

**INTRODUCTION:**

Adam Tech HFCS Series .050" IDC Sockets are low profile, precision designed flat cable sockets that feature either .050" x .100" centerlines or .050" x .050" centerlines. These sockets quickly and easily mass terminate flat cable in one simple step. Their versatility allows them to mate with a multitude of .050" pitch pin headers. Our superior selectively gold plated contact design provides a smooth high pressure wiping action to ensure excellent continuity. They are used with a single layer of .025" flat cable. Their small size, light weight and high density make them ideal for compact and limited space applications.

**FEATURES:**

- .050" x .050" or .050" x .100"
- Low Profile and High Density
- Uses Single layer .025" Flat Cable
- Quickly and easily mass terminates standard Flat Cable
- Smooth High Pressure Wiping Contacts

**MATING CONNECTORS:**

Adam Tech .050" HBHR series box headers or HPH2 series pin headers

**SPECIFICATIONS:**

**Material:**

Insulator: PBT, glass reinforced, rated UL94V-0  
 Insulator Color: Black  
 Contacts: Phosphor Bronze

**Contact Plating:**

Tin over copper underplate overall

**Electrical:**

Operating voltage: 250V AC max.  
 Current rating: 1 Amp max.  
 Contact resistance: 20 mΩ max. Initial  
 Insulation resistance: 5000 MΩ min.  
 Dielectric withstanding voltage: 1000V AC for 1 minute

**Mechanical:**

Insertion force: 0.312 lbs per contact max.  
 Withdrawal force: 0.094 lbs per contact min.  
 Recommended wire size: 28 Awg stranded  
 Cable retention: 22 lbs. min axial force per inch.  
 Mating durability: 500 cycles min.

**Temperature Rating:**

Operating temperature: -40°C to +105°C

**PACKAGING:**

Anti-ESD plastic trays

**SAFETY AGENCY APPROVALS:**

UL Recognized File No. E224053  
 CSA Certified File No. LR1578596



**ORDERING INFORMATION**



**SERIES INDICATOR**

- \***HFCS** = Low profile .050" x .100" IDC Socket for single layer .025" Flat Cable
- \***HFCS-A** = Low profile .050" x .050" IDC Socket for single layer .025" Flat Cable
- \*\***HFDP** = .050" Paddleboard Connector for single layer .025" Flat Cable
- \*\***FDH** = 4 Row Transition plug

**PLATING**

- SG** = Selective gold plating in contact area, nickel plating in termination area
- T** = Tin plated (HFDP)

**POSITIONS**

- HFCS:** 10, 20, 30, 40, 50, 60, 70, 80, 90, 100
- HFCS-A:** 10, 20, 26, 34, 40, 50
- HFDP:** 30, 50, 68, 72, 80, 100
- FDH:** 10, 14, 16, 20, 26, 34, 40, 50, 60

\* Denotes RoHS compliant lead-free product  
 \*\* Requires -RC option below to be RoHS compliant

**OPTIONS**

Add designator(s) to end of part number  
**RC** = RoHS compliant lead-free product with Hi-Temp insulator

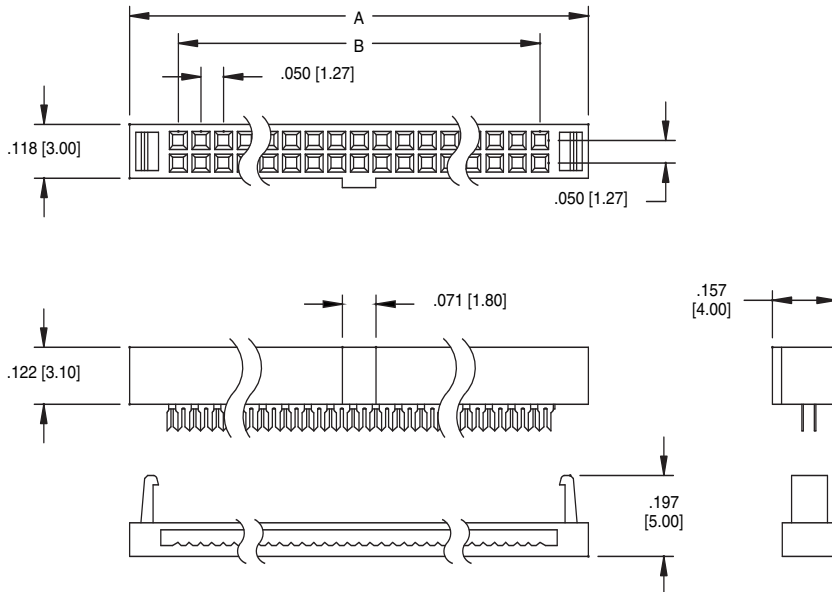
## .050" IDC SOCKET

.050" X .050" & .050" X .100"  
DUAL ROW FLAT CABLE SOCKETS  
HFCS SERIES

HFCS-A  
.050" X .050"



HFCS-A-34-SG

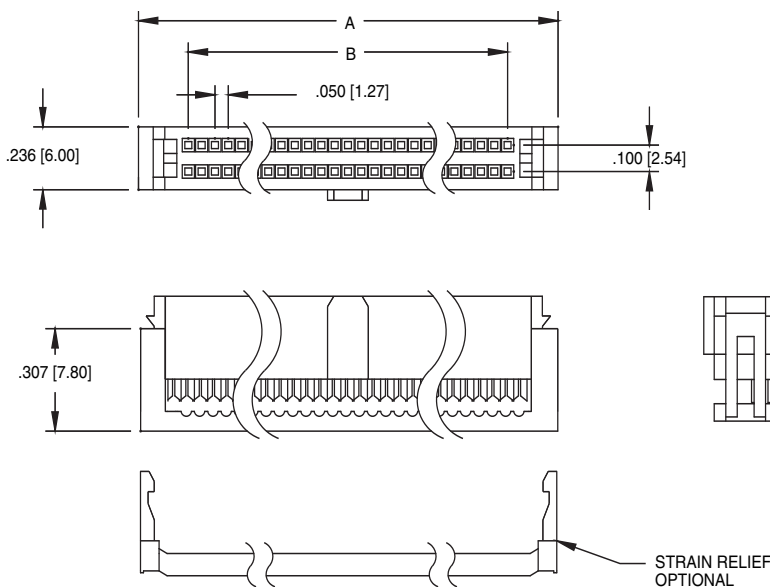


PART No. & POSITIONS	DIMENSIONS	
	A	B
HFCS-A-10	.413 [10.50]	.450 [5.08]
HFCS-A-20	.665 [16.90]	.450 [11.43]
HFCS-A-26	.815 [20.70]	.600 [15.24]
HFCS-A-34	1.016 [25.80]	.800 [20.32]
HFCS-A-40	1.165 [29.60]	.950 [24.13]
HFCS-A-50	1.413 [35.90]	1.200 [30.48]

HFCS  
.050" X .100"



HFCS-40-SG



PART No. & POSITIONS	Dimensions	
	A	B
HFCS-10	0.200 (11.10)	0.437 ( 5.08)
HFCS-20	0.450 (17.45)	0.687 (11.43)
HFCS-30	0.700 (23.80)	0.937 (17.78)
HFCS-40	0.950 (30.15)	1.187 (24.13)
HFCS-50	1.200 (36.50)	1.437 (30.48)
HFCS-60	1.450 (42.85)	1.687 (36.83)
HFCS-70	1.700 (49.20)	1.937 (43.18)
HFCS-80	1.950 (55.55)	2.187 (49.53)
HFCS-90	2.200 (61.90)	2.437 (55.88)
HFCS-100	2.450 (68.25)	2.687 (62.23)

**INTRODUCTION:**

Adam Tech FCS Series .100" IDC Sockets are extremely popular, low profile, precision designed flat cable sockets that feature .100" pin to pin and row to row centerlines. These sockets quickly and easily mass terminate flat cable in one simple step. Their versatility allows them to mate with a multitude of .025" sq. post pin headers. Our superior selectively gold plated contact design provides a smooth high pressure wiping action to ensure excellent continuity. They are used with a single layer of .050" flat cable. Their small size, light weight, low cost and high density make them ideal for use in many applications.

**FEATURES:**

- Choice of Single or Dual beam contact design
- Low Profile and High Density
- Uses Single layer .050" standard Flat Cable
- Quickly and easily mass terminates Flat Cable
- Smooth High Pressure Wiping Contacts

**MATING CONNECTORS:**

Adam Tech .100" BHR series box headers and PH2 series pin headers

**SPECIFICATIONS:**

**Material:**

Insulator: PBT, glass reinforced, rated UL94V-0  
 Insulator Color: Black  
 Contacts: Phosphor Bronze

**Contact Plating:**

Gold flash (30u" optional) over nickel underplate on contact area, tin over copper underplate on IDC area

**Electrical:**

Operating voltage: 250V AC max.  
 Current rating: 1 Amp max.  
 Contact resistance: 30 mΩ max. initial  
 Insulation resistance: 1000 MΩ min.  
 Dielectric withstanding voltage: 500V AC for 1 minute

**Mechanical:**

Insertion force: FCS-D2: 0.5 lbs per contact max.  
 Withdrawal force: FCS-D2: 0.094 lbs per contact min.  
 Recommended wire size: 28 Awg stranded  
 Cable retention: 28 lbs. min axial force per inch.  
 Mating durability: 500 cycles min.

**Temperature Rating:**

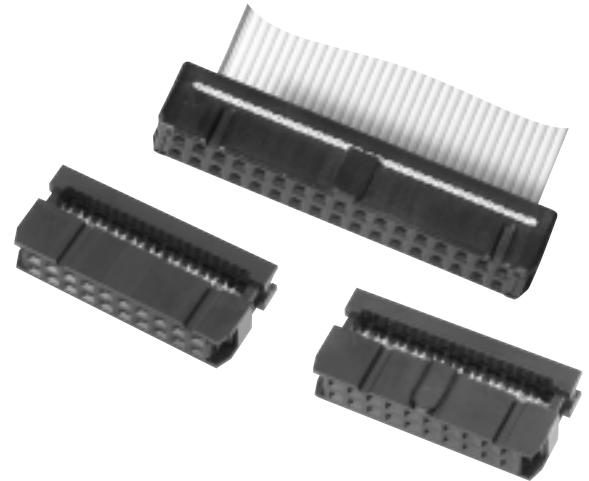
Operating temperature: -40°C to +105°C

**PACKAGING:**

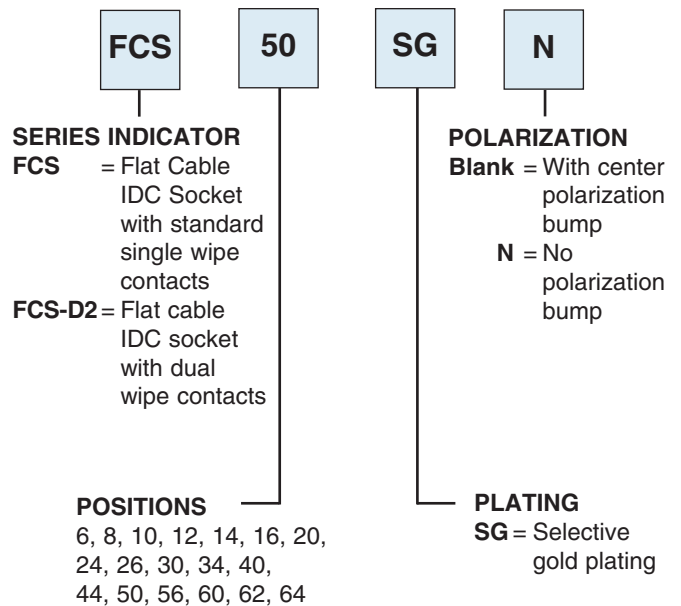
Anti-ESD plastic trays

**SAFETY AGENCY APPROVALS:**

UL Recognized File No. E224053  
 CSA Certified File No. LR1578596



**ORDERING INFORMATION**



**Note:** Mating box headers for this series located on page 221

**STRAIN RELIEF:**

**FSR** - (No. of Positions)

**PULL TABS:**

**PT** - (No. of positions)

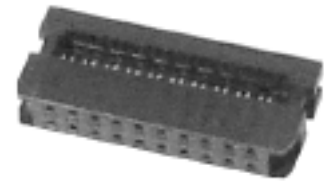
**KEYING PLUGS:**

**FCS-K** (Key plugs can also be molded into connector, consult factory)

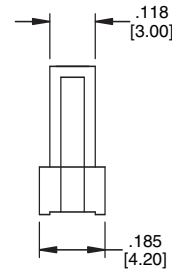
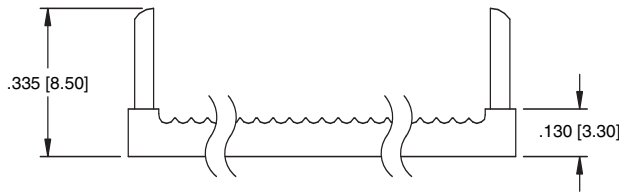
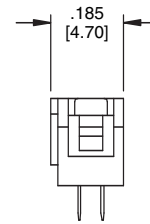
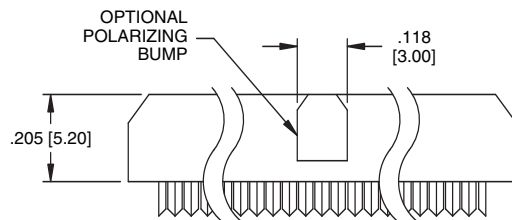
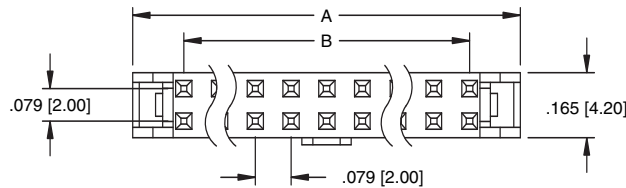
**OPTIONS:**

- Add designator(s) to end of part number
- 30** = 30 μin gold in contact area
- GY** = Gray color insulator

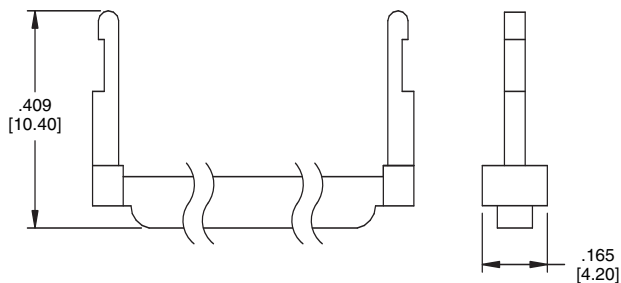
2FCS



2FCS-20-SG



2FCS STRAIN RELIEF: 2FSR-XX (XX = NO. OF POSITIONS)



PART No. & POSITIONS	DIMENSIONS	
	A	B
2FCS-20	.992 [25.10]	.709 [18.00]
2FCS-22	1.071 [27.20]	.787 [20.00]
2FCS-24	1.150 [29.20]	.866 [22.00]
2FCS-26	1.228 [31.00]	.945 [24.00]
2FCS-34	1.543 [39.20]	1.260 [32.00]
2FCS-36	1.622 [41.20]	1.339 [34.00]
2FCS-40	1.780 [45.10]	1.496 [38.00]
2FCS-44	1.937 [49.20]	1.654 [42.00]
2FCS-50	2.773 [55.10]	1.890 [48.00]
2FCS-60	2.567 [65.20]	2.283 [58.00]
2FCS-68	2.882 [73.20]	2.598 [66.00]

## INTRODUCTION:

Adam Tech 2FCS Series 2.00mm IDC Sockets are low profile, precision designed flat cable sockets that feature 2.00mm pin to pin and row to row centerlines. These sockets quickly and easily mass terminate flat cable in one simple step. Their versatility allows them to mate with a multitude of 2.00mm pin headers. Our superior selectively gold plated contact design provides a smooth high pressure wiping action to ensure excellent continuity. They are used with a single layer of .050" flat cable. Their small size, light weight and high density make them ideal for compact and limited space applications.

## FEATURES:

Low Profile and High Density  
Uses Single layer .050" Flat Cable  
Quickly and easily mass terminates standard Flat Cable

## MATING CONNECTORS:

Adam Tech 2.0mm 2BHR series box headers and 2PH series pin headers

## SPECIFICATIONS:

### Material:

Insulator: PBT, glass reinforced, rated UL94V-0  
Insulator Color: Black  
Contacts: Phosphor Bronze

### Contact Plating:

Gold flash (30u" optional) over nickel underplate on contact area, tin over copper underplate on IDC area

### Electrical:

Operating voltage: 250V AC max.  
Current rating: 1 Amp max.  
Contact resistance: 20 mΩ max. initial  
Insulation resistance: 3000 MΩ min.  
Dielectric withstanding voltage: 500V AC for 1 minute

### Mechanical:

Insertion force: 0.661 lbs per contact max.  
Withdrawal force: 0.044 lbs per contact min.  
Recommended wire size: 30 - 28 Awg stranded  
Cable retention: 24 lbs. min axial force per inch.  
Mating durability: 500 cycles min.

### Temperature Rating:

Operating temperature: -40°C to +105°C

## PACKAGING:

Anti-ESD plastic trays

## SAFETY AGENCY APPROVALS:

UL Recognized File No. E224053  
CSA Certified File No. LR1578596



## ORDERING INFORMATION

2FCS

40

SG

**SERIES INDICATOR**  
2FCS = 2.00mm  
Flat Cable  
IDC Socket

**PLATING OPTIONS**  
SG = Selectively  
Gold-Plated

**POSITIONS**  
20, 22, 24, 26, 34,  
36, 40, 44, 50, 60, 68

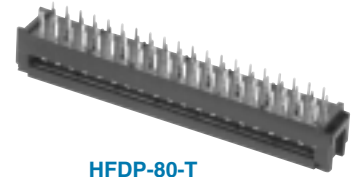
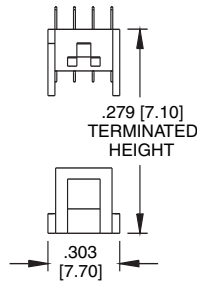
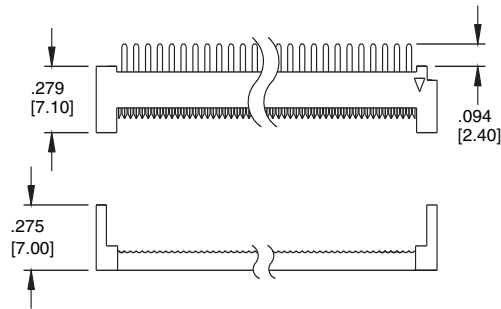
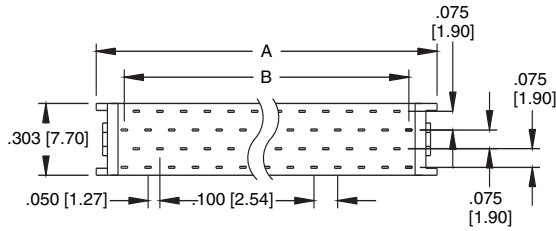
## NOTE:

Mating Box Headers for this series located on page 208

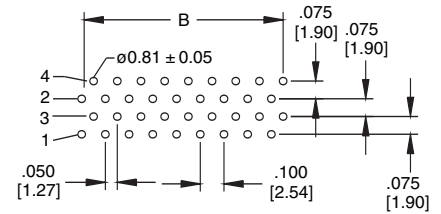
## OPTIONS:

Add designator(s) to end of part number  
30 = 30 μin gold plating in contact area  
PB = Polarizing bump

#### HFDP



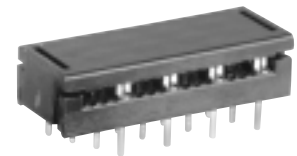
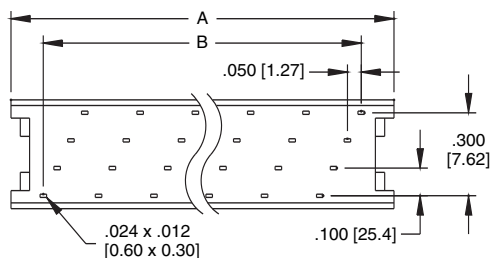
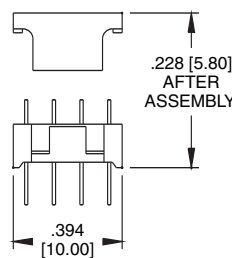
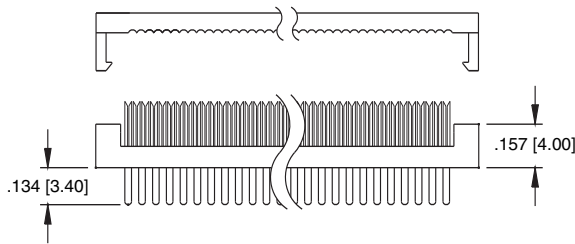
HFDP-80-T



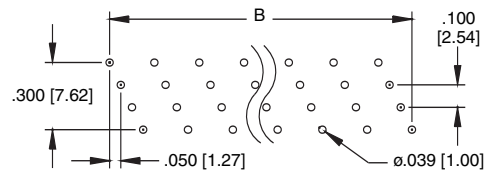
Recommended PCB Layout

Part No.	A		B	
	in	mm	in	mm
HFDP-30	0.938	23.83	0.700	17.78
HFDP-50	1.438	36.53	1.200	30.48
HFDP-68	1.888	47.96	1.650	41.91
HFDP-80	2.188	55.58	1.950	49.53
HFDP-100	2.688	68.28	2.450	62.23

#### FDH



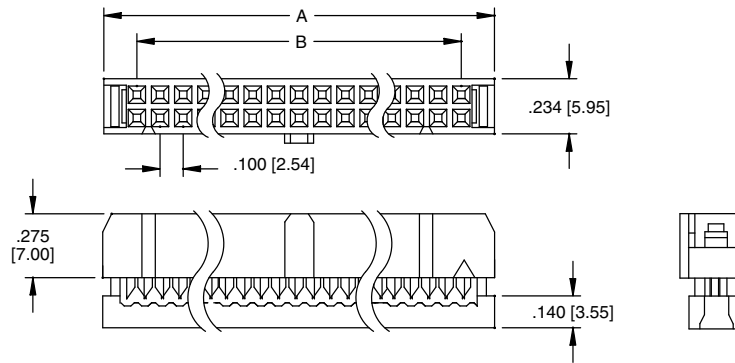
FDH-34-T



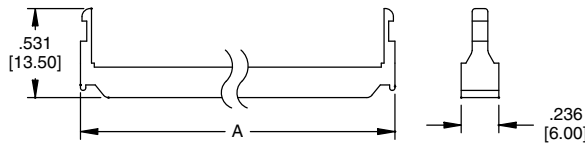
Recommended PCB Layout

Part No.	A		B	
	in	mm	in	mm
FDH-10	.689	17.50	.450	11.43
FDH-14	.889	22.58	.650	16.51
FDH-16	.989	25.12	.750	19.05
FDH-20	1.189	30.20	.950	24.13
FDH-26	1.489	37.82	1.250	31.75
FDH-34	1.889	47.98	1.650	41.91
FDH-40	2.189	55.60	1.950	49.53
FDH-50	2.689	68.30	2.450	62.23
FDH-60	3.189	81.00	2.950	74.93

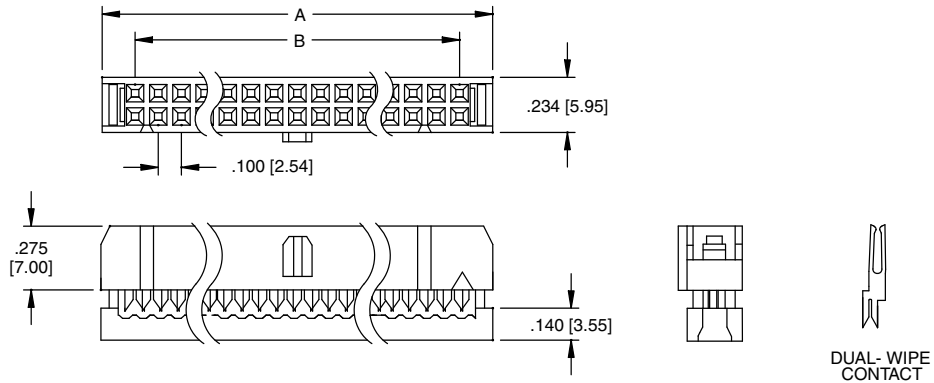
### FCS - SINGLE WIPE CONTACT



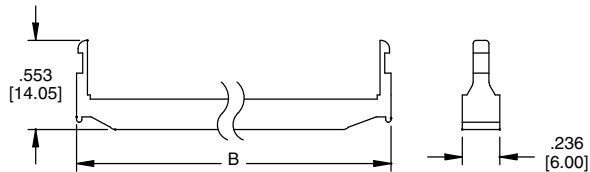
### FCS STRAIN RELIEF: FSR-XX (XX = NO. OF POSITIONS)



### FCS-D2 DUAL WIPE CONTACT



### FCS-D2 STRAIN RELIEF: FSR-D2-XX (XX = NO. OF POSITIONS)



### DIMENSIONS

POSITIONS	6	8	10	12	14	16	20	24	26	30	34	40	44	50	56	60	62	64
<b>B</b>	0.200 (5.08)	0.300 (7.62)	0.400 (10.16)	0.500 (12.70)	0.600 (15.24)	0.700 (17.78)	0.900 (22.86)	1.100 (27.94)	1.200 (30.48)	1.400 (35.56)	1.600 (40.64)	1.900 (48.26)	2.100 (53.34)	2.400 (60.96)	2.700 (68.58)	2.900 (73.66)	3.000 (76.20)	3.100 (78.74)
<b>A</b>	0.480 (12.19)	0.580 (14.73)	0.680 (17.27)	0.780 (19.81)	0.880 (22.35)	0.980 (24.89)	1.180 (29.97)	1.380 (35.05)	1.480 (37.59)	1.680 (42.67)	1.880 (47.75)	2.180 (55.37)	2.380 (60.45)	2.680 (68.07)	2.980 (75.69)	3.180 (80.77)	3.280 (83.31)	3.380 (85.85)