

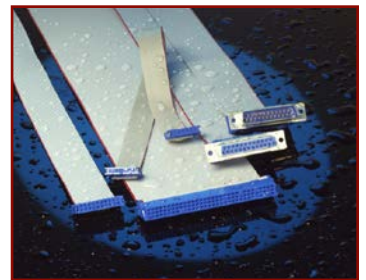
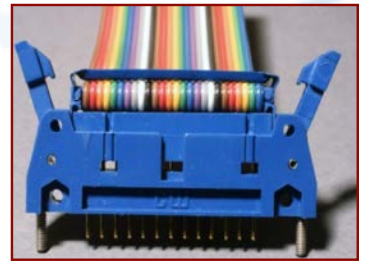
# INSULATION DISPLACEMENT CONNECTORS SELECTION GUIDE



A Unit of Electro Switch Corp



*Your Source for Switches, Connectors, Custom Products & Assemblies*



# WORLD CLASS



CW Industries  
An ISO Company that  
Delivers World Class Quality

- Commercial Insulation Displacement Connectors
- Mil-DTL Insulation displacement Connectors
- Custom Designed Connectors & Assembly



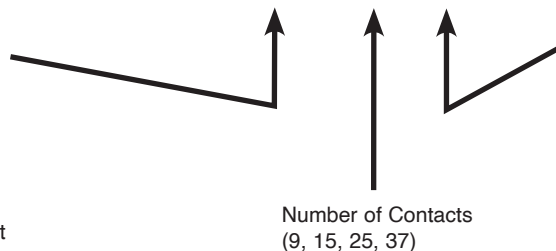
ALL PLASTIC D-SUBMINIATURE	Height "	Width "	Mounting Hole Length "			
			PIN COUNT			
			9	15	25	37
CWR-180-XX-00XX	1.040	0.490	0.984	1.312	1.852	2.500
CWR-182-XX-00XX	1.040	0.490	0.984	1.312	1.852	2.500
CWR-181-XX-00XX	1.040	0.490	0.984	1.312	1.852	2.500
CWR-183-XX-00XX	1.040	0.490	0.984	1.312	1.852	2.500

## How to Order All-Plastic D-Subminiature Connectors

### Type of Connector

- 182=D-Subminiature for cable end terminations, pin contact (Standard)
- 183=D-Subminiature for cable end terminations, socket contact (Standard)
- 180=D-Subminiature connector for daisy chain applications, pin contact
- 181=D-Subminiature connector for daisy chain applications, socket contact

### CWR-XXX-XX-00XX



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

Number of Contacts  
(9, 15, 25, 37)

**Example:** CWR-180-15-0003 is an all plastic pin contact D Sub connector for daisy chain applications with 15 contacts plated with 100 $\mu$  in of tin lead.



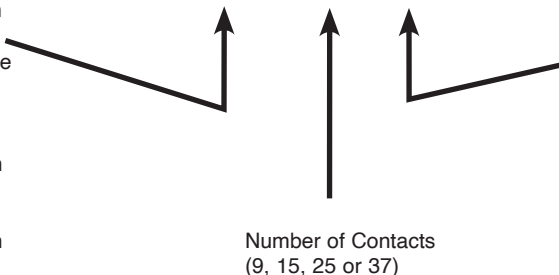
D SUBMINIATURE WITH METAL FACE AND SHIELDED	Height "	Width "	Mounting Hole Length "			
			PIN COUNT			
			9	15	25	37
CWR-280-XX-00XX	1.040	0.530	0.984	1.312	1.852	2.500
CWR-282-XX-00XX	1.040	0.530	0.984	1.312	1.852	2.500
CWR-281-XX-00XX	1.040	0.530	0.984	1.312	1.852	2.500
CWR-283-XX-00XX	1.040	0.530	0.984	1.312	1.852	2.500

## How to Order D-Subminiature Connectors with Metal Face

### Type of Connector

- 282=D-Subminiature with metal face for cable end terminations, pin contact (Standard)
- 283=D-Subminiature with metal face for cable end terminations, socket contact (Standard)
- 280=D-Subminiature connector with metal face for daisy chain applications, pin contact
- 281=D-Subminiature connector with metal face for daisy chain applications, socket contact

### CWR-XXX-XX-00XX



- ### Plating
- 0021=30 $\mu$  in. gold (in mating area) over 50 $\mu$  in. nickel (standard)
  - 0000=10 $\mu$  in. gold (in mating area) over 50 $\mu$  in. nickel
  - 0022=50 $\mu$  in. gold (in mating area) over 50 $\mu$  in. nickel Mil-DTL-24308 approved.
  - 0003=100 $\mu$  in. tin-lead

Number of Contacts  
(9, 15, 25 or 37)

**Example:** CWR-280-15-0003 is a D Sub connector with metal face for daisy chain applications with 15 contacts plated with 100 $\mu$  in of tin lead.



SOCKET CONNECTORS	Height "	Width "	Overall Length "								
			PIN COUNT								
			10	14	16	20	26	34	40	50	60
CWR-210-XX-00XX	0.449	0.240	0.677	0.877	0.977	1.177	1.477	1.877	2.177	2.677	3.177
CWR-217-XX-00XX	0.449	0.240	0.677	0.877	0.977	1.177	1.477	1.877	2.177	2.677	3.177
CWR-220-XX-00XX	0.584	0.240	0.677	0.877	0.977	1.177	1.477	1.877	2.177	2.677	3.177
CWR-227-XX-00XX	0.584	0.240	0.677	0.877	0.977	1.177	1.477	1.877	2.177	2.677	3.177

## How to Order Socket Connectors

Type of Connector  
 210=Socket connector with strain relief (standard)  
 220=Socket connector without strain relief (standard)  
 217=Socket connector with central polarizing key and strain relief  
 227=Socket connector with central polarizing key, but without strain relief.

**CWR-XXX-XX-00XX**

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

Plating  
 0021=30μ in. 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-DTL-83503/7 approved, CWR-210 versions only**  
 0003=100μ in. tin-lead

**Example:** CWR-210-14-0003 is a Socket Connector with strain relief with 14 contacts plated with 100μ in of tin lead.



HEADER CONNECTORS	Height "	Width "	Overall Length "								
			PIN COUNT								
			10	14	16	20	26	34	40	50	60
CWN-3XX-XX-00XX	0.680	0.290	1.260	1.460	1.560	1.760	2.060	2.460	2.760	3.260	3.760
CWN-4XX-XX-00XX	0.680	0.290	1.260	1.460	1.560	1.760	2.060	2.460	2.760	3.260	3.760

## How to Order Header Connectors

**CWN-XXX-XX-00XX**

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

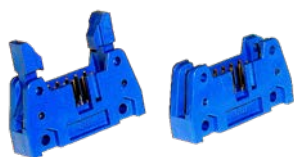
Pin Configuration  
 0=right angle solder pins, .090" long  
 1=right angle solder pins .155" long  
 2=right angle wire wrap  
 5=straight solder pins, .090" long  
 6=straight solder pins, .155" long  
 7=straight wire wrap pins, .610" long

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, 60)

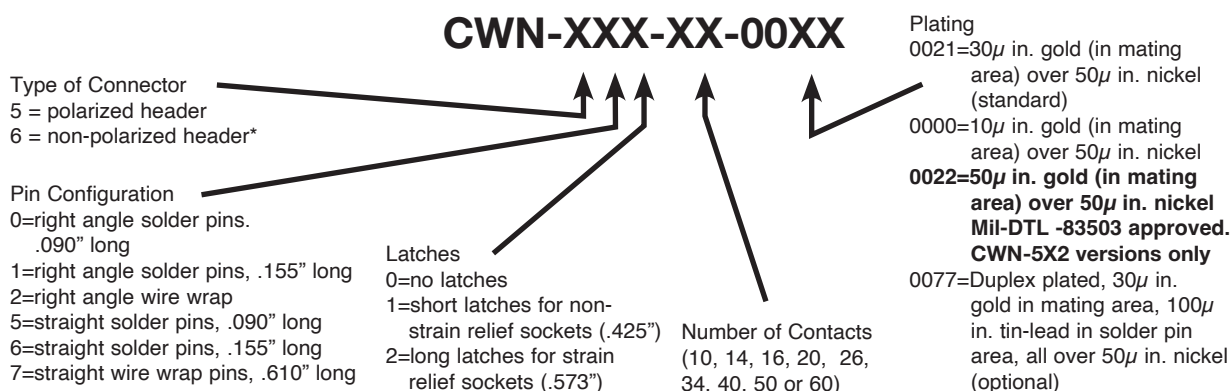
Plating  
 0021=30μ gold (in mating area) over 50μ in. nickel (standard)  
 0000=10μ in. gold (in mating area) over 50μ in. nickel  
**0022=50μ in. gold (in mating area) over 50μ in. nickel Mil-DTL -83503 approved. CWN-3X2 versions only**  
 0077=Duplex plated, 30μ in. gold in mating area, 100μ in. tin-lead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

**Example:** CWN-300-14-0021 is a Polarized Header with right angle solder pins .090" long with no latches. There are 14 contacts plated with 30μ in gold over 50μ in nickel.



FULLY SHROUDED HEADER CONNECTORS	Height "	Width "	Overall Length "								
			PIN COUNT								
			10	14	16	20	26	34	40	50	60
CWN-5XX-XX-00XX	0.680	0.350	1.260	1.460	1.560	1.760	2.060	2.460	2.760	3.260	3.760
CWN-6XX-XX-00XX	0.680	0.350	1.260	1.460	1.560	1.760	2.060	2.460	2.760	3.260	3.760

## How to Order Fully Shrouded Header Connectors

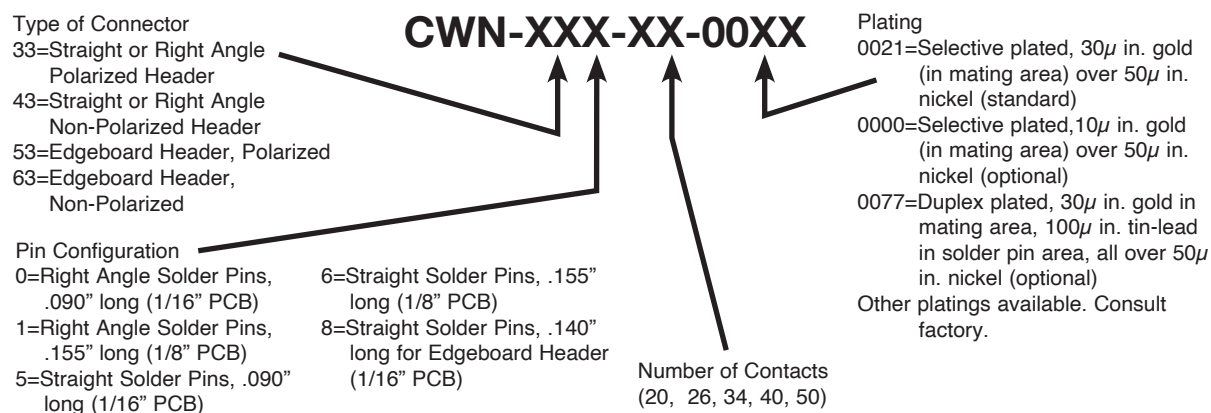


**Example:** CWN-520-14-0000 is a Fully Shrouded Polarized Header Connector with a 14 pin right angle wire wrap pin configuration. Plating is 10μ in gold over 50μ in nickel.



LOW PROFILE BOX HEADERS	Height "	Width "	Overall Length "				
			PIN COUNT				
			20	26	34	40	50
CWN-33X-XX-00XX	0.340	0.350	1.300	1.600	2.000	2.300	2.800
CWN-43X-XX-00XX	0.340	0.350	1.300	1.600	2.000	2.300	2.800
CWN-53X-XX-00XX	0.340	0.350	1.300	1.600	2.000	2.300	2.800
CWN-63X-XX-00XX	0.340	0.350	1.300	1.600	2.000	2.300	2.800

## How to Order Low Profile Box Headers

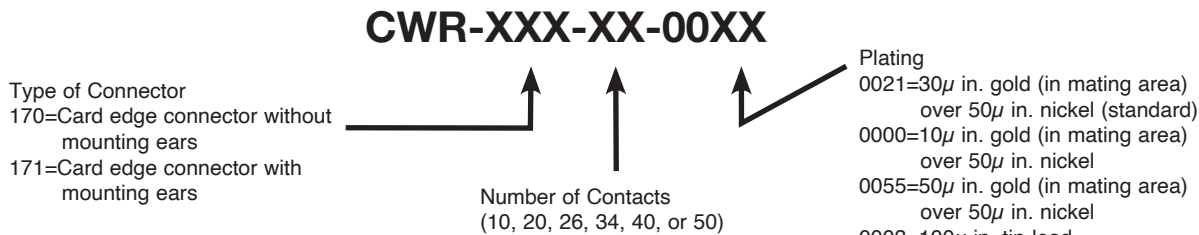


**Example:** CWN-335-20-0021 is a Low Profile Box Header with straight solder pins .090" long. There are 20 contacts that are selectively plated with 30μ in gold in the mating area over 50μ in nickel.



CARD EDGE CONNECTORS	Closed Height "	Width "	Overall Length "					
			PIN COUNT					
			10	20	26	34	40	50
CWR-170-XX-00XX	0.710	0.430	0.976	1.476	1.776	2.176	2.476	2.976
CWR-171-XX-00XX	0.710	0.430	1.500	2.000	2.300	2.700	3.000	3.900

## How to Order Card Edge Connectors

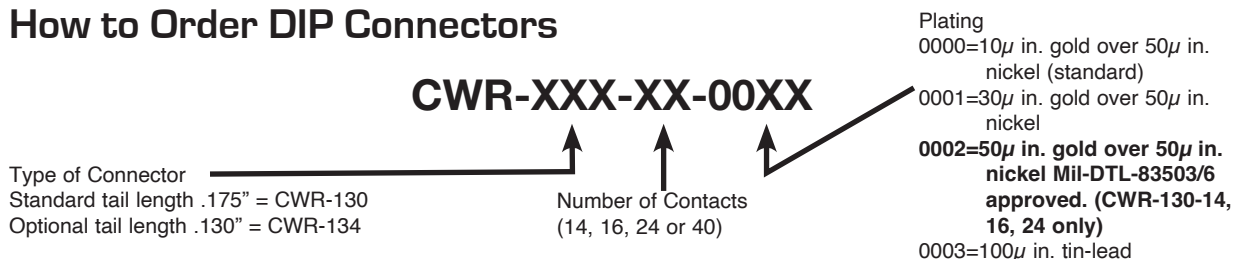


**Example:** CWR-170-10-0021 is a 10 pin Card Edge Connector with 30μ in gold over 50μ in nickel.



DIP CONNECTORS	Closed Height "	14 & 16 Width "	24 & 40 Width "	Overall Length "			
				PIN COUNT			
					14	16	24
CWR-130-XX-00XX	0.248	0.420	0.720	0.754	0.854	1.264	2.067
CWR-134-XX-00XX	0.248	0.420	0.720	0.754	0.854	1.264	2.067

## How to Order DIP Connectors

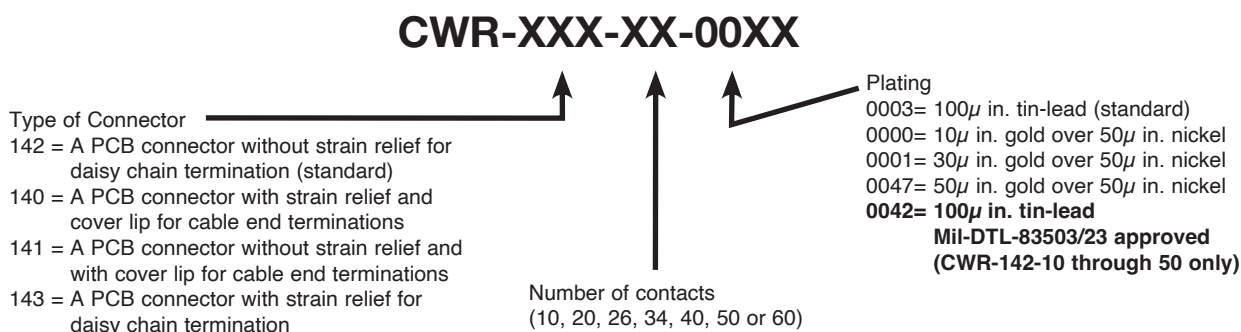


**Example:** CWR-130-16-0002 is for a 16-pin DIP connector with .175 in. tails and 50μ in. gold over 50μ in. nickel contacts.



PCB CONNECTORS	Height "	Width "	Overall Length "						
			PIN COUNT						
				10	20	26	34	40	50
CWR-140-XX-00XX	0.263	0.500	0.700	1.200	1.500	1.900	2.200	2.700	3.200
CWR-141-XX-00XX	0.263	0.500	0.700	1.200	1.500	1.900	2.200	2.700	3.200
CWR-142-XX-00XX	0.263	0.500	0.700	1.200	1.500	1.900	2.200	2.700	3.200
CWR-143-XX-00XX	0.263	0.500	0.700	1.200	1.500	1.900	2.200	2.700	3.200

## How to Order PCB Connectors



**Example:** CWR-140-20-0003 is a 20 pin PCB Connector with strain relief and cover lip with 100μ in of tin lead.



# INNOVATION EVERY STEP OF THE WAY

CW Insulation Displacement Connectors are designed to provide a highly reliable, long term, connection at every position. The CW connectors feature a unique contact design that creates an absolute gas tight connection between the contact and the conductor. Other significant design advantages of the CW product includes ruggedness of construction, ease of assembly, integral strain relief and polarization options, choice of contact materials and plating finishes.

The complete series of DIP, PCB, Socket, Header, Card Edge and D-Subminiature Connectors meets both commercial and applicable Military Specifications and offers direct interchangeability with other industry standard Insulation Displacement Connectors. Many of CW's Insulation Displacement Connectors meet MIL-DTL-83503 specifications as listed on the US Defense Department Qualified Product List.

Selection decisions on IDC's present opportunities for significant improvements in quality, interchangeability and cost effective handling and assembly. CW connector products are recognized by customers throughout the world for their availability, reliability and superior performance.

## CUSTOM ASSEMBLY

CW Industries is a vertically integrated manufacturing company that offers small, to large run production of custom electromechanical assemblies, wire harnesses and related components used in the automotive, aerospace, appliance, lawn and garden, medical and general industrial marketplace

With in- house manufacturing and offshore capabilities, we have a strong supply-chain network facilitating easy procurement of components. Our full range of services includes the design, tooling, production and testing to support your JIT delivery requirements.

From a simple wire harness design to a custom build to print assembly, we can handle a wide range of applications, cost-effectively and with the highest levels of quality and customer support.

## OTHER CW INDUSTRIES PRODUCTS...

CW Industries supplies leading industrial, consumer and defense electronics manufacturers with complex electromechanical slide, rocker and pushbutton switches; insulation displacement and MIL SPEC connectors; and a variety of custom switches, custom connectors and assemblies that require a high level of precision, performance and reliability.

**Visit our website at [WWW.CWIND.COM](http://WWW.CWIND.COM) for full product information, prints and downloads.**



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