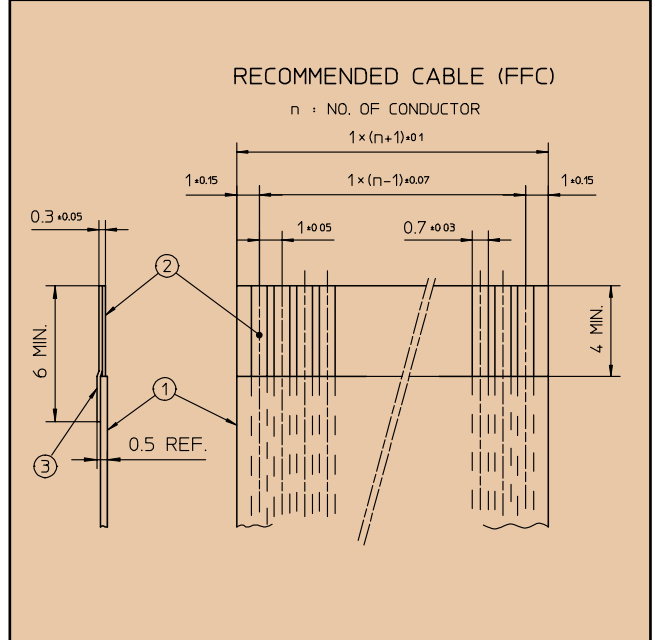
○ = for circled number description, please see page 26

Circuitry lay-outs

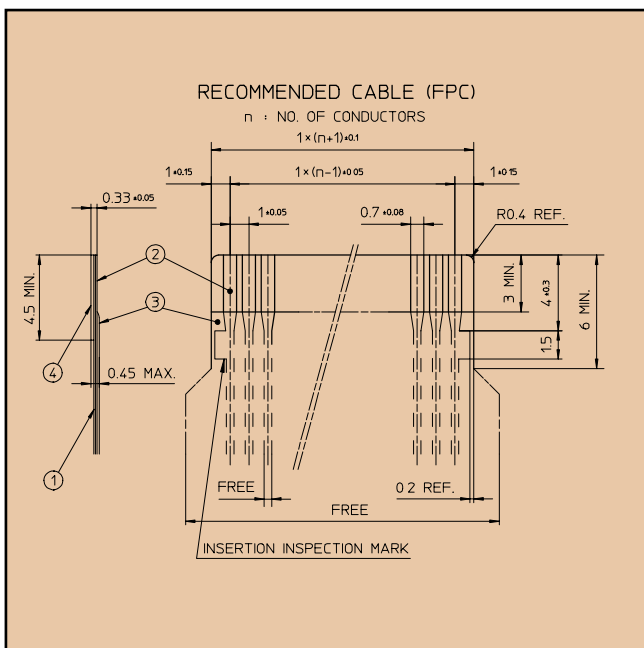
FPC cable lock for SFW Series



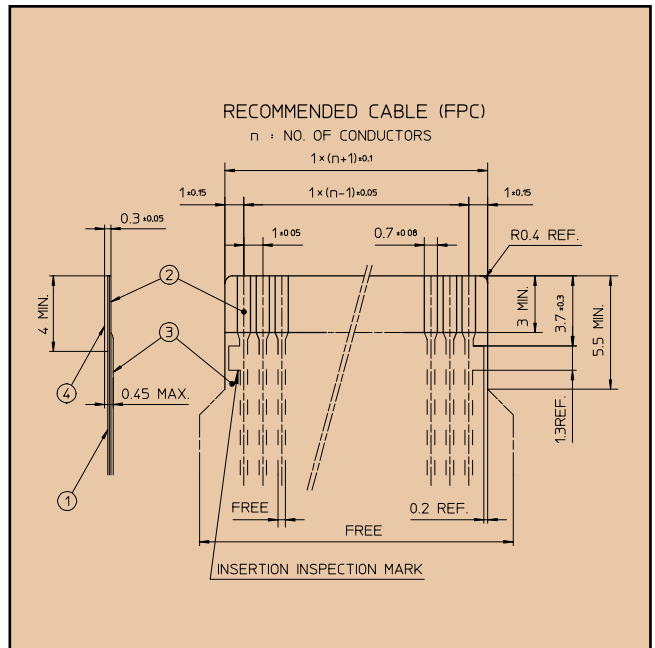
FFC for HFW straight Series



FPC for HFW straight Series



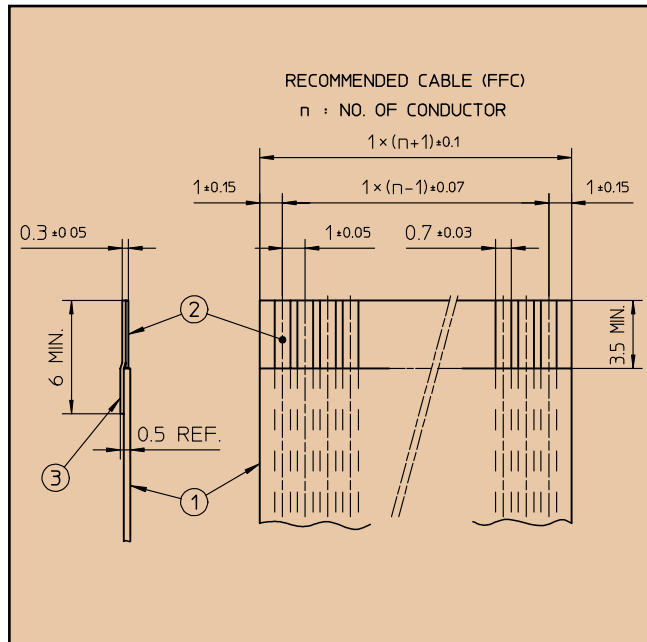
FPC for HFW RA Series



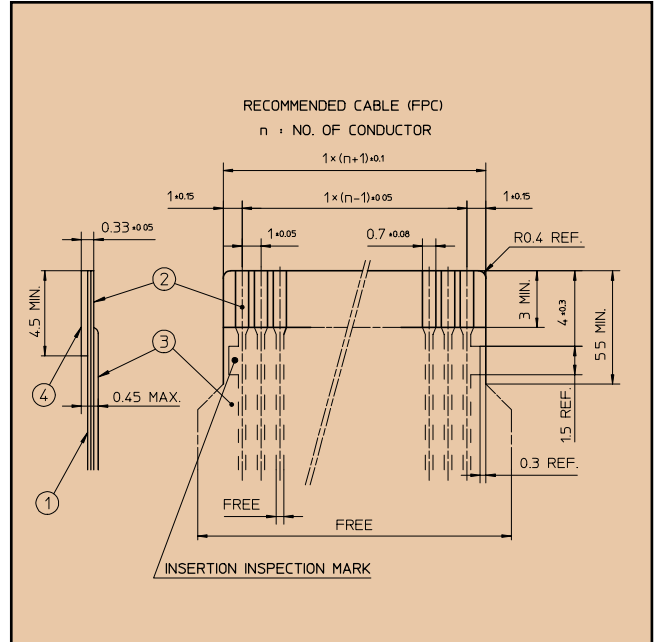
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Circuitry lay-outs

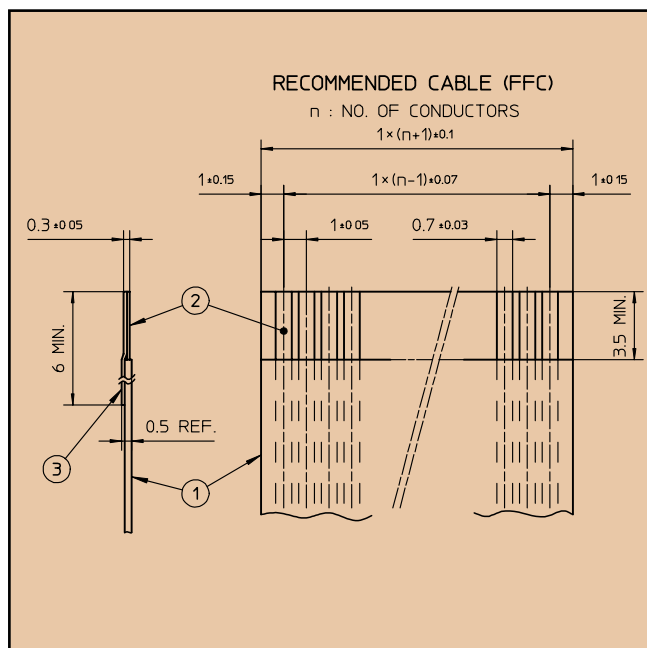
FFC for SLW Series



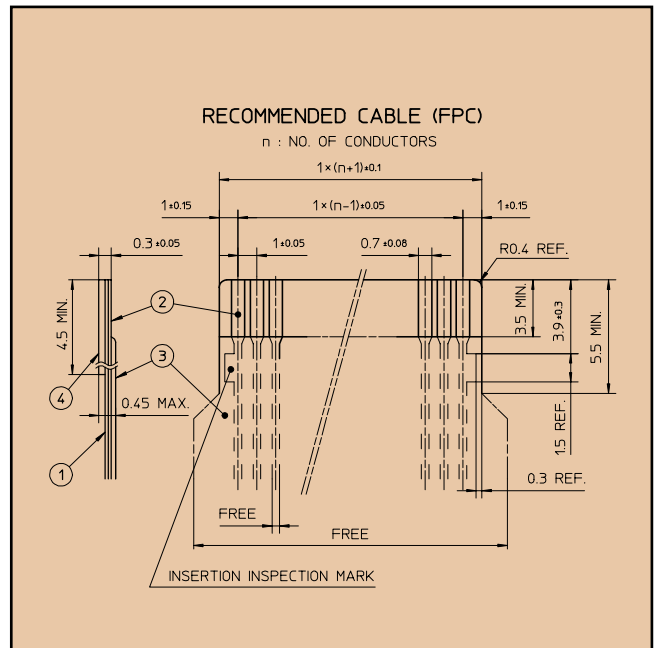
FPC for SLW Series



FFC for HLW Series



FPC for HLW Series



○ = for circled number description, please see page 26

Performance characteristics

Spacing	0.30 mm	0.50 mm	1.00 mm	2.54 mm
Circuitry	FPC	FFC / FPC	FFC / FPC / CIC	
Series	62789	62674 62684 SFV	SFW HFW SLW HLW	DUFLEX CLINCHER
Electrical				
Current Rating	0.5A	0.5A	1A	2A
Rated Voltage (AC/DC)	50V	50V	100V	500V
Contact Resistance (initial)	30mΩ max.	30mΩ max.	30mΩ max.	30mΩ max.
Insulation Resistance	100MΩ min.	100MΩ min.	500MΩ min.	5000MΩ min.
Dielectric withstanding Voltage	AC 200VAC 200V	AC 500V	AC 1000V	
Mechanical				
Durability		Contact resistance : 50mΩ max.		
Cycle	20	20	20 30 20 30	30
Vibration		per JIS C 0040	No discontinuity greater than 1μ second	
Environmental				
Salt Spray		per JIS C 0023	Contact Resistance 50mΩ max.	
Damp Heat		per JIS C 0022	Contact Resistance 50mΩ max.	
(steady state)			Insulation Resistance 100mΩ min.	
Change of Temperature		per JIS C 0025	Contact Resistance 50mΩ max.	
Operating temperature Range			-55°C to +85°C	

Series at a glance

Series	Pitch	Cable Type	ZIF / LIF	Soldering	Number of Positions
62789	0.30 mm	FPC	ZIF	SMT	27,33,39,45,51,57
62674	0.50 mm	FFC/FPC	ZIF	SMT	12,20,24,25,30
62684	0.50 mm	FFC/FPC	ZIF	SMT	32,34,40,45,50
SFV	0.50 mm	FFC/FPC	ZIF	SMT	4 to 35
SFR	0.80 mm	FFC/FPC/CIC	ZIF	SMT	4 to 30
HFR	0.80 mm	FFC/FPC/CIC	LIF	SMT	4 to 30
SFW	1.00 mm	FFC/FPC/CIC	ZIF	SMT	4 to 30
HFW	1.00 mm	FFC/FPC/CIC	LIF	SMT	4 to 30
SLW	1.00 mm	FFC/FPC/CIC	ZIF	DIP	4 to 30
HLW	1.00 mm	FFC/FPC/CIC	LIF	DIP	4 to 32
SFD	1.25 mm	FFC/FPC/CIC	ZIF	SMT	4,6,21,26
SLD	1.25 mm	FFC/FPC/CIC	ZIF	DIP	4 to 40
SLP	1.25 mm	FFC/FPC/CIC	ZIF	DIP	4 to 20
SLEM	1.25 mm	FFC/FPC	ZIF	DIP	4 to 30
HLEM	1.25 mm	FFC/FPC/CIC	LIF	DIP	3 to 40
Clincher	2.54 mm	FFC/FPC/CIC	-	-	2 to 32
Duflex	2.54 mm	FFC/FPC/CIC	-	-	2 to 72

Notes

Notes

AREVA, the world leader in nuclear power and connectors, is present in more than 30 countries. The group's employees provide customers with a full range of products and services for electricity generation and develop connector products and interconnect systems mainly for the communications, data and automotive markets.

AREVA brings expertise and technologies for better living to meet the challenges of the 21st century: generalized access to energy and information, preservation of the planet, and responsible stewardship of resources for future generations.

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