Features

- ***Patented contact terminates Discrete Wire (loose or jacketed cable) without stripping or soldering. Solid and stranded wire versions available.***
- ***Metal shell provides grounding and shielding capability.***
- ***Available in plug and socket styles in 14, 24, 36, and 50 position sizes.***
- ***Designed for panel mount, 180° (Top-Entry), or 90° (Standard) / 270° (Reverse) End-Entry cable applications.***
- ***Available as overmold kit in 36 and 50 position sizes.***
- ***All Plugs lock with InstaLatch passive latch feature for automatic latching. Sockets available with InstaLatches where indicated.***
- ***Industry-standard bail latch feature available for locking/unlocking without tools in applications such as SCSI-1 and Centronics.***
- ***Full range of application tooling 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: Blue UL94V-0 rated glass-filled polyester

Contact: Copper alloy

Contact Plating: Select gold over 50µin. select nickel standard; 30µin. select gold over 50µin. select nickel available where indicated

Shell: Steel

Shell Plating: Zinc with clear chromate coating standard Tin 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)

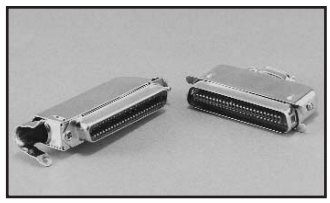
Contact Resistance: 6 milliohms maximum, per EIA Std. RS364, TP6

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

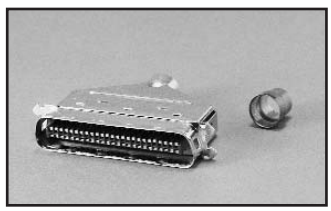
Mechanical Characteristics



Durability: 200 mating/unmating cycles

Mating / Unmating Forces:

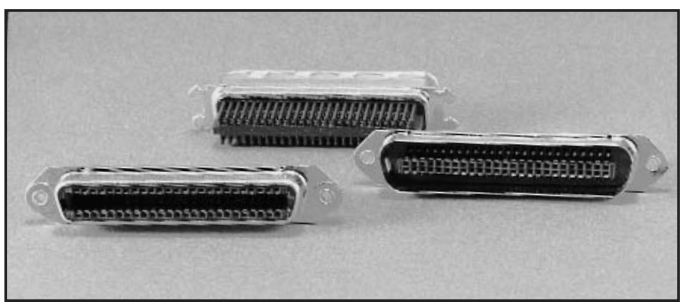
	Mating Force (max.) with InstaLatches		Unmating Force (min.) without InstaLatches	
Size	**Lb.**	**Kg**	**Lb.**	**Kg**
14	12	5.44	2	0.91
24	17	7.71	4	1.81
36	23	10.43	6	2.72
50	32	14.52	7	3.18



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):

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



Panel Mount

"Panel mount" products are connectors without hoods. They are typically used to provide signal I/O from a system panel or cabinet, where strain relief to a cable jacket is not required.

- Standard versions have .103" mounting holes (sockets have .103" with float bushings) for use with #3 hardware, or with .185" mounting holes for use with #8 hardware.
- Select sizes are available with .120" or .113" mounting holes for use with #4 hardware, or with integral panel clips, which allow snap-in front mounting on .093" thick panels for more cost-effective assembly.
- Bail latching sockets are available, as are bail latching plugs. While the plugs would not be panel-mounted, they are available for premold/solder overmolding applications.
- SuperShield products include modified shells that assure interference fit between mated connectors for improved shielding performance.

See page 6-4 for recommended standard panel cutout dimensions.

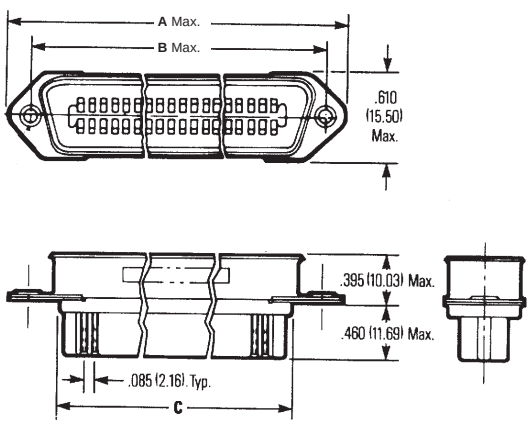
See pages 6-51 thru 6-52 for accessories such as wire restraints, mounting screws, and dust covers, which make the use of Cinch Miniature Ribbon connectors even more cost-effective in panel-mount applications.

See the appropriate cable connector section that follows for products that include hoods for exposed-cable applications.

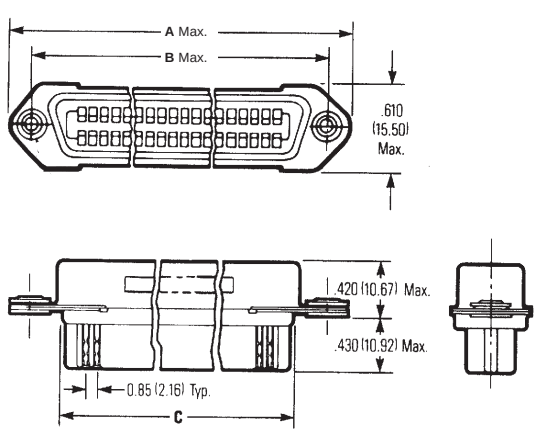
Dimensions

	A		B		C		D	
Size	in	mm	in	mm	in	mm	in	mm
14	1.750	44.45	1.417	35.99	0.910	23.11	-	-
24	2.175	55.25	1.842	46.79	1.335	33.91	-	-
36	2.685	68.20	2.352	59.74	1.845	46.86	2.426	61.62
50	3.280	83.31	2.947	74.85	2.440	61.98	3.020	76.71

Plug



Socket



Ordering Information, Panel Mount

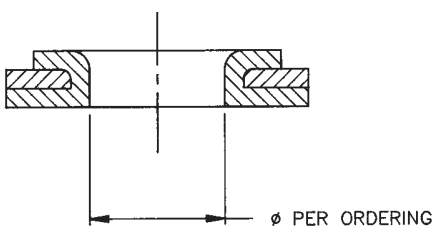
Plug, InstaLatching

Mount	Size	Solid Wire Commercial	Solid Wire 30Au/Ni
.103 Hole	14	77-12140	77-12140A
	24	77-12240	77-12240A
	36	77-12360	77-12360A
	50	77-12500	77-12500A
.103 Hole Tin-Plated Shells	24	77-12240-32	77-12240-32A
	36	77-12360-32	77-12360-32A
	50	77-12500-32	77-12500-32A
.185 Hole	14	77-12140-185	77-12140-185A
	24	77-12240-185	77-12240-185A
	36	77-12360-185	77-12360-185A
	50	77-12500-185	77-12500-185A
.185 Hole Tin-Plated Shells	24	77-12240-186	77-12240-186A
	36	77-12360-186	77-12360-186A
	50	77-12500-186	77-12500-186A
.120 Hole	50	77-12500-120	77-12500-120A
.120 Hole, Tin-Plated Shells	50	77-12500-121	77-12500-121A
SuperShield, .133 Hole	50	77-12500-SH	77-12500-SHA
Bail Latching	36	77-12360-5	77-12360-5A
Tin-Plated Shells	50	77-12500-10	77-12500-10A
.103 Hole	50	77-12500-41	77-12500-41A
Fixed 4-40 Screwlock	50	77-12500-43	77-12500-43A
SuperShield, .103 Hole	50	77-12500-SC	77-12500-SCA

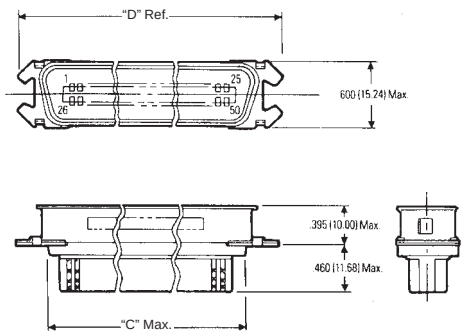
* Integral Panel Clips

**Integral Panel Clips, for front-mount only, require modified panel cutout. See page 6-52 for details.*

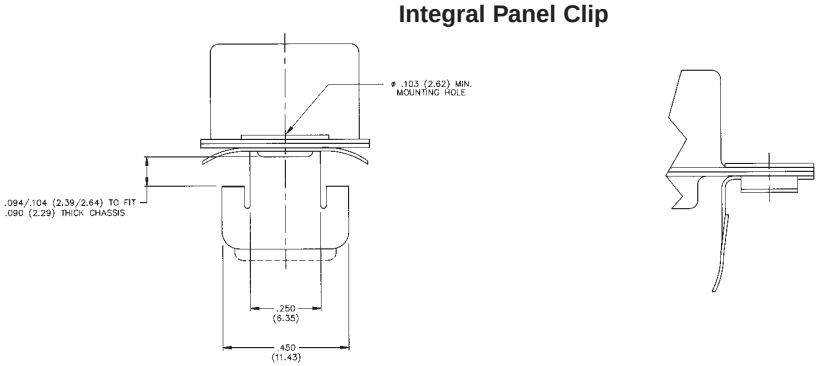
Through Hole



Bail Latching



Integral Panel Clip



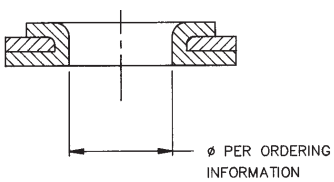
6

Ordering Information, Panel Mount (Cont'd)

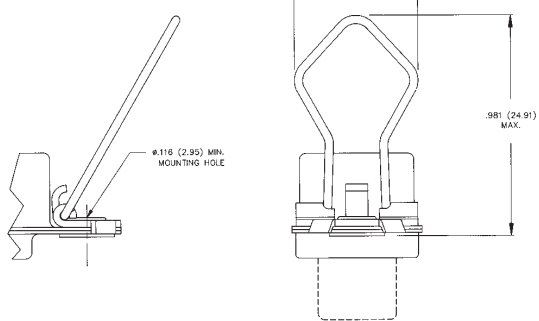
	Socket			
			Solid Wire	
	Mount	Size	Commercial	30Au/Ni
No Latches	Float Mounts with .103 Hole	14	77-22140	77-22140A
		24	77-22240	77-22240A
		36	77-22360	77-22360A
		50	77-22500	77-22500A
	.103 Hole Tin-Plated Shells	24	77-22240-34	77-22240-34A
		36	77-22360-34	77-22360-34A
		50	77-22500-34	77-22500-34A
	.185 Hole	14	77-22140-185	77-22140-185A
		24	77-22240-185	77-22240-185A
		36	77-22360-185	77-22360-185A
		50	77-22500-185	77-22500-185A
	.185 Hole Tin-Plated Shells	24	77-22240-186	77-22240-186A
		36	77-22360-186	77-22360-186A
		50	77-22500-186	77-22500-186A
	.120 Hole	50	77-22500-120	77-22500-120A
	Integral Panel Clips*, .103 Hole	50	77-22500-41	77-22500-41A
	Integral Panel Clips* Fixed 4-40 Screwlocks	50	77-22500-43	77-22500-43A
Bail Latches	.116 Hole	14	77-42140	77-42140A
		24	77-42240	77-42240A
		36	77-42360	77-42360A
		50	77-42500	77-42500A
	.116 Hole with Tin-Plated Shell	36	77-42360-5	77-42360-5A
		50	77-42500-5	77-42500-5A
InstaLatches	.103 Hole Tin-Plated Shell	50	77- 22500-36	77- 22500-36A
	.113 Hole Tin-Plated Shell	50	77-22500-38	77-22500-38A
	SuperShield, .103 Hole with Integral Panel Clips*	50	77-22500-SC	77-22500-SCA

** Integral Panel Clips, for front-mount only, require modified panel cutout.*
See page 6-52 for details.

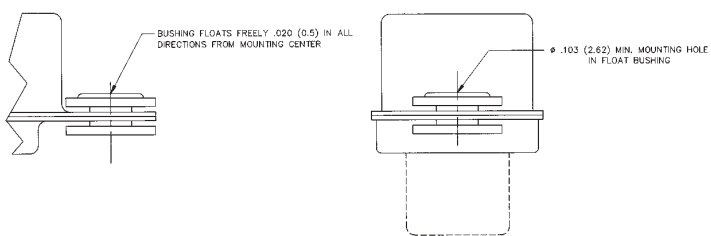
Through Hole



Bail Latching



Float Mount



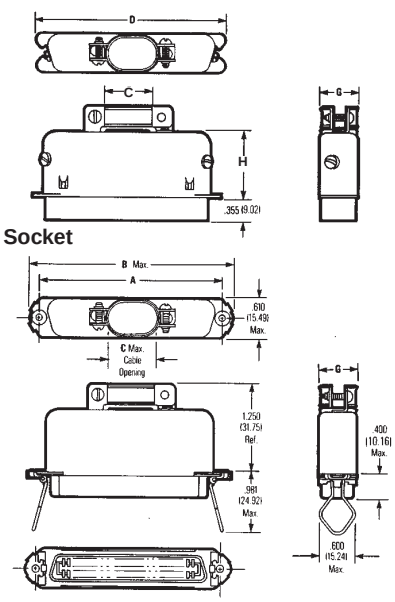
180° (Top-Entry) Cable

Top-Entry products include a connector, hood (or overmold can), and associated hardware.

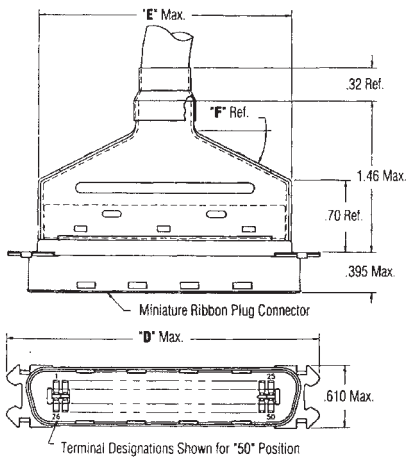
They are typically used at the end of a cable, where it is subject to physical strain and protection of the termination area is required.

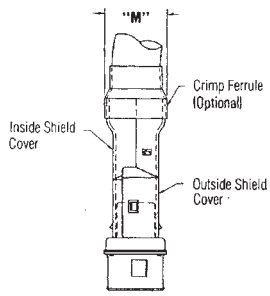
- Includes all hardware required to attach hood to connector.
- Bail latching sockets have latch hardware integral to the connector body, making cable assembly more efficient.
- Bail latching plugs include notches that lock with industry-standard bail-latch sockets.
- Select configurations are available as overmold kits, which lower assembly costs by eliminating premolding and foil soldering. Kits include connector and overmold cans. Crimp ferrules, which ground cable shields and provide strain relief, must be ordered separately.
- Ordering information for crimp ferrules is at end of end-entry product section. See page 6-22.

Plug



Overmold Kit





Dimensions

	A		B		C		D		E		F	G		H		M	
Size	in	mm	in	mm	in	mm	in	mm	in	mm	Deg.	in	mm	in	mm	in	mm
14	1.417	35.99	1.750	44.45	.306	7.77	1.495	37.97	-	-	-	.422	10.72	.843	21.41	-	-
24	1.842	46.79	2.175	55.25	.473	11.10	1.920	48.77	-	-	-	.473	12.01	.825	20.96	-	-
36	2.352	59.74	2.685	68.20	.639	16.23	2.431	61.75	1.83	46.48	37°	.473	12.01	.905	22.99	.52	13.21
50	2.947	74.85	3.270	83.06	.766	19.46	3.025	76.84	2.43	61.72	27°	.473	12.01	.995	25.27	.60	15.24

Ordering Information, 180° (Top-Entry) Cable

Plug, InstaLatching

	Mount	Size	Solid Wire Commercial	Solid Wire 30Au/Ni
	Bail Latching	14	77-32140	77-32140A
		24	77-32240	77-32240A
		36	77-32360	77-32360A
		50	77-32500	77-32500A
	Captive 4-40 Screws	50	77-32500-30	77-32500-30A
Overmold kit	Bail Latching, Tin Shell	36	77-32360-51	77-32360-51A
		50	77-32500-51	77-32500-51A
	.103 Hole, Tin Shell	36	77-32360-52	77-32360-52A
		50	77-32500-52	77-32500-52A

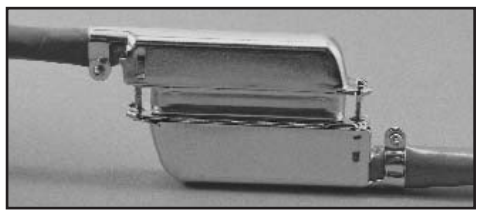
Socket

	Mount	Size	Solid Wire Commercial	Solid Wire 30Au/Ni
	With Bail Latches	14	77-62140	77-62140A
		24	77-62240	77-62240A
		36	77-62360	77-62360A
		50	77-62500	77-62500A
Overmold kit InstaLatch	.103 Hole, Tin-Plated Shells	50	77-62500-54	77-62500-54A
	.113 Hole, Tin-Plated Shells	50	77-62500-55	77-62500-55A

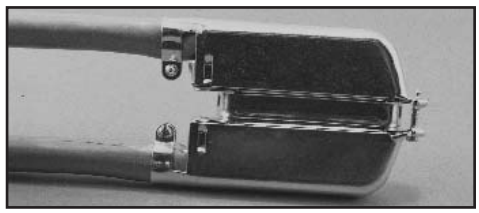
90° (Standard) / 270° (Reverse) End-Entry Cable

End-Entry connectors, available in 50 position size only, include a hood and integral cable clamp for cable exit from the end of the connector.

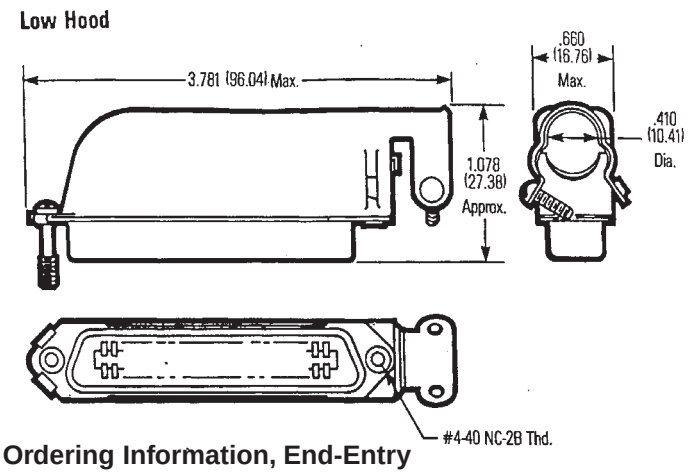
- The standard-orientation plug has the cable clamp on the position 1/26 end, and the standard-orientation socket has the clamp on the position 25/50 end.
- Cables may be extended end-to-end (i.e., “running cable”) by mating standard-orientation plugs and sockets, or “doubled back” by mating a standard-orientation 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.
- Include screw that is 5/8" 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 page 6-51 for these and other accessories, such as dust covers.

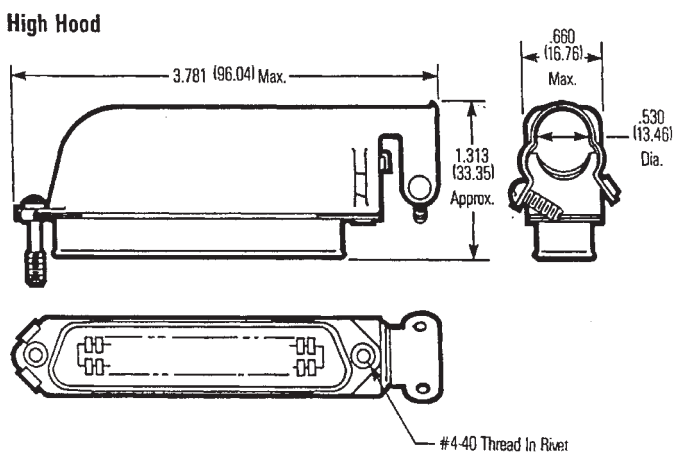


Running Cable Application



Double-Back Cable Application





Ordering Information, End-Entry

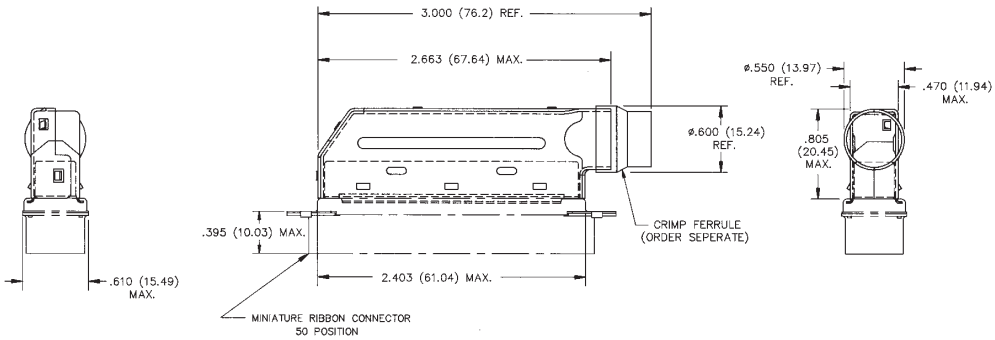
Standard (90°) Orientation

	Mount	Size	Solid Wire Commercial	Solid Wire 30Au/Ni
Plug	High (Standard) Hood	50	77-72500	77-72500A
	Low-Profile Hood	50	77-72500-1	77-72500-1A
	SuperShield, 4-40 Screw	50	77-72500-SS	77-72500-SSA
Socket no latches	High (Standard) Hood	50	77-82500	77-82500A
	Low-Profile Hood	50	77-82500-1	77-82500-1A
	SuperShield, 4-40 Screw	50	77-82500-SS	77-82500-SSA

Reverse (270°) Orientation

	Mount	Size	Solid Wire Commercial	Solid Wire 30Au/Ni
Plug	High (Standard) Hood	50	77-72500-270	77-72500-270A
	Low-Profile Hood	50	77-72500-271	77-72500-271A
Socket no latches	High (Standard) Hood	50	77-82500-270	77-82500-270A
	Low-Profile Hood	50	77-82500-271	77-82500-271A

Overmold Kit, End-Entry
(May be assembled with cable exit in either direction)



Ordering Information, End-Entry Overmold Kit

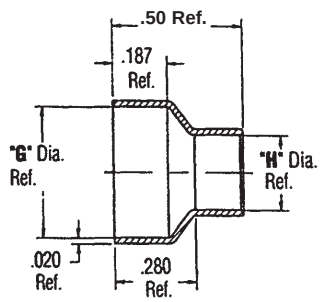
			Solid Wire	
		Size	Commercial	30Au/Ni
	Plug, Bail Latching, Tin Shell	50	77-72500-51	77-72500-51A
Socket InstaLatch	.103 Hole, Tin-Plated Shells	50	77-82500-54	77-82500-54A
	.113 Hole, Tin-Plated Shells	50	77-82500-55	77-82500-55A

Overmold Crimp Ferrules

- Connect cable's shield to can of overmold kit
- Seal off cable exit to keep molding compound from penetrating termination cavity

See page 6-56 for tools and dies required to crimp ferrules onto overmold cans.

Ferrule



Ordering Information, Overmold Crimp Ferrules

Kit Size	Max. Cable O.D.	Ferrule Part Number	Dimensions G	H
36	0.400	CF-64	.480 (12.19)	.400 (10.16)
50	0.390	CF-60	.580 (14.73)	.390 (9.91)
	0.480	CF-57	.580 (14.73)	.480 (12.19)