

**.085 in. (2.16mm)  
Density  
Miniature Ribbon**

IDC, SUPERIBBON™  
All-Plastic



FEATURES

- *Patented contact terminates Discrete Wire (loose or jacketed cable) without stripping or soldering solid- and stranded-wire versions available.*
- *All-plastic design reduces cost.*
- *Available in plug and socket styles in 14, 24, 36, 50, and 64 position sizes.*
- *Includes InstaLatch passive latch feature for automatic latching. Sockets are also available without latches.*
- *Available with .125" or #4-40 mounting holes. 50-position size plug also available to lock with industry-standard Bail Latches.*
- *Designed for panel mount, 180° (Top-Entry), or 90° (Standard) / 270° (Reverse) End-Entry cable application.*
- *Integral Cable Clamp on End-Entry versions provides superior strain relief, even with hood removed.*
- *Full range of application tooling is available for termination, unlatching, etc. See page 6-54 for details.*
- *UL Recognized - Files E170218 (UL1977), E130965 (UL1863).*
- *CSA Approved - File LR31996-7.*

MATERIALS

**Insulator:** Gray UL94V-0 rated glass-filled polyester, except where noted  
**Contact:** Copper alloy  
**Contact Plating:** select gold over 50µin. select nickel standard;  
 30µin. select gold over 50µin. select nickel available  
 where indicated

ENVIRONMENTAL

**Operating Temperature:** -40°C to +105°C  
**Shock:** 50G Peak, per EIA Std. RS364, TP27, Condition A  
**Vibration:** 3 cycles @ 10-55Hz in each of 3 axes per EIA Std. 364, TP28,  
 Condition A  
**Moisture Resistance:** Per EIA Std. RS364, TP31, Condition B, with Step  
 7B excluded

ELECTRICAL

**Voltage Rating:** 500 VAC @ sea level; 125 VAC @ 70,000 ft.  
**Withstanding Voltage:** 1200 VAC RMS @ sea level, per EIA Std. RS364, TP20  
**Contact Rating:** 5 Amps (4 Amps per CSA)  
**Contact Resistance:** 6 milliohms maximum, per EIA Std. RS364, TP6  
**Contact Resistance Change During Life Conditioning:**

Wire Size	Resistance Change (milliohms, max.)
24 AWG Solid	0.5
26 AWG Solid	0.5
26 AWG Stranded	2.0
28 AWG Stranded	5.0

**Insulation Resistance:** 5000 Megohms minimum initial;  
 1000 Megohms minimum after moisture

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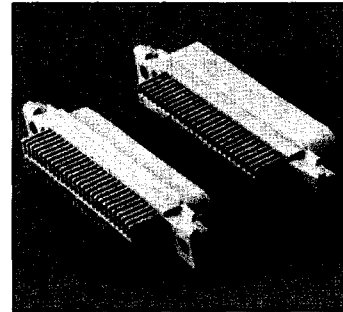
**Cinch**

**Mechanical Characteristics**

**Durability:** 200 mating/unmating cycles

**Mating / Unmating Forces:**

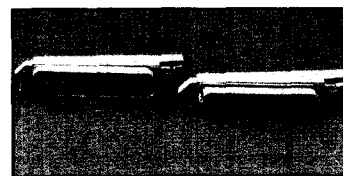
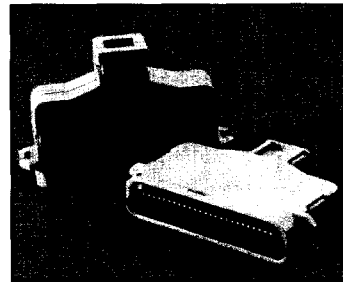
Size	Mating Force (max.) with InstaLatches		Unmating Force (min.) without InstaLatches	
	Lb.	Kg	Lb.	Kg
14	12	5.44	2	0.91
24	17	7.71	4	1.81
36	23	10.43	6	2.72
50	32	14.52	7	3.18
64	37	16.78	8	3.63



**Termination:** Solid IDC versions terminate 22 AWG - 26 AWG solid wire;  
Stranded IDC versions terminate 24 AWG - 28 AWG stranded wire;  
Recommended Wire Insulation: soft PVC, .040" (1.02mm) max. OD

**Wire Grip Strength (using recommended wire type):**

Wire Size	Minimum Force	
	Lb.	Kg
24 AWG Solid	7	3.42
26 AWG Solid	5	2.44
26 AWG Stranded	5	2.44



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**Panel Mount**

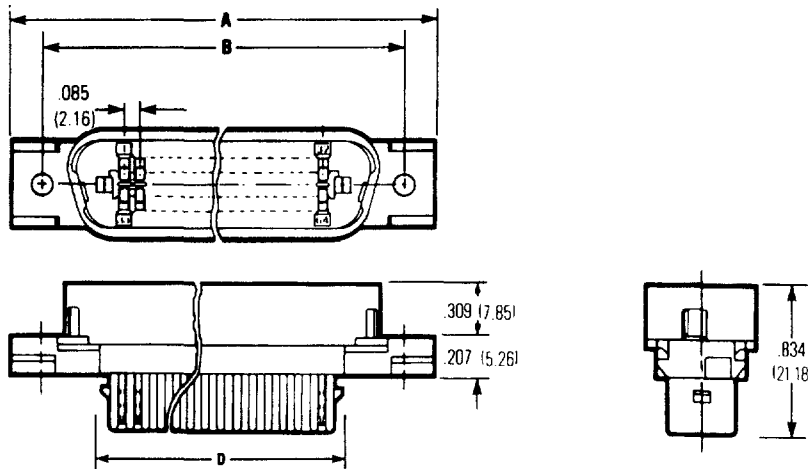
Panel mount connectors provide signal I/O from a panel or system cabinet.

See pages 6-51 thru 6-53 for accessories such as wire restraints, panel clips, mounting screws, and dust covers that make the use of Cinch SUPERIBBON connectors even more cost-effective in panel-mount applications.

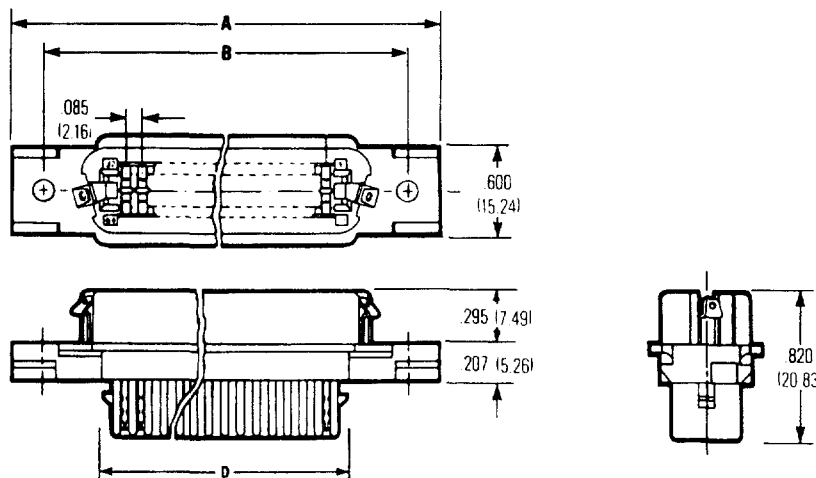
**Dimensions**

Size	A		B		D	
	in	mm	in	mm	in	mm
14	1.745	44.32	1.417	35.99	0.738	18.75
24	2.170	55.12	1.842	46.79	1.163	29.54
36	2.680	68.07	2.352	59.74	1.673	42.49
50	3.275	83.19	2.947	74.85	2.268	57.61
64	3.875	98.43	3.542	89.97	2.863	72.72

**Plug**



**Socket**



**6**

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**Ordering Information, Panel Mount**

Plug, InstaLatching

Mount	Size	Solid Wire		Stranded Wire	
		Commercial	30Au/Ni	Commercial	30Au/Ni
.125 Hole	14	97-12140-11	97-12140-11A	97-10140-11	97-10140-11A
	24	97-12240-11	97-12240-11A	97-10240-11	97-10240-11A
	36	97-12360-11	97-12360-11A	97-10360-11	97-10360-11A
	50	97-12500-11	97-12500-11A	97-10500-11	97-10500-11A
	64	97-12640-11	97-12640-11A	97-10640-11	97-10640-11A
#4-40 Hole	14	97-12140-01	97-12140-01A	97-10140-01	97-10140-01A
	24	97-12240-01	97-12240-01A	97-10240-01	97-10240-01A
	36	97-12360-01	97-12360-01A	97-10360-01	97-10360-01A
	50	97-12500-01	97-12500-01A	97-10500-01	97-10500-01A
	64	97-12640-01	97-12640-01A	97-10640-01	97-10640-01A

**Socket**

Latch Mount	Size	Solid Wire		Stranded Wire		
		Commercial	30Au/Ni	Commercial	30Au/Ni	
InstaLatches	.125 Hole	14	97-22140-11	97-22140-11A	97-20140-11	97-20140-11A
		24	97-22240-11	97-22240-11A	97-20240-11	97-20240-11A
		36	97-22360-11	97-22360-11A	97-20360-11	97-20360-11A
		50	97-22500-11	97-22500-11A	97-20500-11	97-20500-11A
		64	97-22640-11	97-22640-11A	97-20640-11	97-20640-11A
	#4-40 Hole	14	97-22140-01	97-22140-01A	97-20140-01	97-20140-01A
		24	97-22240-01	97-22240-01A	97-20240-01	97-20240-01A
		36	97-22360-01	97-22360-01A	97-20360-01	97-20360-01A
		50	97-22500-01	97-22500-01A	97-20500-01	97-20500-01A
		64	97-22640-01	97-22640-01A	97-20640-01	97-20640-01A
No Latches	.125 Hole	14	97-22140-12	97-22140-12A	97-20140-12	97-20140-12A
		24	97-22240-12	97-22240-12A	97-20240-12	97-20240-12A
		36	97-22360-12	97-22360-12A	97-20360-12	97-20360-12A
		50	97-22500-12	97-22500-12A	97-20500-12	97-20500-12A
		64	97-22640-12	97-22640-12A	97-20640-12	97-20640-12A
	#4-40 Hole	14	97-22140-02	97-22140-02A	97-20140-02	97-20140-02A
		24	97-22240-02	97-22240-02A	97-20240-02	97-20240-02A
		36	97-22360-02	97-22360-02A	97-20360-02	97-20360-02A
		50	97-22500-02	97-22500-02A	97-20500-02	97-20500-02A
		64	97-22640-02	97-22640-02A	97-20640-02	97-20640-02A

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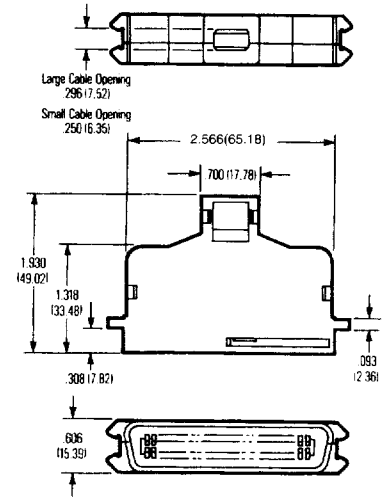


**180° (Top-Entry) Cable**

Snap-on plastic top-entry hoods are available separately to provide strain relief to a cable when one of the mounting/latching options from page 6-9 fits your requirements. See page 6-53 for details and ordering information for top-entry all-plastic hoods.

For bail latching applications, a 50-position size top-entry plug is available. It locks with industry-standard bail latches for positive locking/unlocking without tools. It also locks with InstaLatch latches for passive automatic latching.

For these products, insulator material is blue UL94V-0 rated glass-filled polyester, and hood material is gray UL94V-0 rated glass-filled polyester.



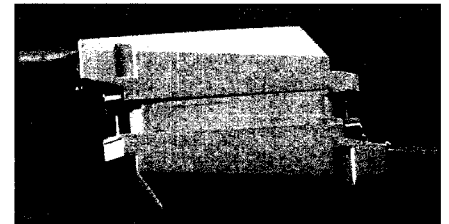
**Ordering Information, 180° (Top-Entry) Cable Bail Latching Plug**

Size	Solid Wire				Stranded Wire			
	Large (.296") Cable Opening		Small (.250") Cable Opening		Large (.296") Cable Opening		Small (.250") Cable Opening	
	Commercial	30Au/Ni	Commercial	30Au/Ni	Commercial	30Au/Ni	Commercial	30Au/Ni
50	77-32500LP	77-32500LPA	77-32500SP	77-32500SPA	77-32500LP-1	77-32500LP-1A	77-30500P	77-30500PA

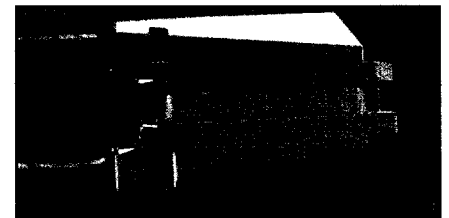
**90° (Standard) / 270° (Reverse) End-Entry Cable**

End-Entry connectors include a hood and integral cable clamp for cable exit from the end of the connector.

- The standard-orientation plug has the cable clamp on the position-1 end, and the standard-orientation socket has the clamp on the high position end.
- Cables may be extended end-to-end (i.e., "running cable") by mating standard-orientation plugs and sockets, or "doubled back" by mating a standard-orientation connector with a reverse-orientation mate.
- Cables may exit either direction on a cable-to-panel application by choosing standard or reverse-orientation, depending on the desired direction of cable exit.
- Pointed-nose versions of the standard-orientation, 50-position size are slightly smaller than the square-end product and are suited to applications with limited space such as bridging adapters, etc.
- #4-40 versions include screws that are 3/4" long, suitable for locking directly to the body of another connector. For locking to connectors panel-mounted with screwlock hardware, shorter screws are required. See pages 6-51 thru 6-53 for these and other accessories, such as dust covers.



Running Cable Application



Doubled-Back Cable Application

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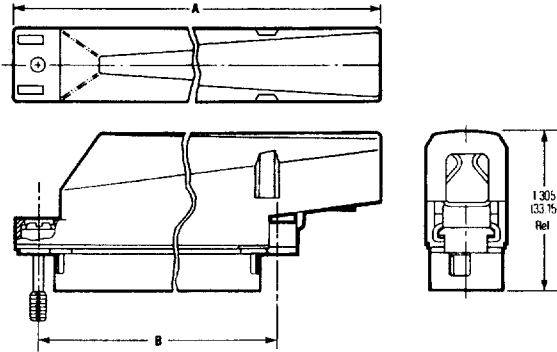
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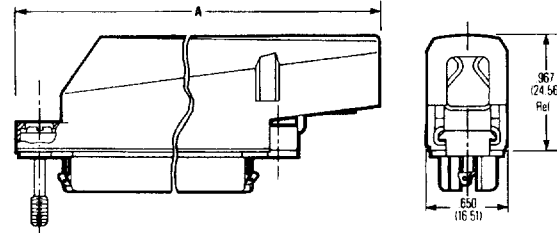
**Dimensions, Square End**

Size	A		B	
	in	mm	in	mm
14	2.114	53.70	1.417	35.99
24	2.539	64.49	1.842	46.79
36	3.049	77.44	2.352	59.74
50	3.677	93.40	2.947	74.85
64	4.511	114.58	3.542	89.97

**Plug**



**Socket**



**Ordering Information, Square End**

**Standard (90°) Orientation**

**Plug, InstaLatching**

Mount	Size	Solid Wire		Stranded Wire	
		Commercial	30Au/Ni	Commercial	30Au/Ni
.125 Hole	14	97-12140-90	97-12140-90A	97-10140-90	97-10140-90A
	24	97-12240-90	97-12240-90A	97-10240-90	97-10240-90A
	36	97-12360-90	97-12360-90A	97-10360-90	97-10360-90A
	50	97-12500-90	97-12500-90A	97-10500-90	97-10500-90A
	64	97-12640-90	97-12640-90A	97-10640-90	97-10640-90A
#4-40 Hole with Screw	14	97-12140-91	97-12140-91A	97-10140-91	97-10140-91A
	24	97-12240-91	97-12240-91A	97-10240-91	97-10240-91A
	36	97-12360-91	97-12360-91A	97-10360-91	97-10360-91A
	50	97-12500-91	97-12500-91A	97-10500-91	97-10500-91A
	64	97-12640-91	97-12640-91A	97-10640-91	97-10640-91A

**Socket**

Latch	Mount	Size	Solid Wire		Stranded Wire	
			Commercial	30Au/Ni	Commercial	30Au/Ni
InstaLatches	.125 Hole	14	97-22140-90	97-22140-90A	97-20140-90	97-20140-90A
		24	97-22240-90	97-22240-90A	97-20240-90	97-20240-90A
		36	97-22360-90	97-22360-90A	97-20360-90	97-20360-90A
		50	97-22500-90	97-22500-90A	97-20500-90	97-20500-90A
		64	97-22640-90	97-22640-90A	97-20640-90	97-20640-90A
	#4-40 Hole with Screw	14	97-22140-91	97-22140-91A	97-20140-91	97-20140-91A
		24	97-22240-91	97-22240-91A	97-20240-91	97-20240-91A
		36	97-22360-91	97-22360-91A	97-20360-91	97-20360-91A
		50	97-22500-91	97-22500-91A	97-20500-91	97-20500-91A
		64	97-22640-91	97-22640-91A	97-20640-91	97-20640-91A
No Latches	.125 Hole	14	97-22140-92	97-22140-92A	97-20140-92	97-20140-92A
		24	97-22240-92	97-22240-92A	97-20240-92	97-20240-92A
		36	97-22360-92	97-22360-92A	97-20360-92	97-20360-92A
		50	97-22500-92	97-22500-92A	97-20500-92	97-20500-92A
		64	97-22640-92	97-22640-92A	97-20640-92	97-20640-92A
	#4-40 Hole with Screw	14	97-22140-93	97-22140-93A	97-20140-93	97-20140-93A
		24	97-22240-93	97-22240-93A	97-20240-93	97-20240-93A
		36	97-22360-93	97-22360-93A	97-20360-93	97-20360-93A
		50	97-22500-93	97-22500-93A	97-20500-93	97-20500-93A
		64	97-22640-93	97-22640-93A	97-20640-93	97-20640-93A

6

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**Ordering Information, Square End (Cont'd)**

**Reverse (270°) Orientation**

**Plug, InstaLatching**

Mount	Size	Solid Wire		Stranded Wire	
		Commercial	30Au/Ni	Commercial	30Au/Ni
.125 Hole	14	97-12140-270	97-12140-270A	97-10140-270	97-10140-270A
	24	97-12240-270	97-12240-270A	97-10240-270	97-10240-270A
	36	97-12360-270	97-12360-270A	97-10360-270	97-10360-270A
	50	97-12500-270	97-12500-270A	97-10500-270	97-10500-270A
	64	97-12640-270	97-12640-270A	97-10640-270	97-10640-270A
#4-40 Hole with Screw	14	97-12140-271	97-12140-271A	97-10140-271	97-10140-271A
	24	97-12240-271	97-12240-271A	97-10240-271	97-10240-271A
	36	97-12360-271	97-12360-271A	97-10360-271	97-10360-271A
	50	97-12500-271	97-12500-271A	97-10500-271	97-10500-271A
	64	97-12640-271	97-12640-271A	97-10640-271	97-10640-271A

**Socket**

Latch	Mount	Size	Solid Wire		Stranded Wire	
			Commercial	30Au/Ni	Commercial	30Au/Ni
InstaLatches	.125 Hole	14	97-22140-270	97-22140-270A	97-20140-270	97-20140-270A
		24	97-22240-270	97-22240-270A	97-20240-270	97-20240-270A
		36	97-22360-270	97-22360-270A	97-20360-270	97-20360-270A
		50	97-22500-270	97-22500-270A	97-20500-270	97-20500-270A
		64	97-22640-270	97-22640-270A	97-20640-270	97-20640-270A
	#4-40 Hole with Screw	14	97-22140-271	97-22140-271A	97-20140-271	97-20140-271A
		24	97-22240-271	97-22240-271A	97-20240-271	97-20240-271A
		36	97-22360-271	97-22360-271A	97-20360-271	97-20360-271A
		50	97-22500-271	97-22500-271A	97-20500-271	97-20500-271A
		64	97-22640-271	97-22640-271A	97-20640-271	97-20640-271A
No Latches	.125 Hole	14	97-22140-272	97-22140-272A	97-20140-272	97-20140-272A
		24	97-22240-272	97-22240-272A	97-20240-272	97-20240-272A
		36	97-22360-272	97-22360-272A	97-20360-272	97-20360-272A
		50	97-22500-272	97-22500-272A	97-20500-272	97-20500-272A
		64	97-22640-272	97-22640-272A	97-20640-272	97-20640-272A
	#4-40 Hole with Screw	14	97-22140-273	97-22140-273A	97-20140-273	97-20140-273A
		24	97-22240-273	97-22240-273A	97-20240-273	97-20240-273A
		36	97-22360-273	97-22360-273A	97-20360-273	97-20360-273A
		50	97-22500-273	97-22500-273A	97-20500-273	97-20500-273A
		64	97-22640-273	97-22640-273A	97-20640-273	97-20640-273A

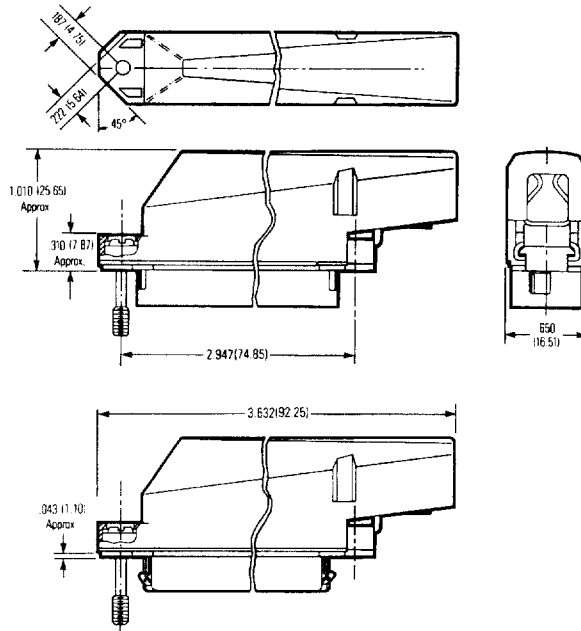
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**Pointed-End 50-Position 90° End-Entry Cable**



**Ordering Information, Pointed-End**

	Solid Wire		Stranded Wire	
	#4-40 Threaded Hole with Screw Commercial	30Au/Ni	#4-40 Threaded Hole with Screw Commercial	30Au/Ni
<b>Plug, InstaLatching</b>				
With Dust Cover	97-12500-91PD	97-12500-91PDA	97-10500-91PD	97-10500-91PDA
Without Dust Cover	97-12500-91P	97-12500-91PA	97-10500-91P	97-10500-91PA
<b>Socket, InstaLatching</b>				
With Dust Cover	97-22500-91PD	97-22500-91PDA	97-20500-91PD	97-20500-91PDA
Without Dust Cover	97-22500-91P	97-22500-91PA	97-20500-91P	97-20500-91PA
<b>Socket, No Latches</b>				
With Dust Cover	97-22500-93PD	97-22500-93PDA	97-20500-93PD	97-20500-93PDA
Without Dust Cover	97-22500-93P	97-22500-93PA	97-20500-93P	97-20500-93PA