

# Header Connectors

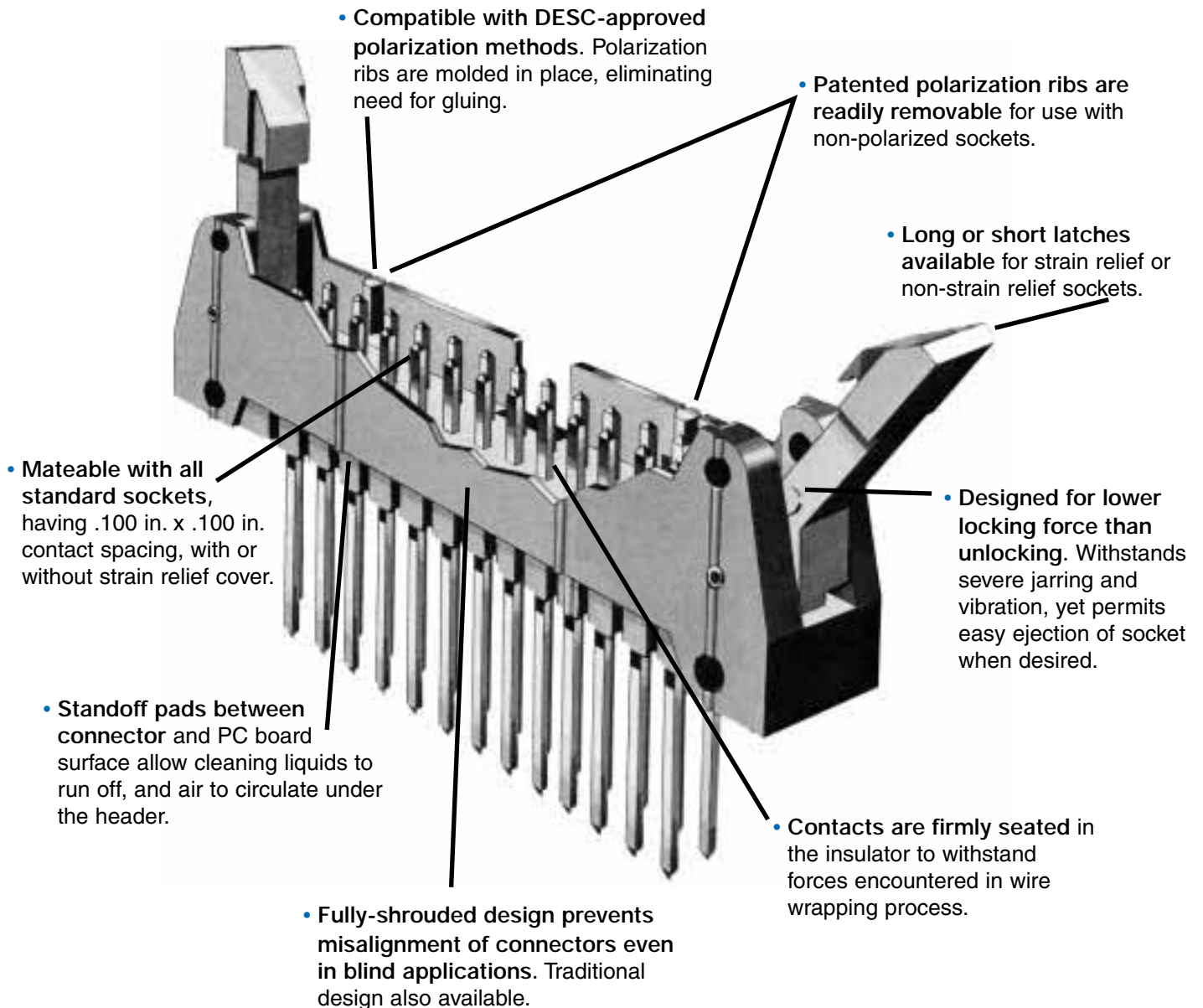
Header connectors are often permanently mounted to PC boards and mate with female socket connectors having a .100 in. (2.54mm) x .100 in. (2.54mm) contact spacing.

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.

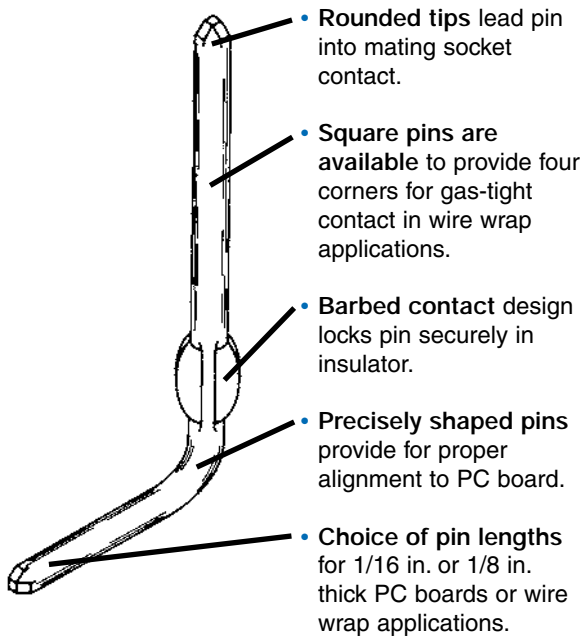
With CW, the designer also can choose either straight or right-angle contacts and allow sockets to mate with headers at right angles or parallel to mating PC board or wire-wrap plane. Optional ejection latches in various sizes are available, to mate with strain relief or non-strain relief sockets.

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-DTL-83503/20, 21, 24 and 25 approved.



## Contact



## 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
- 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-DTL-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.

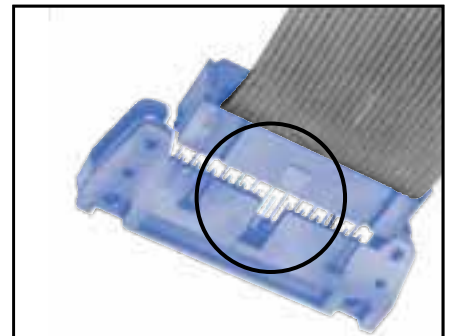
**Method III:** In addition to mating socket grooves and headers slots, central polarizing key on one socket side (CWR-217 and CWR-227) mates with matching central header slot.



Method I



Method II

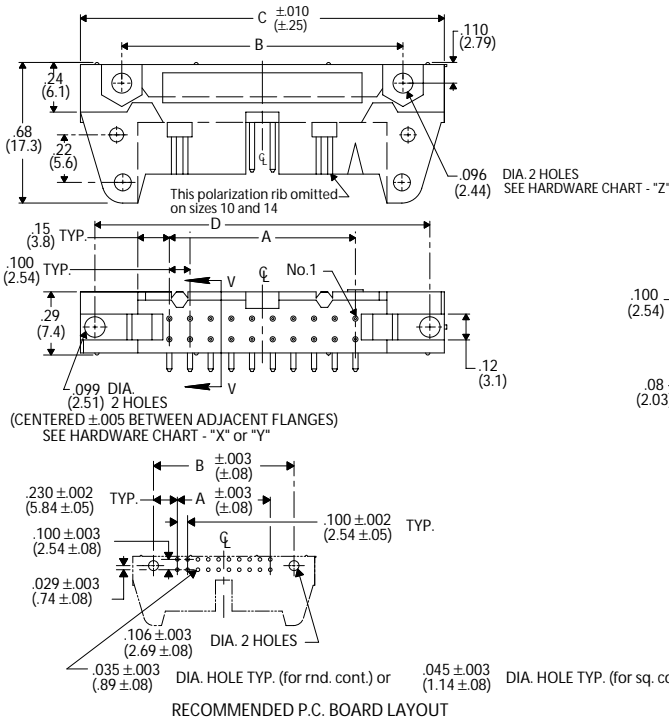


Method III

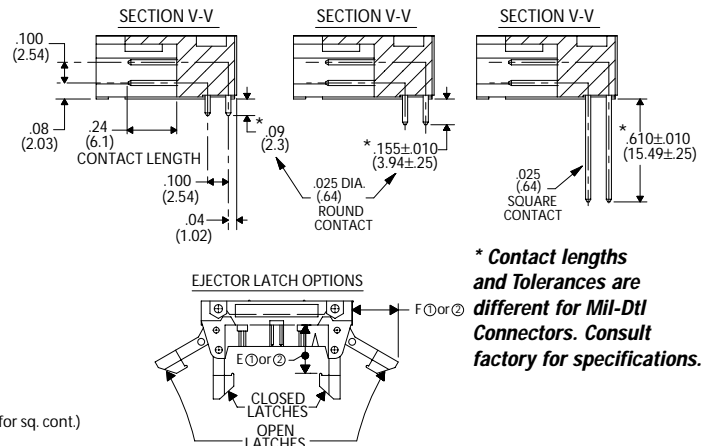
## Engineering Dimensions

### Dimensions

#### Right Angle Header

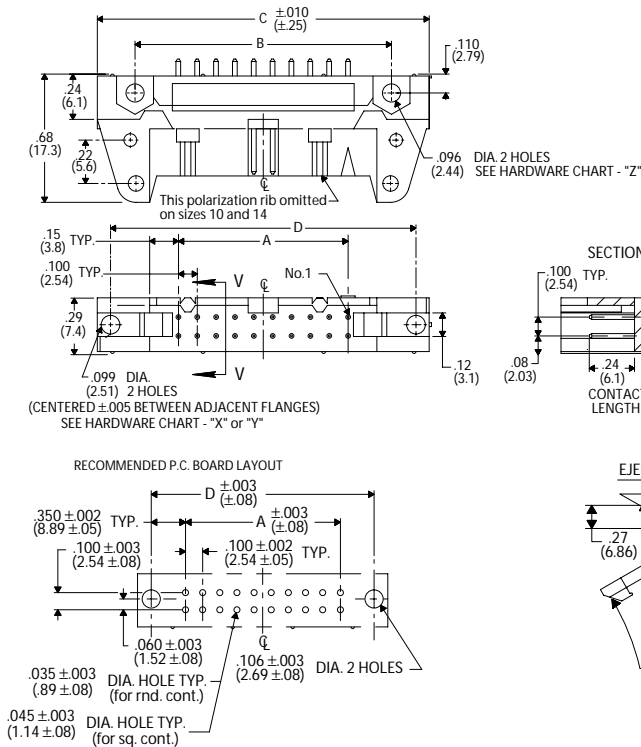


HARDWARE CHART			
TYPE	"X"	"Y"	"Z"
THREAD	2-56 UNC	1-72 UNF	2-56 UNC
HEAD	HEX.	RND.	OPT.

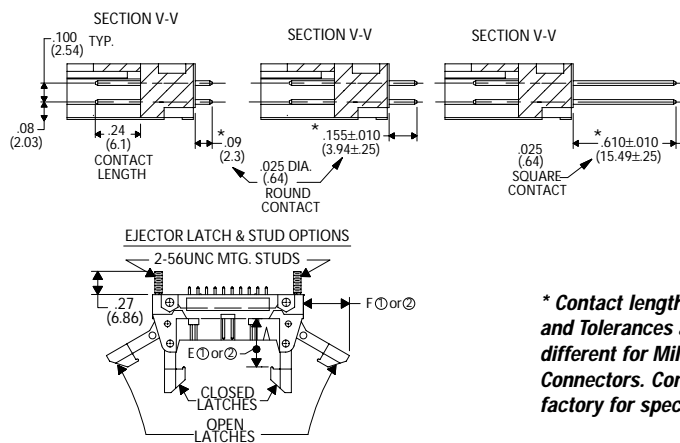


\* Contact lengths and Tolerances are different for Mil-Dtl Connectors. Consult factory for specifications.

#### Straight Header



HARDWARE CHART			
TYPE	"X"	"Y"	"Z"
THREAD	2-56 UNC	1-72 UNF	2-56 UNC
HEAD	HEX.	RND.	OPT.



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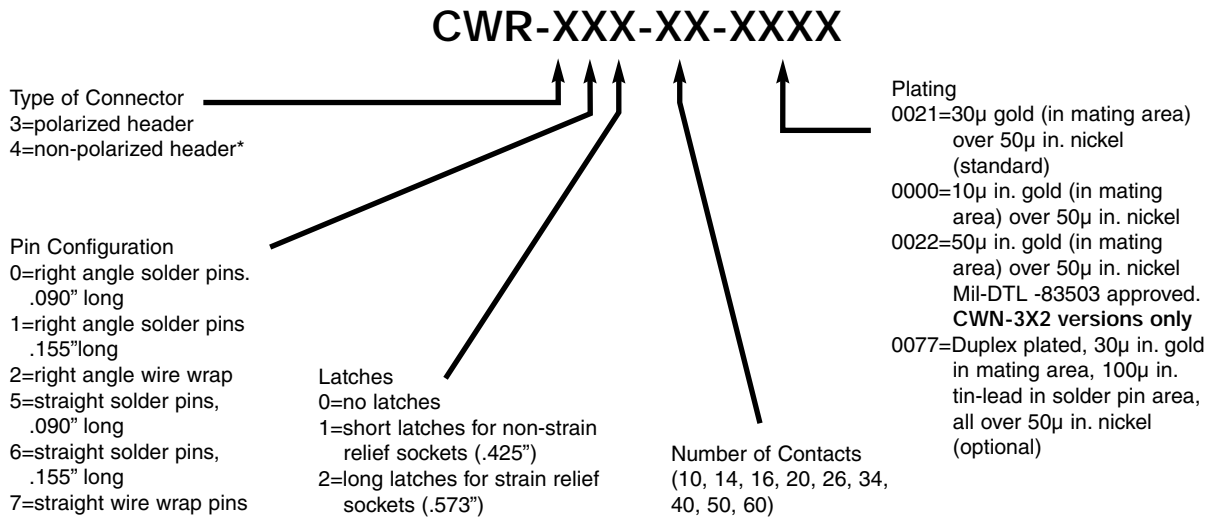
# Specifications and Ordering Information

## Specifications



- Contacts: phosphor bronze standard
- 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-DTL-83503/20, 21, approved

## How to Order Header Connectors



NO. CONT'S	A	B	C	D	E <sup>①</sup>	E <sup>②</sup>	F <sup>①</sup>	F <sup>②</sup>
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)	.425 (10.80)	.573 (14.55)	.40 (10.2)	.51 (12.6)
34	1.600 (40.64)	2.060 (52.32)	2.460 (62.48)	2.300 (58.42)				
40	1.900 (48.26)	2.360 (59.94)	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<sup>①</sup> and F<sup>①</sup> pertains to all headers with short latches

E<sup>②</sup> and F<sup>②</sup> pertains to all headers with long latches

\*Polarizing ribs removed