

#### INTRODUCTION:

Adam Tech .050" IDC Sockets and transition plugs are low profile, precision designed flat cable connectors that feature either .050" x .100" centerlines or .050" x .050" centerlines. These series quickly and easily mass terminate flat cable in one simple step. Our superior 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
- 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

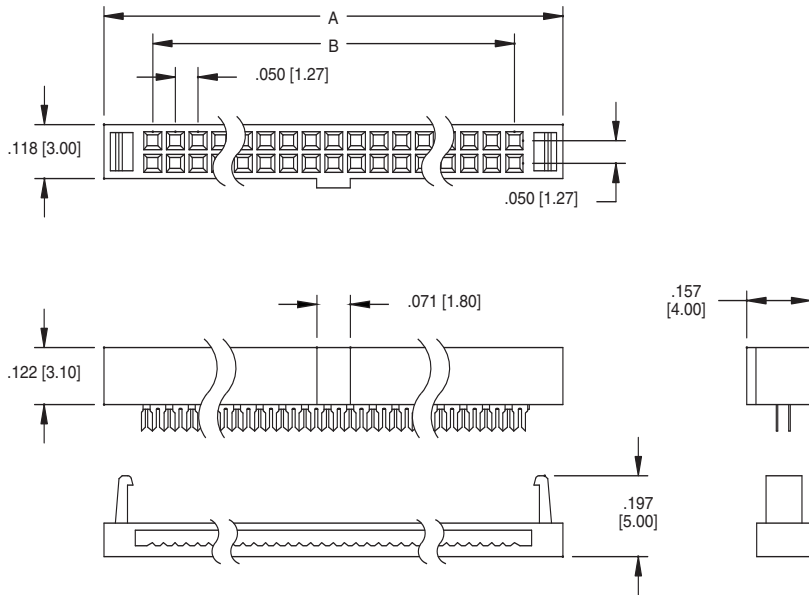
#### HFCS Strain Relief

**Part No.:**  
 HFSR - XX  
 (XX = No. of Positions)

#### OPTIONS

Add designator(s) to end of part number  
**N** = No polarization bump (HFCS series)

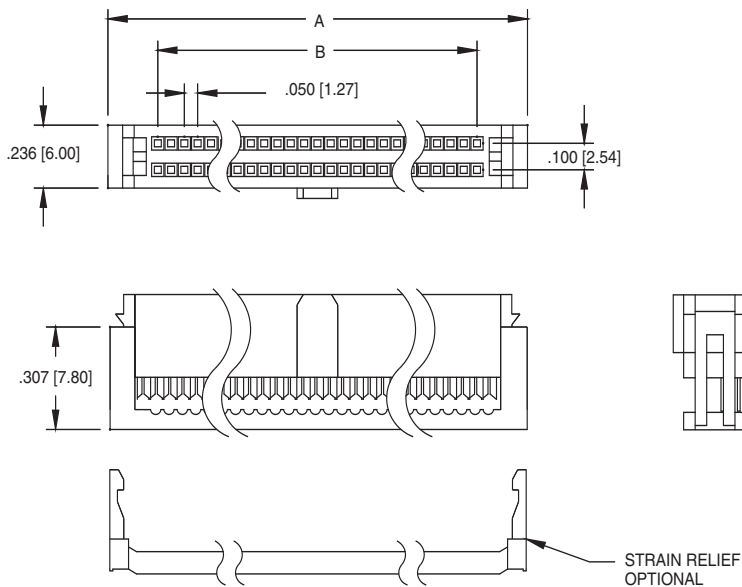
**HFCS-A**  
**.050" X .050"**



**HFCS-A-34-SG**

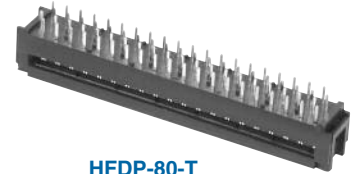
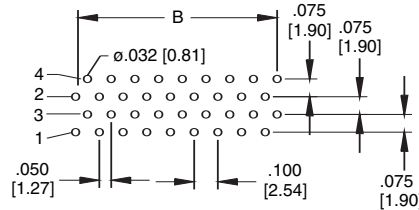
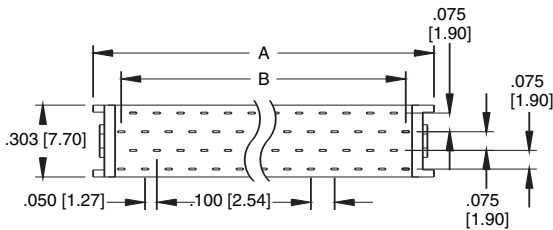
PART No. & POSITIONS	DIMENSIONS	
	A	B
HFCS-A-10	.413 [10.50]	.450 [5.08]
HFCS-A-20	.665 [16.90]	.450 [11.43]
HFCS-A-26	.815 [20.70]	.600 [15.24]
HFCS-A-34	1.016 [25.80]	.800 [20.32]
HFCS-A-40	1.165 [29.60]	.950 [24.13]
HFCS-A-50	1.413 [35.90]	1.200 [30.48]

**HFCS**  
**.050" X .100"**



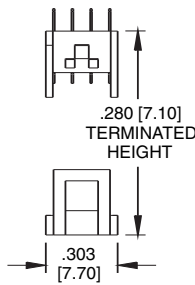
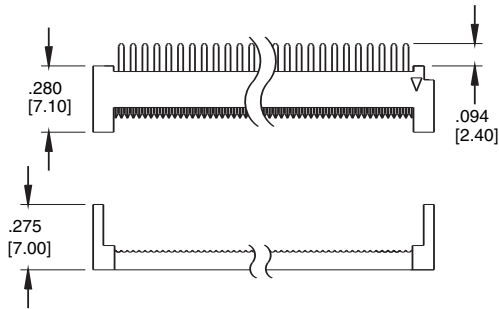
**HFCS-40-SG**

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]

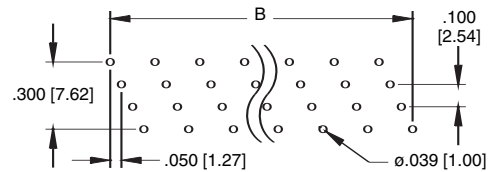
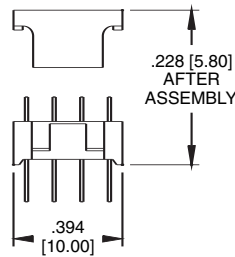
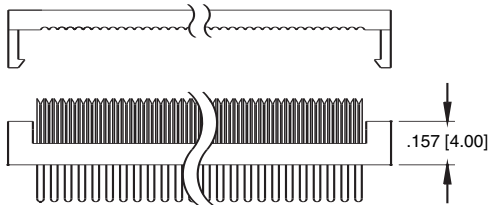


HFDP-80-T

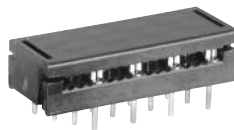
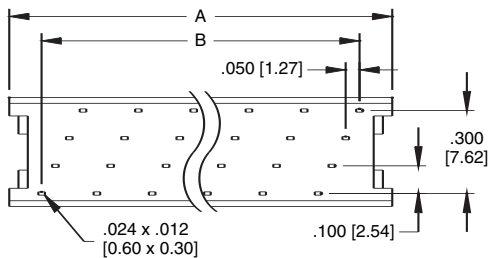
Recommended PCB Layout



Part No.	DIMENSIONS			
	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



Recommended PCB Layout



FDH-34-T

Part No.	DIMENSIONS			
	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

## 2.00mm IDC SOCKET & TRANSITION PLUG

.079" [2.00 X 2.00] CENTERLINE  
2FCS & 2FTR SERIES

### 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 1.00mm 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 1.00mm 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 (30  $\mu$ m 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 m $\Omega$  max. initial  
Insulation resistance: 3000 M $\Omega$  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

2FTR = 2.00mm  
Flat Cable  
Transition Plug

#### PLATING OPTIONS

SG = Selectively  
Gold-Plated

#### POSITIONS

##### 2FCS:

06, 08, 10, 12, 14, 16, 18, 20, 22,  
24, 26, 34, 36, 40, 44, 50, 60, 68

##### 2FTR:

08, 10, 12, 14, 16, 20, 22, 24, 26,  
30, 34, 40, 44, 50, 68

### NOTE:

Mating Box Headers for this series located on page 264

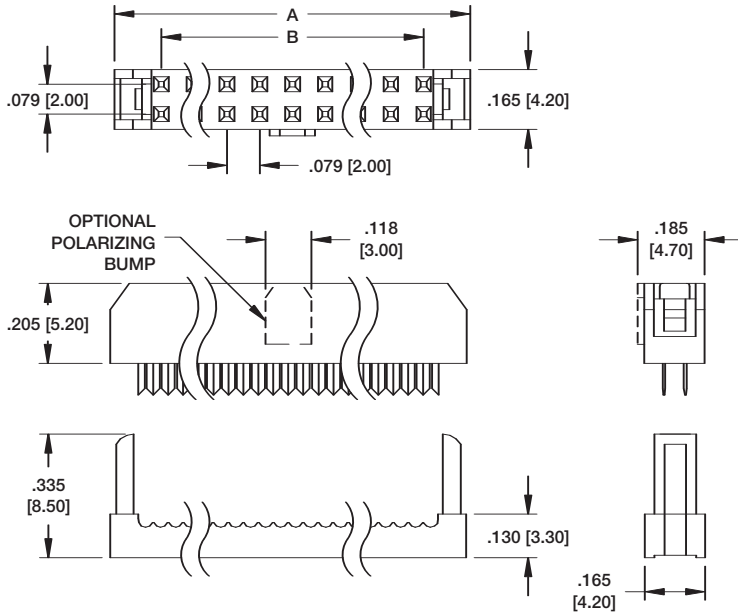
### OPTIONS:

Add designator(s) to end of part number

30 = 30  $\mu$ m gold plating in contact area

PB = Polarizing bump

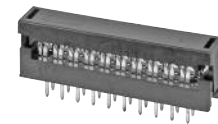
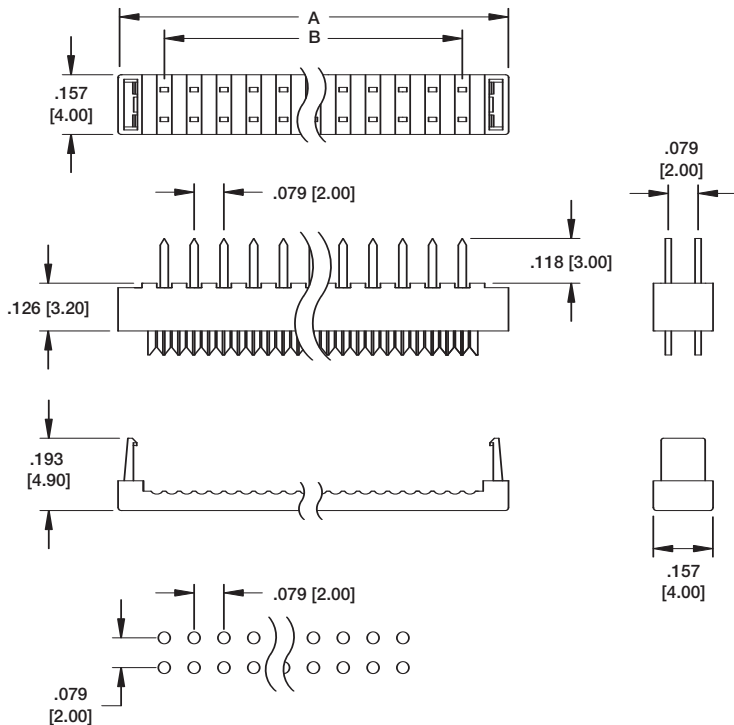
### 2FCS



2FCS-20-SG

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]

### 2FTR



2FTR-20-T

PART No. & POSITIONS	DIMENSIONS	
	A	B
2FTR-08	.480 [12.20]	.236 [6.00]
2FTR-10	.559 [14.20]	.315 [8.00]
2FTR-12	.637 [16.20]	.3937 [10.00]
2FTR-14	.716 [18.20]	.472 [12.00]
2FTR-16	.795 [20.20]	.551 [14.00]
2FTR-20	.952 [24.20]	.629 [16.00]
2FTR-22	1.031 [26.20]	.708 [18.00]
2FTR-24	1.110 [28.20]	.866 [22.00]
2FTR-26	1.189 [30.20]	.945 [24.00]
2FTR-34	1.503 [38.20]	1.260 [32.00]
2FTR-40	1.740 [44.20]	1.496 [38.00]
2FTR-44	1.897 [48.20]	1.654 [42.00]
2FTR-50	2.133 [54.20]	1.890 [48.00]
2FTR-68	2.842 [72.20]	2.598 [66.00]

Recommended PCB Layout

#### 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 (30 µin 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:

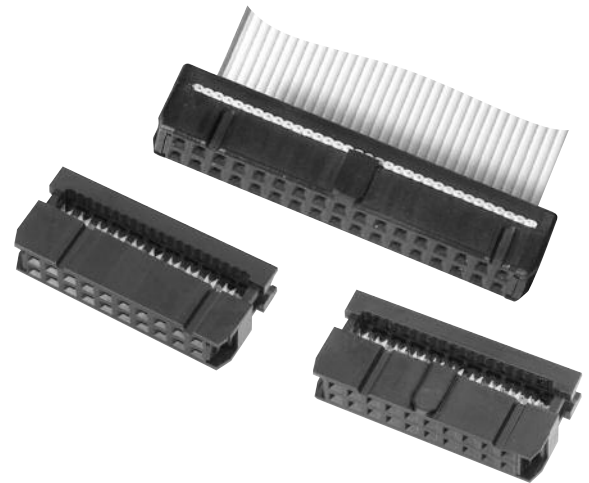
Operating temperature: -40°C to +105°C

#### PACKAGING:

Anti-ESD plastic trays

#### SAFETY AGENCY APPROVALS:

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



#### ORDERING INFORMATION

**FCS**

**50**

**SG**

##### SERIES INDICATOR

**FCS** = Flat Cable  
IDC Socket  
with standard  
single wipe  
contacts

**FCS-D2** = Flat cable  
IDC socket  
with dual  
wipe contacts

##### PLATING

**SG** = Selective  
gold plating

##### POSITIONS

06, 08, 10, 12, 14, 16, 20,  
24, 26, 30, 34, 40, 44, 50,  
56, 60, 62, 64

**Note:** Mating box headers  
for this series  
located on page 257

##### STRAIN RELIEF:

**FSR** - XX( XX = No. of Positions]

##### PULL TABS:

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

##### KEYING PLUGS:

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

##### OPTIONS:

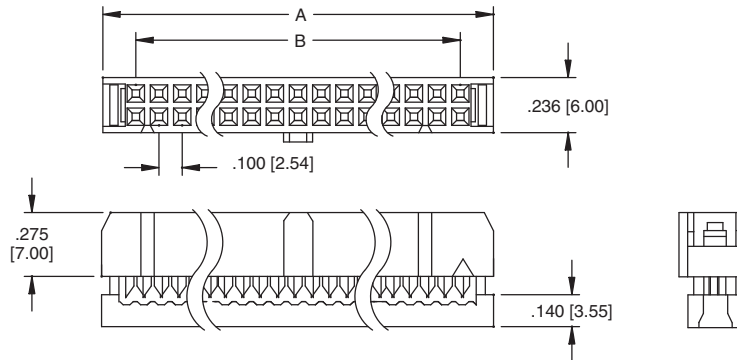
Add designator(s) to end of part number

**30** = 30 µin gold in contact area

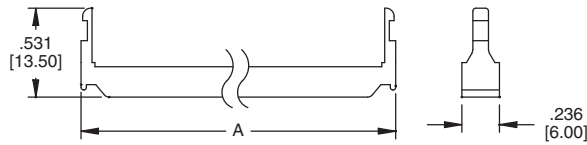
**GY** = Gray color insulator

**N** = No polarization bump

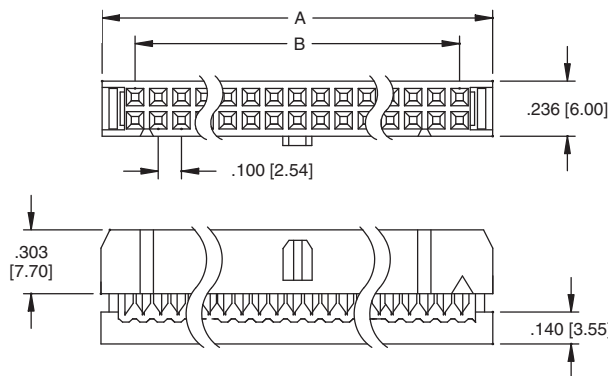
**FCS  
SINGLE WIPE CONTACT**



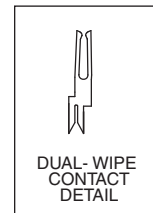
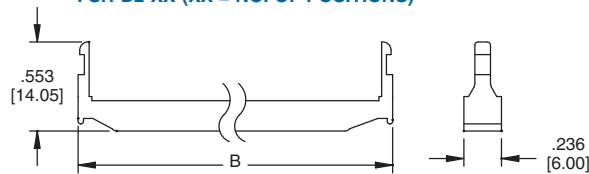
**FCS STRAIN RELIEF:  
FSR-XX (XX = NO. OF POSITIONS)**



**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]