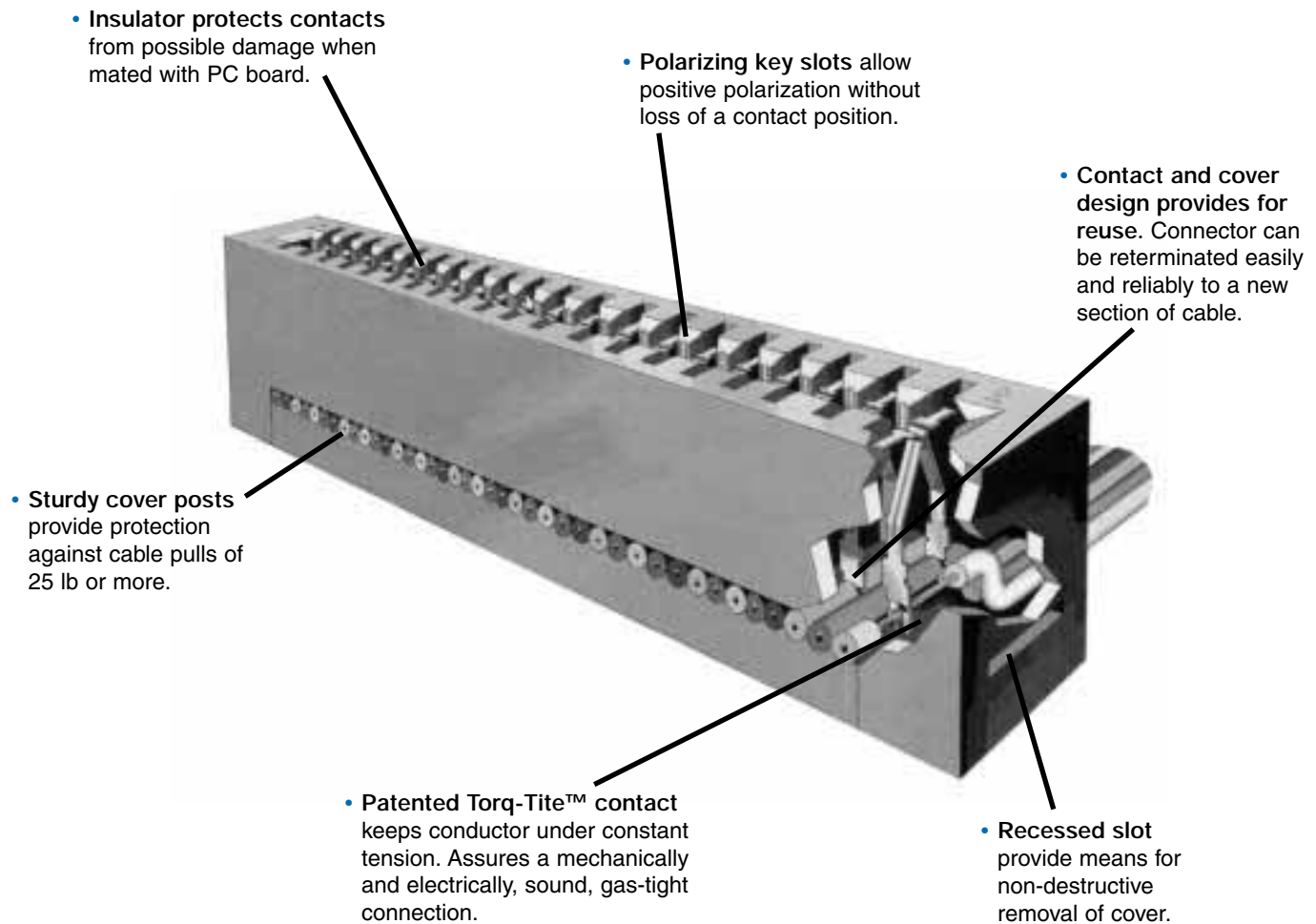


# Card Edge Connectors

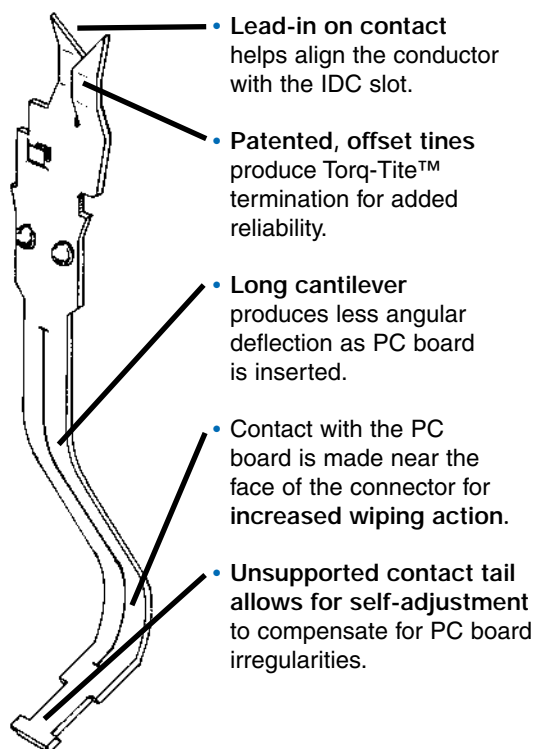
The card edge connector provides a fast means for connecting/disconnecting single, double-sided or multi-layer printed circuit boards.

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.



## Contact



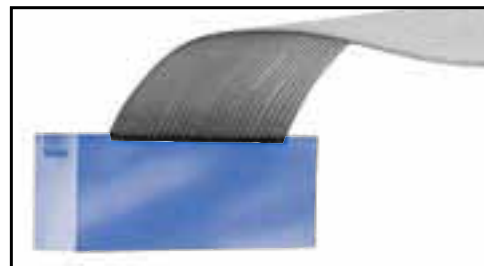
- **Lead-in on contact** helps align the conductor with the IDC slot.
- **Patented, offset tines** produce Torq-Tite™ termination for added reliability.
- **Long cantilever** produces less angular deflection as PC board is inserted.
- **Contact with the PC board** is made near the face of the connector for increased wiping action.
- **Unsupported contact tail** allows for self-adjustment to compensate for PC board irregularities.

## 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 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.

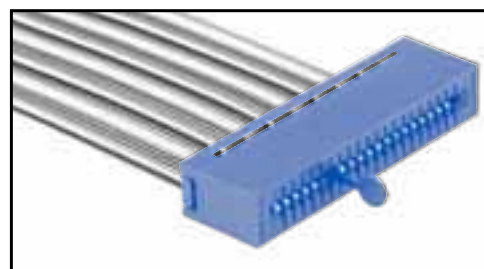
## Strain Relief

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

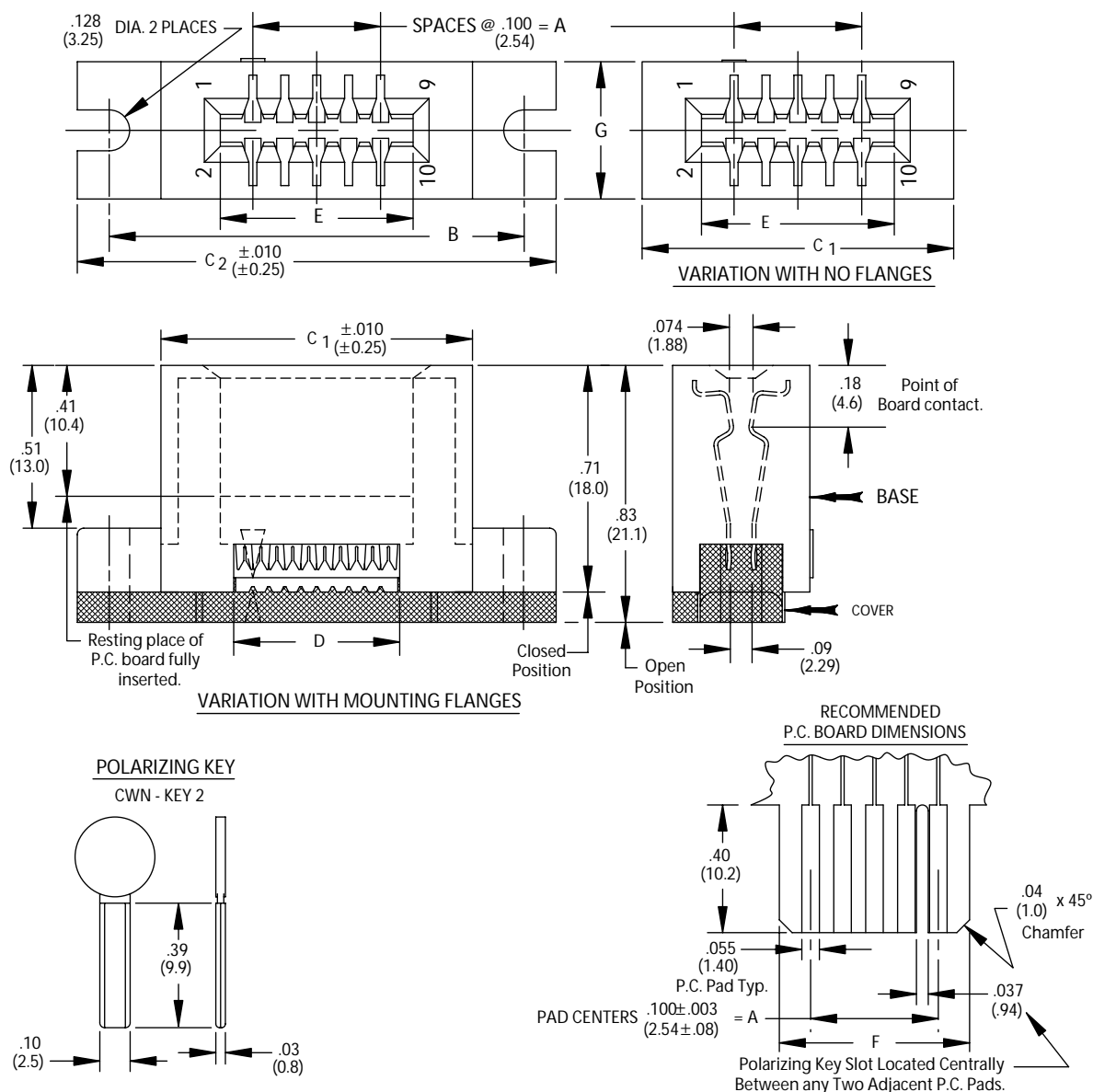
Assembling these connectors is both fast and easy using only a simple bench press. The connector body is designed to orient the cable to the contact tines, and the factory preassembled cover permits termination of all conductors in one step—simply apply opposing parallel forces on the connector cover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



# Card Edge Connectors

## Engineering Dimensions

### Dimensions



CONNECTOR DIMENSIONS								
NO. CONTS.	A	B	C <sub>1</sub>	C <sub>2</sub>	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 (45.62)	.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)

# Specifications and Ordering Information

## Specifications

- Contacts: phosphor bronze standard.
- Contact Plating: 30μ in. gold (in mating area) over 50μ in. nickel, standard; 10μ in. gold (in mating area) over 50μ in. nickel, optional; 50μ in. gold (in mating area) over 50μ in. nickel, optional; 100μ in. tin-lead optional
- Insulator Material: UL 94V-0 flame - retardant thermoplastic
- Color: blue
- Operating temperature: -55° to +125°C
- Current Rating: 1A(maximum) per contact
- Dielectric Withstand Voltage: greater than 500 Vdc at sea level
- Insulation Resistance: greater than  $5 \times 10^9$  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

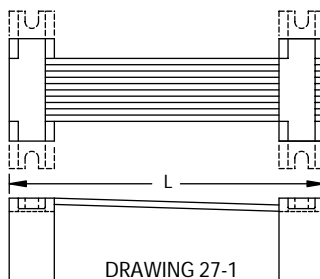
Number of Contacts  
(10, 20, 26, 34, 40, or 50)

Plating  
0021=30μ in. gold (in mating area) over 50μ in. nickel (standard)  
0000=10μ in. gold (in mating area) over 50μ in. nickel  
0055=50μ in. gold (in mating area) over 50μ in. nickel  
0003=100μ in. tin-lead

## 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, 50)

Final assembly length "L"  
1=3"±1/8"  
2=6"±1/8"  
3=12"±1/4"  
4=24"±1/4"  
5=48"±1/4"

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)

# Mouser Electronics

Authorized Distributor

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[CWR-170-40-0021](#)