

## Specifications and Ordering Information

### Specifications

- Contacts: phosphor bronze, standard; bare CDA 725, optional
- Contact Plating: 30μ in. gold (in mating area) over 50μ in. nickel, standard; 10μ gold (in mating area) over 50μ in. nickel, optional; 50μ in. gold. (in mating area) over 50μ in. nickel, optional
- Insulator Material: UL 94V-0 flame-retardant thermoplastic
- Color: blue
- Operating Temperature: -55°C to +125°C
- Current Rating: 1A (maximum) per contact
- Dielectric Withstand Voltage: greater than 500 Vdc at sea level
- Insulation Resistance: greater than 5 x 10<sup>9</sup>ohms
- U.S. Defense Department Mil-C-83503/20, 21, approved

### How to Order Header Connectors

#### CWN-XXX-XX-XXXX

Type of Connector  
 3 = polarized header  
 4 = non-polarized header\*

Pin Configuration  
 0 = right angle solder pins.  
     .090" long  
 1 = right angle solder pins.  
     .155" long  
 2 = right angle wire wrap  
 5 = straight solder pins,  
     .090" long  
 6 = straight solder pins,  
     .155" long  
 7 = straight wire wrap pins

Latches  
 0 = no latches  
 1 = short latches for non-strain relief sockets (.425")  
 2 = long latches for strain relief sockets (.573")

Number of Contacts  
 (10, 14, 16, 20, 26, 34, 40, 50 or 60)




Plating  
 0021 = 30μ gold (in mating area) over 50μ in. nickel (standard)  
 0000 = 10μ in. gold (in mating area) over 50μ in. nickel  
 0022 = 50μ in. gold (in mating area) over 50μ in. nickel. Mil-C-83503 approved, CWN-3X2 versions only  
 0077 = Duplex plated, 30μ in. gold in mating area, 100μ in. tin-lead in solder pin area, all over 50μ in. nickel (optional).

No. Cnts.	A	B	C	D	E①	E②	F①	F②
10	.400 (10.16)	.860 (21.84)	1.260 (32.00)	1.100 (27.94)	↑ ↓	↑ ↓	↑ ↓	↑ ↓
14	.600 (15.24)	1.060 (26.92)	1.460 (37.08)	1.300 (33.02)				
16	.700 (17.78)	1.160 (29.46)	1.560 (39.62)	1.400 (35.56)				
20	.900 (22.86)	1.360 (34.54)	1.760 (44.70)	1.600 (40.64)				
26	1.200 (30.48)	1.660 (42.16)	2.060 (52.32)	1.900 (48.26)				
34	1.600 (40.64)	2.060 (52.32)	2.460 (62.48)	2.300 (58.42)				
40	1.900 (48.26)	2.360 (59.44)	2.760 (70.10)	2.600 (66.04)				
50	2.400 (60.96)	2.860 (72.64)	3.260 (82.80)	3.100 (78.74)				
60	2.900 (73.66)	3.360 (85.34)	3.760 (95.50)	3.600 (91.44)				

E ① and F ① pertains to all headers with short latches

E ② and F ② pertains to all headers with long latches

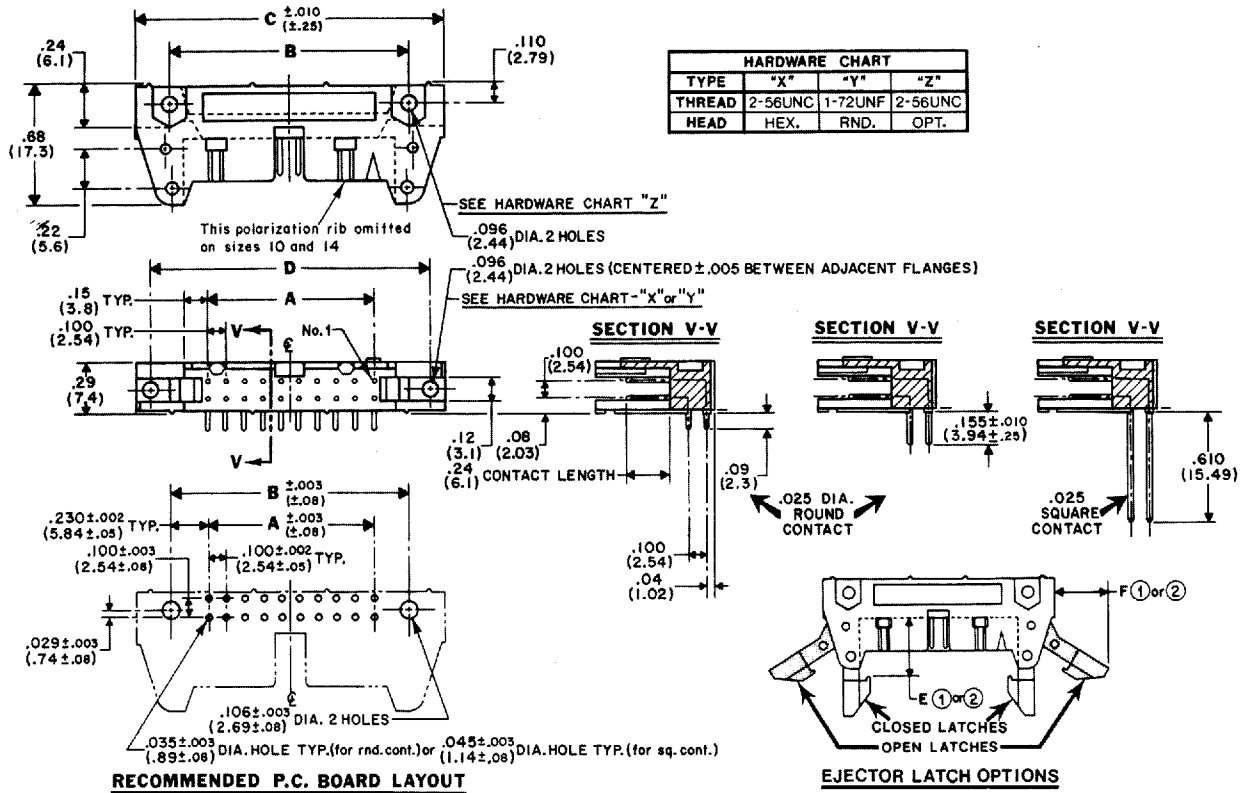
\*Polarizing ribs removed

REVISIONS	Tolerances unless otherwise specified: <b>2 PLACE DEC. ± .010</b> <b>3 PLACE DEC. ± .005</b> <b>ANGLES ± 1°</b>	 130 James Way Southampton, PA 18966
	L. Webber DRAWN BY	
	CHECKED BY 	PART NO.
	ENG. APPR. 	

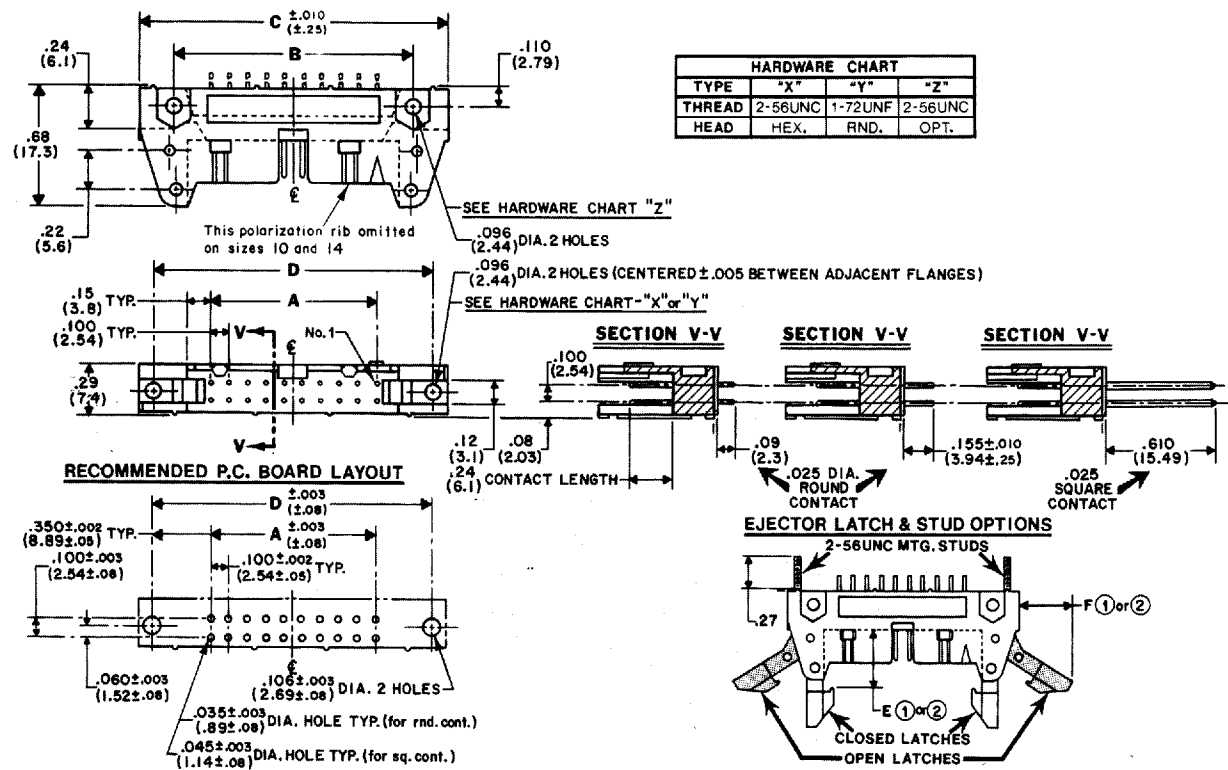
# Headers

## Engineering Dimensions

### Dimensions Right Angle Header



### Straight Header



# Header Connectors

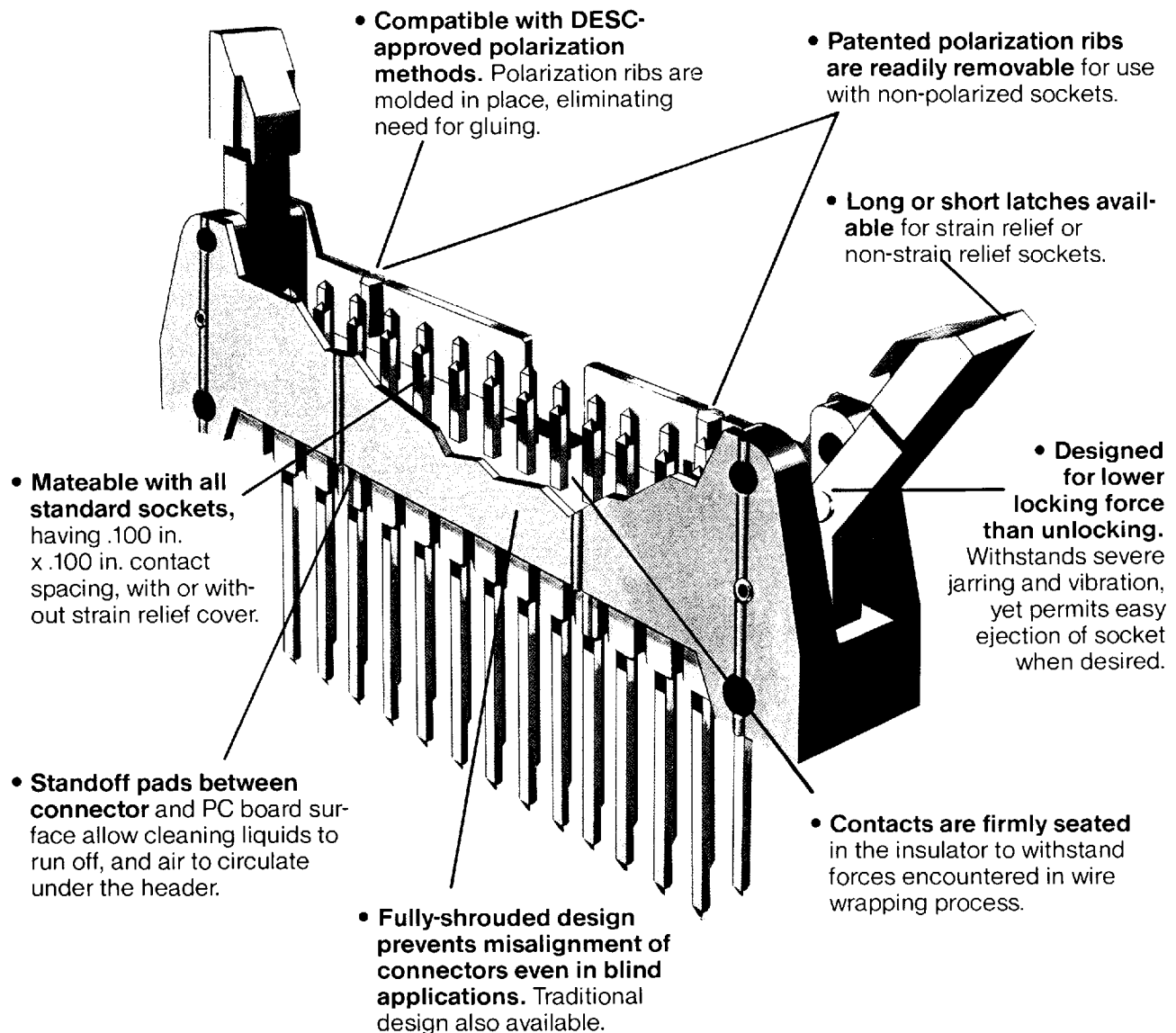
Header connectors are often permanently mounted to PC boards and mate with female socket connectors having a .100 in. (2.54 mm) x .100 in. (2.54 mm) contact spacing.

The headers have male pins on their mating side and offer the designer a choice of either wire-wrap or solder posts in various lengths on the opposing end.

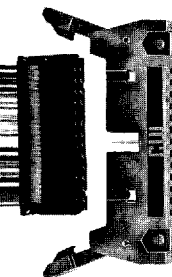
With CW, the designer also can choose either straight or right-angle contacts and allow sockets to mate with headers at right angles or parallel to mating PC board or wire-wrap plane. Optional ejection latches in various sizes are available, to mate with strain relief or non-strain relief sockets.

Polarization ribs are securely molded into place, eliminating the need for gluing polarizing keys to the header base. These ribs are easily removed for applications requiring a non-polarized interconnection.

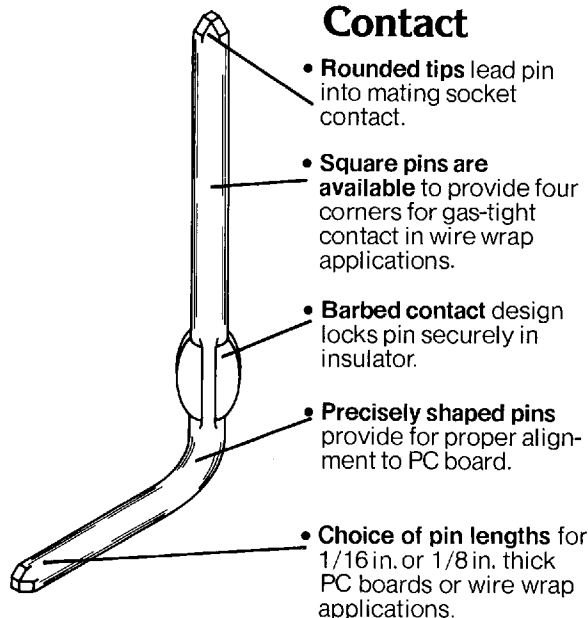
CW headers are Mil-C-83503/20, 21, 24 and 25 approved.



# Header Connectors



## Contact



- **Rounded tips** lead pin into mating socket contact.
- **Square pins are available** to provide four corners for gas-tight contact in wire wrap applications.
- **Barbed contact** design locks pin securely in insulator.
- **Precisely shaped pins** provide for proper alignment to PC board.
- **Choice of pin lengths** for 1/16 in. or 1/8 in. thick PC boards or wire wrap applications.

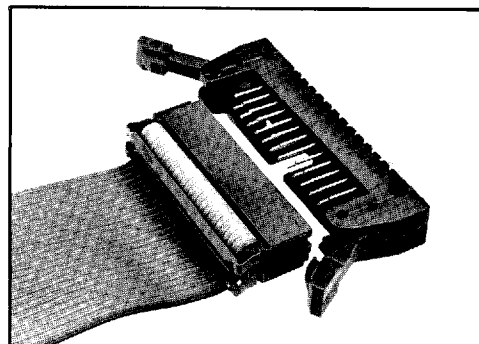
## Header Connector Features

- 10, 14, 16, 20, 26, 34, 40, 50, 60 pin versions
- Available with right angle or straight solder tails for 1/16 in. or 1/8 in. thick PC boards
- Available with right angle or straight wire wrap terminals
- Gold-plated, phosphor bronze contacts, standard; bare CDA 725 alloy contacts, optional
- Rugged, lightweight UL 94V-0 thermoplastic construction

## Ejection Latches

Ejection latches are available for all CW Header connectors. These latches assure secure locking of the Socket to the Header, as well as simple, trouble-free detachment of the mated Socket from the Header. An audible click indicates that Header and Socket are fully mated. The latching surfaces are consistent with DESC requirements for interchangeability.

Two latch sizes are featured—short for non-strain relief sockets and long for strain relief sockets. For others, contact factory. Each latch is held securely in place with a roll pin and can be removed at a work bench or in the field.



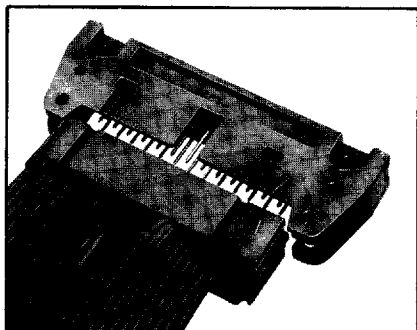
## Polarization

Choose your polarization method from one of three options:

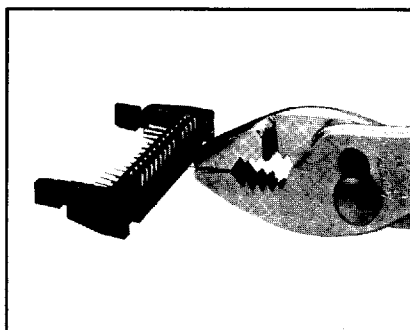
**Method I:** Grooves in sockets CWR-210 and 220 match up with ribs on mating headers. (Mil-C-83503 approved method.) For use with non-polarized sockets, the ribs may be quickly, easily and cleanly removed with a simple tool in the field, at a workbench or at the factory prior to shipment.

**Method II:** Plastic key inserted into socket contact prevents mismatching if corresponding header contact is removed.

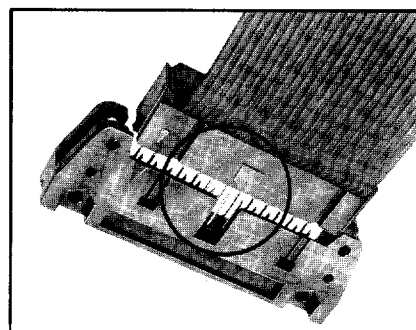
**Method III:** In addition to mating socket grooves and headers slots, central polarizing key on one socket side (CWR-217 and CWR-227) mates with matching central header slot.



Method I



Method II



Method III

**CW INDUSTRIES**

97E ■ 1783950 0001347 776 ■

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