

Specifications and Ordering Information

Specifications

- Contacts: phosphor bronze, standard; bare CDA 725, optional
- Contact Plating: 30 μ in. gold (in mating area) over 50 μ in. nickel, standard; 10 μ in. gold (in mating area) over 50 μ in. nickel, optional; 50 μ in. gold (in mating area) over 50 μ in. nickel, optional; 100 μ in. tin-lead, optional
- Insulator Material: UL 94V-0 flame - retardant thermoplastic
- Color: blue
- Operating Temperature: -55°C to +125°C
- Current Rating: 1 A (maximum) per contact
- Dielectric Withstand Voltage: greater than 500 Vdc at sea level
- Insulation Resistance: greater than 5 x 10⁹ ohms
- Cover pull-off force 8 oz/contact min. (force along contacts' primary axes)

How to Order Card Edge Connectors

CWR-XXX-XX-00XX

Type of Connector

170 = Card edge connector without mounting ears

171 = Card edge connector with mounting ears

Number of Contacts
(10, 20, 26, 34, 40 or 50)

Plating

0021 = 30 μ in. gold (in mating area) over 50 μ in. nickel (standard)

0000 = 10 μ in. gold (in mating area) over 50 μ in. nickel

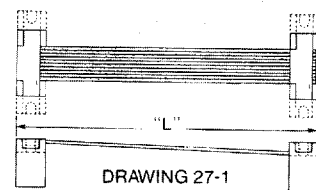
0055 = 50 μ in. gold (in mating area) over 50 μ in. nickel

0003 = 100 μ in. tin-lead

0004 = Bare, CDA 725 alloy

How to Order Card Edge Cable Assemblies

Cable assemblies with two card edge connectors on a prescribed length of color-coded cable are available with the connectors oriented per drawing 27-1. (#1 contacts oriented to brown conductor.) For other lengths, orientations, numbers or combinations of connectors, contact your local value-added distributor.



CA-XX-9X0X

Number of Conductors
(10, 20, 26, 34, 40 or 50)

Type of Connector

4 = card edge connectors without mounting ears.
CWR-170-XX-0021
(See drawing 27-1)

5 = card edge connectors with mounting ears.
CWR-171-XX-0021
(See drawing 27-1)

Final assembly length "L"



1=3" \pm 1/8"

2=6" \pm 1/8"

3=12" \pm 1/4"

4=24" \pm 1/4"

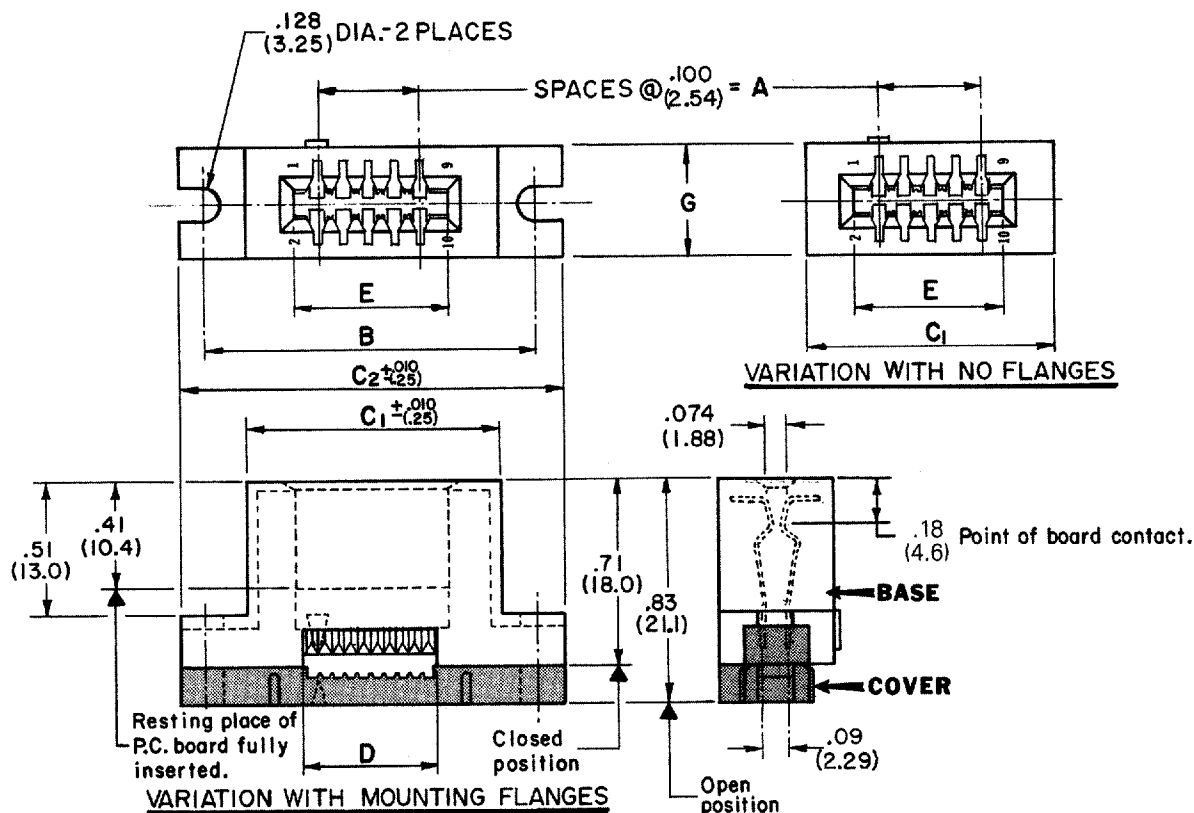
5=48" \pm 1/4"

REVISIONS		Tolerances unless otherwise specified: 2 PLACE DEC. \pm .010 3 PLACE DEC. \pm .005 ANGLES \pm 1°	CW INDUSTRIES 130 James Way Southampton, PA 18966
	L. Webber DRAWN BY	CARD EDGE CONNECTOR	
	CHECKED 		PART NO.
	ENG. APPR. 		

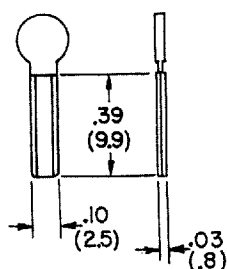
Card Edge Connectors

Engineering Dimensions

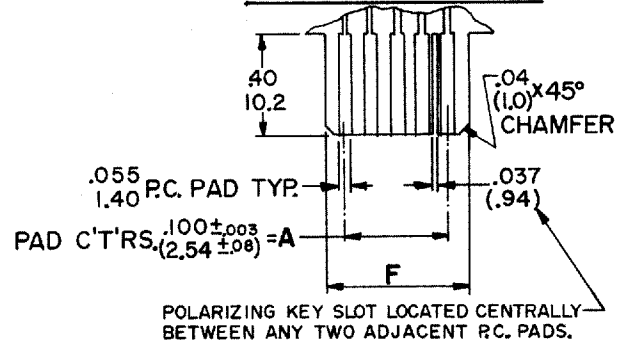
Dimensions



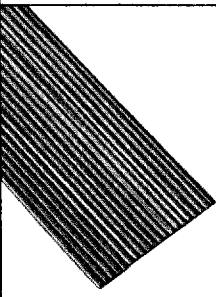

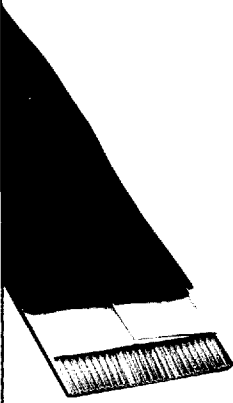
POLARIZING KEY CWN - KEY 2



RECOMMENDED P.C. BOARD DIMENSIONS



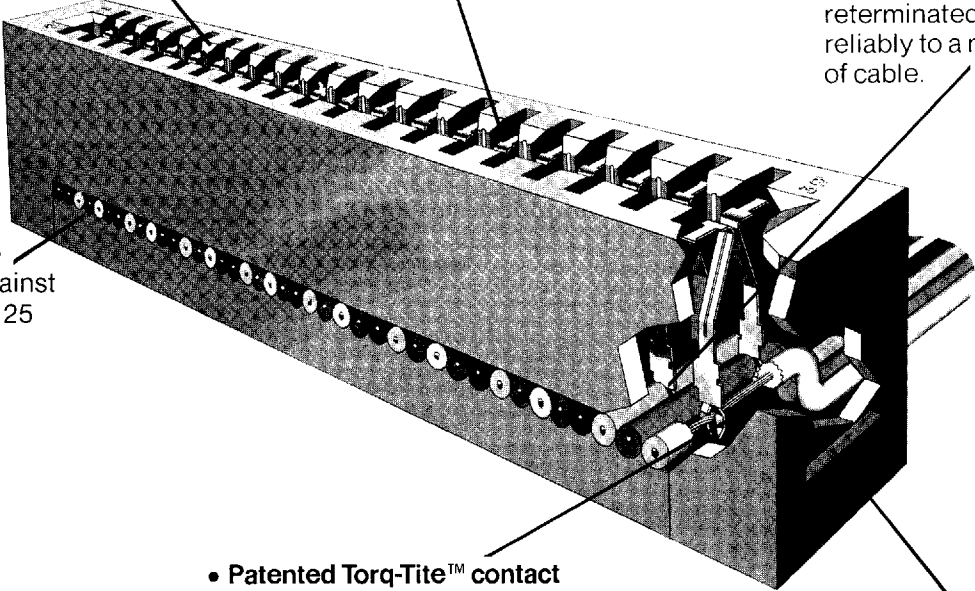
CONNECTOR DIMENSIONS								
No. Confs.	A	B	C1	C2	D	E	F	G
10	.400 (10.16)	1.300 (33.02)	.976 (24.79)	1.500 (38.10)	.520 (13.21)	.604 (15.34)	.596 (15.14)	.43 (10.9)
20	.900 (22.86)	1.800 (45.72)	1.476 (37.49)	2.000 (50.80)	1.020 (25.91)	1.104 (28.04)	1.096 (27.84)	.43 (10.9)
26	1.200 (30.48)	2.100 (53.34)	1.776 (45.11)	2.300 (58.42)	1.320 (33.53)	1.404 (35.66)	1.396 (35.46)	.43 (10.9)
34	1.600 (40.64)	2.500 (63.50)	2.176 (55.27)	2.700 (68.58)	1.720 (43.69)	1.804 (45.82)	1.796 (45.82)	.43 (10.9)
40	1.900 (48.26)	2.800 (71.12)	2.476 (62.89)	3.000 (76.20)	2.020 (51.31)	2.104 (53.44)	2.096 (53.24)	.43 (10.9)
50	2.400 (60.96)	3.400 (86.36)	2.976 (75.59)	3.900 (99.06)	2.520 (64.01)	2.604 (66.14)	2.596 (65.94)	.44 (11.2)

No. of Conductors	Pages	Standards and Specifications		Flat Cable Guide	Page
10, 14, 16, 20, 26, 34, 40, 50, 60	6, 7 8, 9	<ul style="list-style-type: none"> • Contacts: phosphor bronze, standard; bare CDA 725, optional • Contact Plating: <ul style="list-style-type: none"> 30 μ in. gold over 50 μ in. nickel, standard* 10 μ in. gold over 50 μ in. nickel, optional* 50 μ in. gold over 50 μ in. nickel, optional 100 μ in. tin-lead optional* 200 μ in. tin-lead optional* 		Gray 28 AWG (7/36) .050 in. conductor spacing No. Conductors: 9, 10, 14, 15, 16, 20, 24, 25, 26, 34, 37, 40, 50, 60 <ul style="list-style-type: none"> • Extruded, mirror image design • UL Style 2651 	38
10, 14, 16, 20, 26, 34, 40, 50, 60	10, 11 12, 13 14, 15 16, 17	<ul style="list-style-type: none"> • Housing Material UL 94V-0 flame-retardant thermoplastic • Color: blue • Operating Temperature: -55° to +125°C 		Color-coded 28 AWG (7/36) .050 in. conductor spacing No. Conductors: 9, 10, 14, 15, 16, 20, 24, 25, 26, 34, 37, 40, 50, 60 <ul style="list-style-type: none"> • Bonded or Laminated Styles available • Thinner Bonded Cable—only .035 in. thick 	39
9, 15, 25, 37 with pin or socket contacts	18, 19 20, 21 22, 23 24, 25	<ul style="list-style-type: none"> • Current Rating: 1 amp (maximum) per contact • Dielectric Withstand Voltage: greater than 500 Vdc at sea level • Insulation Resistance: greater than 5×10^9 ohms • Standard Contact Resistance 15 milliohms max. 		Jacketed-Shielded 28 AWG (7/36) .050 in. conductor spacing No. Conductors: 9, 10, 14, 15, 16, 20, 24, 25, 26, 34, 37, 40, 50, 60 <ul style="list-style-type: none"> • Aluminum/mylar shield (aluminum outward) provides for effective shielding and grounding • UL listed for external connection of Class 2 and 3 circuits 	40
10, 20, 26, 34, 40, 50	26, 27 28, 29	<ul style="list-style-type: none"> * Tin-lead plating not available on header connectors. 			
14, 16 24, 4C	30, 31 32, 33				
10, 20, 26, 34, 40, 50 60	34, 35 36, 37				
<p>New From CW! Please see the inside back cover for information on our Nano and American Din connector systems. Send for the latest designers' guide for Micro-miniature and high density connectors.</p>					

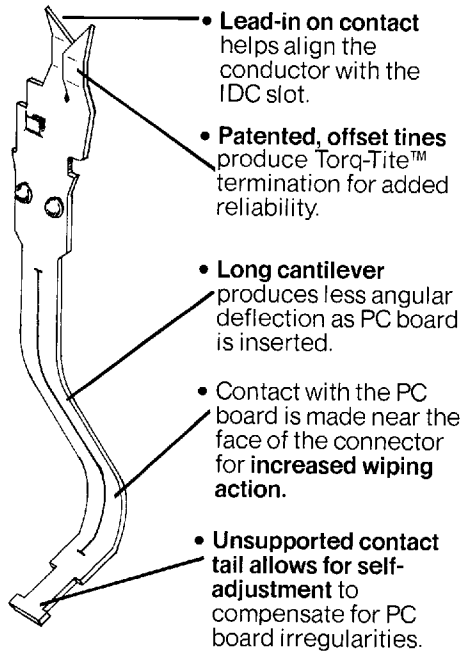
The card edge connector provides a fast means for connecting/disconnecting single, double-sided or multi-layer printed circuit boards.

Contact force consistency is obtained through the use of a long cantilevered contact having a minimum deflection angle and an extended self-cleaning, wiping action. These contacts ensure positive connection to the board, even when pad surfaces are irregular.

Good contact pressure is maintained with minimum wear on PC board pads, even in hostile environments, and after numerous insertions and withdrawals or shock and vibration.

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- **Insulator protects contacts** from possible damage when mated with PC board.
 - **Polarizing key slots** allow positive polarization without loss of a contact position.
 - **Contact and cover design provides for reuse.** Connector can be reterminated easily and reliably to a new section of cable.
 - **Sturdy cover posts** provide protection against cable pulls of 25 lb or more.
 - **Patented Torq-Tite™ contact** keeps conductor under constant tension. Assures a mechanically and electrically, sound, gas-tight connection.
 - **Recessed slot** provides means for non-destructive removal of cover.

Contact

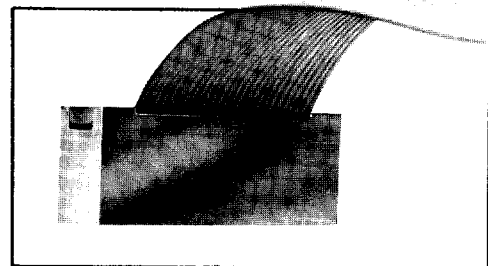


Card Edge Connector Features

- 10, 20, 26, 34, 40, and 50 contact versions.
- Compatible with various PC board thicknesses, from .032 in. to .070 in. thick.
- Standard gold-plated phosphor bronze contacts; tin-lead plated, or bare CDA 725 alloy contacts optional.
- Can be daisy-chained or applied in cable end terminations.
- Factory pre-assembled cover minimizes assembly time.
- Available with or without mounting flanges.
- Dependable long cantilever contact design maintains consistent pressure even after repeated matings with PC boards. Insures a long insertion/withdrawal cycle life and a good self-cleaning wipe on each PC board pad.
- Self-adjusting contact compensates for variations in PC board thickness.
- Closed entry protection prevents possible damage caused by PC board irregularities.

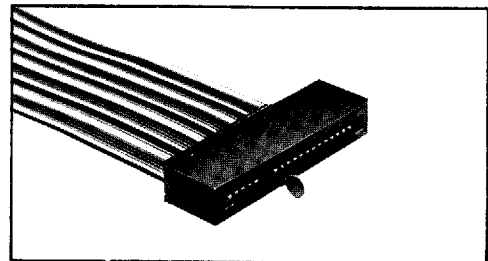
Strain Relief

Strain relief is an integral part of CW Card Edge connector. A strain relief lip is molded into the connector body. Upon installation of the cover, this lip causes a strain relief bend in the cable that prevents forces applied to the cable from being transferred to the IDC termination.



Polarization

Positive polarization is available on all CW card edge connectors. A polarizing key, inserted into a V-slot located between any two contacts, fits into a corresponding .037 in. slot cut into the PC board. This technique not only provides positive polarization without loss of a contact position, but also helps ensure precise alignment of the contacts to the PC board's pads.



Assembly

Assembling these connectors is both fast and easy using only a simple bench press. The connector body is designed to orient the cable to the contact tines, and the factory preassembled cover permits termination of all conductors in one step—simply apply opposing parallel forces on the connector cover and base.

