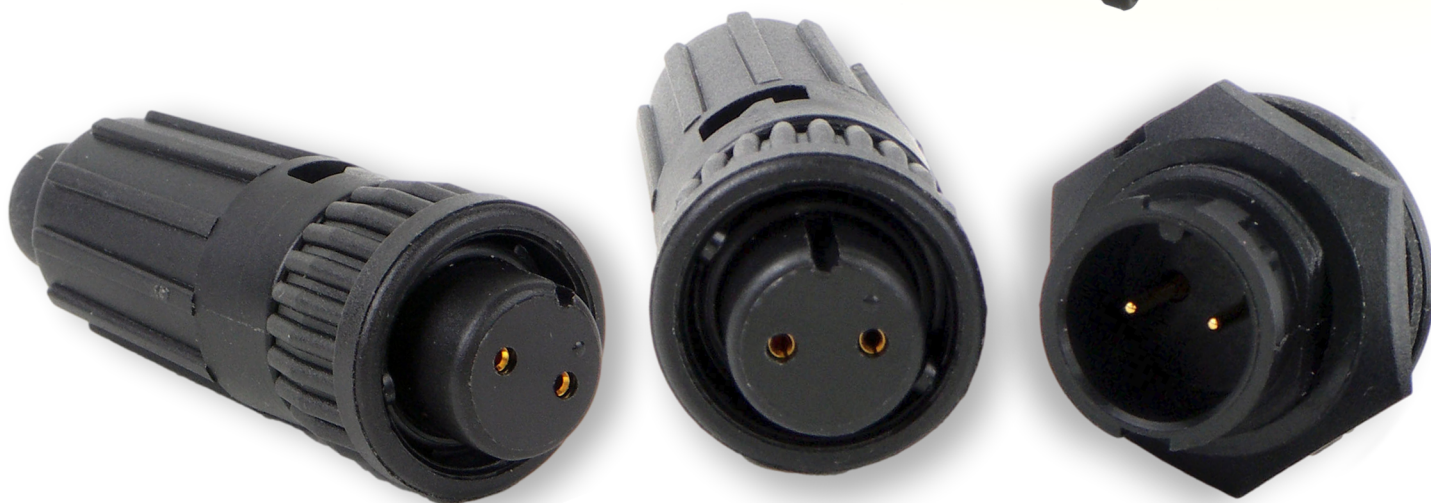




**THE DATASHEET OF**  
**7281-6PG-300**



MINI-CON-X<sup>®</sup>  
**SEALED CONNECTORS**  
AND CABLES



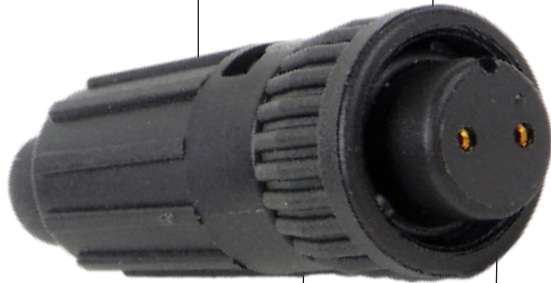
**Switchcraft<sup>®</sup>**  
**CONXALL<sup>®</sup>**

HARSH ENVIRONMENT CONNECTIVITY SOLUTIONS

# Mini-Con-X® Sealed Connectors

Thousands of configurations are available up to 10 contacts with a variety of options

Coupling rings have overriding locking features to prevent loosening or separation of connector



Mixed contact styles also available

Available as field installable connectors or factory molded cable assemblies

Available with solder, crimp, PC mount, and right angle PC mount style contacts

## CONXALL® PRODUCT

The Mini Con X® series from Conxall® sets the standard for sealed circular connectors. It is built to withstand harsh environments with an IP67/IP69K seal rating, and a 600V voltage rating makes it an ideal solution for power or signal. Thousands of configurations are available up to 10 contacts, including standard off the shelf or custom molded cable assemblies.

**IP67/IP69K**  
RATED WATER  
RESISTANCE

The Con-X® series is sealed to IP67/IP69K for harsh environments when used with a molded cable assembly.



**600V VOLTAGE**  
RATING

600V voltage rating makes it an ideal solution for power or signal.



**CONXALL**  
QUALITY

Made in USA to the high standards that have made Conxall® the leading name in harsh environment connectors.

## MINI-CON-X<sup>®</sup> LINE



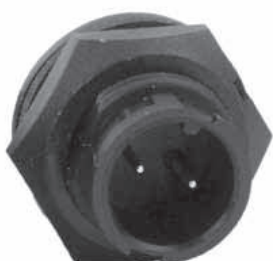
**CABLE END - SOCKET**  
MATES WITH PANEL MOUNT AND  
CABLE TO CABLE



**CABLE END - PIN**  
MATES WITH PANEL MOUNT AND  
CABLE TO CABLE



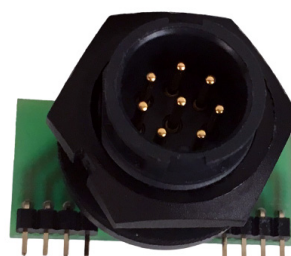
**CABLE TO CABLE / INLINE - PIN**  
MATES WITH CABLE END



**PANEL MOUNT - PIN**  
MATES WITH CABLE END



**PANEL MOUNT - SOCKET**  
MATES WITH CABLE END



**RIGHT ANGLE PCB MOUNT - WIDE**  
MATES WITH CABLE END



**RIGHT ANGLE PCB MOUNT - NARROW**  
MATES WITH CABLE END



**MIXED SIGNAL/POWER- CABLE END**  
MATES WITH PANEL MOUNT AND  
CABLE TO CABLE



**MIXED SIGNAL/POWER- CABLE TO CABLE**  
MATES WITH PANEL MOUNT AND  
CABLE TO CABLE



**MIXED SIGNAL/POWER - PANEL MOUNT**  
MATES WITH CABLE END

# Mini-Con-X® Sealed Connectors



**MOLDED RIGHT ANGLE CABLE ASSEMBLY**  
FLEX RELIEF STYLE



**MOLDED CABLE TO CABLE ASSEMBLY**  
FLEX RELIEF STYLE



**MOLDED CABLE END ASSEMBLY**  
FLEX RELIEF STYLE



**MOLDED CABLE END ASSEMBLY**  
BULLET STYLE



**MOLDED CABLE TO CABLE ASSEMBLY**  
BULLET STYLE



**MOLDED RIGHT ANGLE CABLE ASSEMBLY**  
BULLET STYLE



**DUST CAP**  
P/N - 6295



**IP RATED LOCKING CAP**  
P/N - 6295P-W



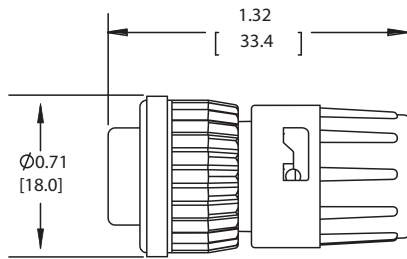
**IP RATED CAP WITH LANYARD**  
P/N - 6295N-WL

**INSTA-CLICK®**  
**AVAILABLE**

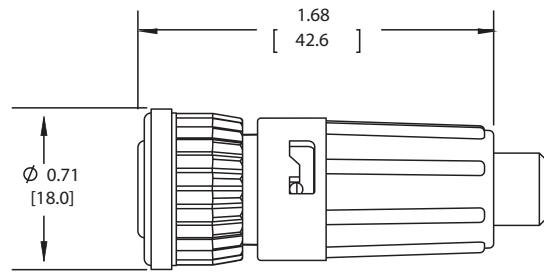
- Automatic Positive Lock
- IP68 Seal Rating
- UL F1 Rated UV Resistance



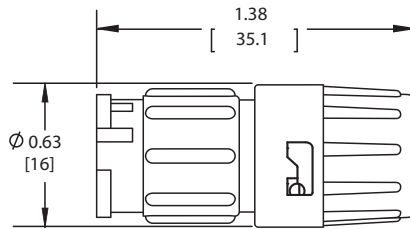
## FIELD INSTALLABLE KITS



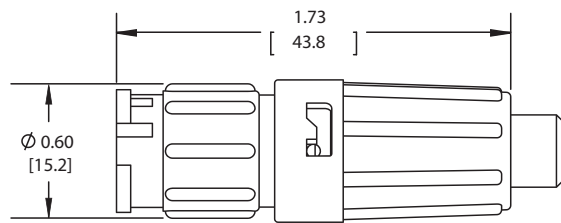
**6XXX-XXG-3XX**  
FIELD INSTALLABLE  
CABLE CONNECTOR  
TWIST LOCK BACKSHELL  
TYPE 3-SHORT



**6XXX-XXG-5XX**  
FIELD INSTALLABLE  
CABLE CONNECTOR  
TWIST LOCK BACKSHELL  
TYPE 5-LONG

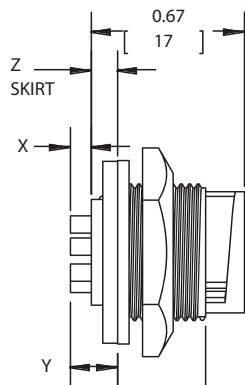


**8XXX-XXG-3XX**  
FIELD INSTALLABLE  
CABLE TO CABLE CONNECTOR  
TWIST LOCK BACKSHELL  
TYPE 3-SHORT

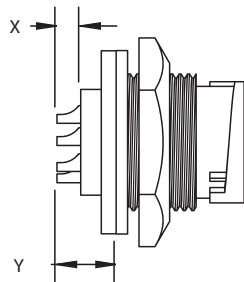


**8XXX-XXG-5XX**  
FIELD INSTALLABLE  
CABLE TO CABLE CONNECTOR  
TWIST LOCK BACKSHELL  
TYPE 5-LONG

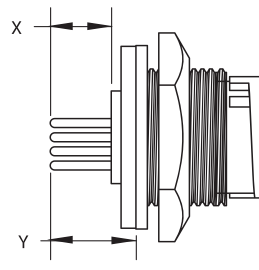
## PANEL MOUNT ASSEMBLY KITS



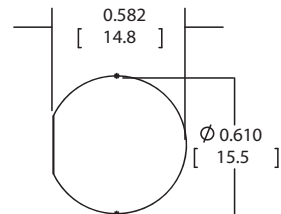
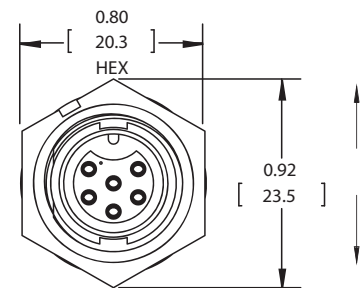
**7X80-XXG-3XX**  
PANEL MOUNT CONNECTOR  
CRIMP



**7X82-XXG-3XX**  
PANEL MOUNT CONNECTOR  
SOLDER CUP



**7XXX-XXG-3XX**  
PANEL MOUNT CONNECTOR  
PC TAIL

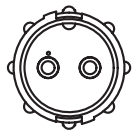


RECOMMENDED  
PANEL CUT-OUT  
TOLERANCE:  $\pm 0.003$  [0.08]

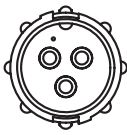
\*X, Y, Z - Consult Factory. All dimensions are for reference only. Units shown: in[mm].

# Mini-Con-X® Sealed Connectors

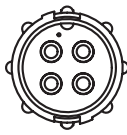
## PANEL MOUNT / CABLE TO CABLE CONNECTORS Front View | Wire View



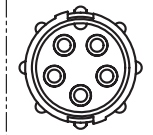
2 POSITION  
#16 PIN & SOCKET  
CONTACT



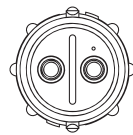
3 POSITION  
#16 PIN & SOCKET  
CONTACT



4 POSITION  
#16 PIN & SOCKET  
CONTACT



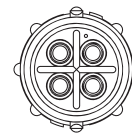
5 POSITION  
#16 PIN  
CONTACT



2 POSITION  
#16 PIN & SOCKET  
CONTACT



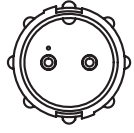
3 POSITION  
#16 PIN & SOCKET  
CONTACT



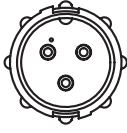
4 POSITION  
#16 PIN & SOCKET  
CONTACT



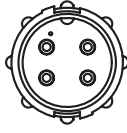
5 POSITION  
#16 PIN  
CONTACT



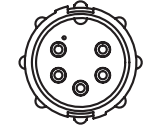
2 POSITION  
#20 PIN & SOCKET  
CONTACT



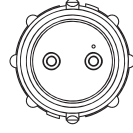
3 POSITION  
#20 PIN & SOCKET  
CONTACT



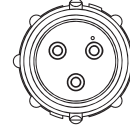
4 POSITION  
#20 PIN & SOCKET  
CONTACT



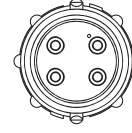
5 POSITION  
#20 PIN & SOCKET  
CONTACT



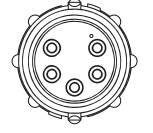
2 POSITION  
#20 PIN & SOCKET  
CONTACT



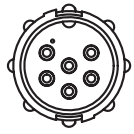
3 POSITION  
#20 PIN & SOCKET  
CONTACT



4 POSITION  
#20 PIN & SOCKET  
CONTACT



5 POSITION  
#20 PIN & SOCKET  
CONTACT



6 POSITION  
#20 PIN & SOCKET  
CONTACT



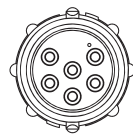
7 POSITION  
#20 PIN  
CONTACT



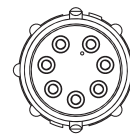
8 POSITION  
#20 PIN  
CONTACT



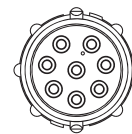
9 POSITION  
#22 PIN & SOCKET  
CONTACT



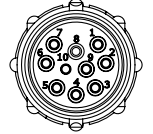
6 POSITION  
#20 PIN & SOCKET  
CONTACT



7 POSITION  
#20 PIN  
CONTACT



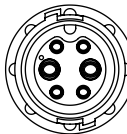
8 POSITION  
#20 PIN  
CONTACT



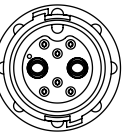
9 POSITION  
#22 PIN & SOCKET  
CONTACT



10 POSITION  
#22 PIN & SOCKET  
CONTACT

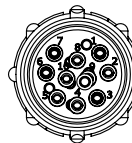


6 POSITION  
2#16/4#20  
PIN & SOCKET

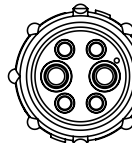


8 POSITION  
2#16#/6#26  
PIN & SOCKET

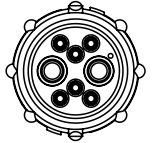
## CABLE CONNECTORS Front View | Wire View



10 POSITION  
#22 PIN & SOCKET  
CONTACT



6 POSITION  
2#16/4#20  
PIN & SOCKET



8 POSITION  
2#16/6#26  
PIN & SOCKET



2 POSITION  
#16 PIN & SOCKET  
CONTACT



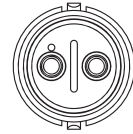
3 POSITION  
#16 PIN & SOCKET  
CONTACT



4 POSITION  
#16 PIN & SOCKET  
CONTACT



5 POSITION  
#16 SOCKET  
CONTACT



2 POSITION  
#16 PIN & SOCKET  
CONTACT



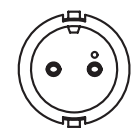
3 POSITION  
#16 PIN & SOCKET  
CONTACT



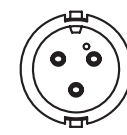
4 POSITION  
#16 PIN & SOCKET  
CONTACT



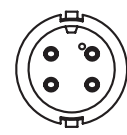
5 POSITION  
#16 SOCKET  
CONTACT



2 POSITION  
#20 PIN & SOCKET  
CONTACT



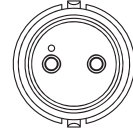
3 POSITION  
#20 PIN & SOCKET  
CONTACT



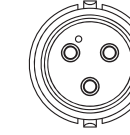
4 POSITION  
#20 PIN & SOCKET  
CONTACT



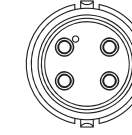
5 POSITION  
#20 PIN & SOCKET  
CONTACT



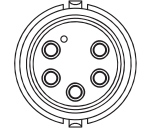
2 POSITION  
#20 PIN & SOCKET  
CONTACT



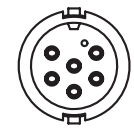
3 POSITION  
#20 PIN & SOCKET  
CONTACT



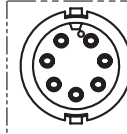
4 POSITION  
#20 PIN & SOCKET  
CONTACT



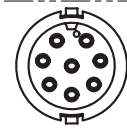
5 POSITION  
#20 PIN & SOCKET  
CONTACT



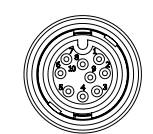
6 POSITION  
#20 PIN & SOCKET  
CONTACT



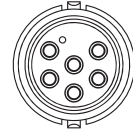
7 POSITION  
#20 SOCKET  
CONTACT



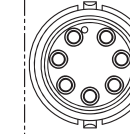
8 POSITION  
#20 SOCKET  
CONTACT



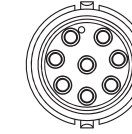
9 POSITION  
#22 PIN & SOCKET  
CONTACT



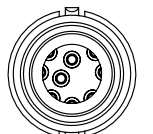
6 POSITION  
#20 PIN & SOCKET  
CONTACT



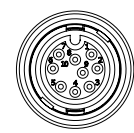
7 POSITION  
#20 SOCKET  
CONTACT



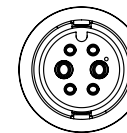
8 POSITION  
#20 SOCKET  
CONTACT



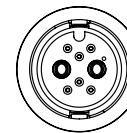
9 POSITION  
#22 PIN & SOCKET  
CONTACT



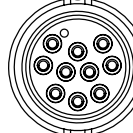
10 POSITION  
#22 PIN & SOCKET  
CONTACT



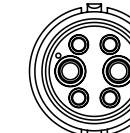
6 POSITION  
2#16/4#20  
PIN & SOCKET



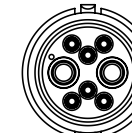
8 POSITION  
2#16#/6#26  
PIN & SOCKET



10 POSITION  
#22 PIN & SOCKET  
CONTACT

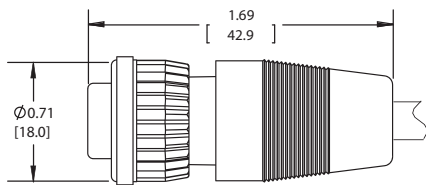


6 POSITION  
2#16/4#20  
PIN & SOCKET

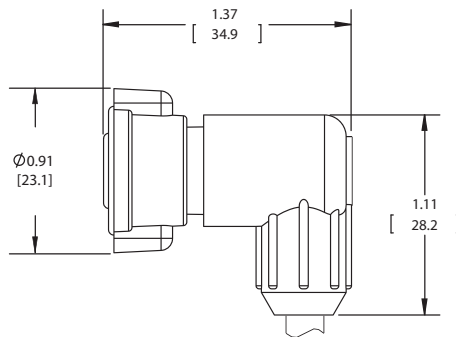


8 POSITION  
2#16#/6#26  
PIN & SOCKET

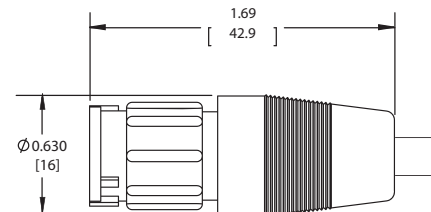
## CUSTOM MOLDED CABLE ASSEMBLIES



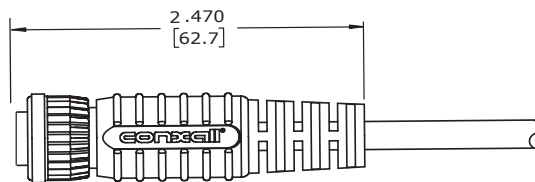
**6XXX-XXG**  
CUSTOM CABLE CONNECTOR  
STRAIGHT OVERMOLDED  
BULLET STYLE



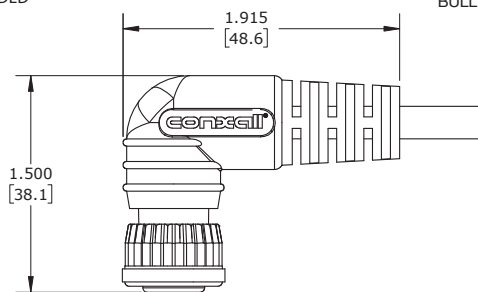
**6XXX-XXG**  
CUSTOM CABLE CONNECTOR  
RIGHT ANGLE OVERMOLDED  
BULLET STYLE



**8XXX-XXG**  
CUSTOM CABLE TO CABLE CONNECTOR  
STRAIGHT OVERMOLDED  
BULLET STYLE



**CA6280XPXXX90**  
CUSTOM CABLE CONNECTOR  
STRAIGHT OVERMOLDED  
FLEX RELIEF STYLE



**CA6280XPXXX90**  
CUSTOM CABLE CONNECTOR  
RIGHT ANGLE OVERMOLDED  
FLEX RELIEF STYLE

Configuration	Mini-Con-X® Part Number
Straight, 2-pos, Male, 2 Meter	CA62802P07990
Straight, 2-pos, Female, 2 Meter	CA62802S07990
Straight, 3-pos, Male, 2 Meter	CA62803P07990
Straight, 3-pos, Female, 2 Meter	CA62803S07990
Straight, 4-pos, Male, 2 Meter	CA62804P07990
Straight, 4-pos, Female, 2 Meter	CA62804S07990
Straight, 5-pos, Male, 2 Meter	CA62805P07990
Straight, 5-pos, Female, 2 Meter	CA62805S07990
Straight, 6-pos, Male, 2 Meter	CA62806P07990
Straight, 6-pos, Female, 2 Meter	CA62806S07990
Straight, 8-pos, Female, 2 Meter	CA62808S07990
Right Angle, 2-pos, Male, 2 Meter	CARA62802P07990
Right Angle, 2-pos, Female, 2 Meter	CARA62802S07990
Right Angle, 3-pos, Male, 2 Meter	CARA62803P07990
Right Angle, 3-pos, Female, 2 Meter	CARA62803S07990
Right Angle, 4-pos, Male, 2 Meter	CARA62804P07990
Right Angle, 4-pos, Female, 2 Meter	CARA62804S07990
Right Angle, 5-pos, Male, 2 Meter	CARA62805P07990
Right Angle, 5-pos, Female, 2 Meter	CARA62805S07990

## PART NUMBER TO ORDER

X X X XX - XXG - XXX X

Special Features

**BLANK** - Standard Material  
**"W"** - UV Resistant Material

Special Features

**"W"** - Winged Coupling Nut

Connector Type

**6** - Cable End  
**7** - Panel mount  
**8** - Cable to Cable

Backshell Style - Snap Lock

with Grommet (Cable O.D. Range)

**3DC - 3 Grommet Sizes**

**3XX** - Short Backshell (2&3 Contacts Only)

**"11"** - 0.09" - 0.14" [2.3 to 3.6mm]

**"15"** - 0.15" - 0.17" [3.8 to 4.3mm]

**"18"** - 0.18" - 0.20" [4.6 to 5.1mm]

**"21"** - 0.21" - 0.23" [5.3 to 5.8mm]

**5XX** - Long Backshell (2-10 Contacts)

**"13"** - 0.13" - 0.15" [3.3 to 3.8mm]

**"16"** - 0.16" - 0.18" [4.1 to 4.6mm]

**"19"** - 0.19" - 0.21" [4.8 to 5.3mm]

**"22"** - 0.22" - 0.25" [5.6 to 6.3mm]

**"26"** - 0.25" - 0.27" [6.3 to 6.8mm]

**"28"** - 0.26" - 0.29" [6.6 to 7.2mm]

Contact Size

**2** - #20  
**3** - #16  
**8** - #22  
**A** - 2 #16 / 6 #26  
**C** - 2 #16 / 4 #20

Panel Mount

with Hex Nut & Gasket

**3ES** - with Epoxy

**300** - without Epoxy

Contact Style

**8X** - **"0"** - Crimp  
**"1"** - PC Tail Short\*  
**"2"** - Solder  
**9X** - Extended PC Tail  
**"1"** - #20 PC Tail Medium\*  
**"2"** - #20 PC Tail Long\*

Gold Plated

No. & Type of Contacts

Pin or Socket

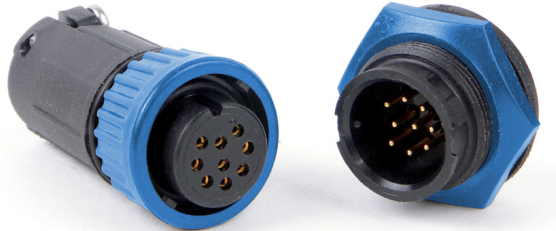
**\*Consult factory for length and diameter of PC Tail. Additionally, alternative colors and materials are available. Mixed contact sizes and #22 contacts only available with "W" UV Resistant material. Visit [Switchcraft.com](http://Switchcraft.com) for Insta-Click® ordering code**

## COLOR CODED CON-X® LINE



**CC2**

**CH2**



**CC3**

**CH3**



**CC5**

**CH5**



**CC7**

**CH7**

### ORDERING CODE

Added to the end of your standard Con-X part number

When ordering, use the following code to specify your special feature:

Special Features

**CXX**= Color Options

└─ Color Designator - see below

└─ Part Designator - see below

└─ Special Feature Designator - see below

Special Feature Designator = C (Color Option)

Part Designator = H (Hex Nut)

C (Coupling Ring-standard)\*

Color Designator= 2 (Red)

3 (Blue)

5 (Yellow)

7 (Green)

\*Winged coupling ring available on request.  
Contact factory for more information.

## SPECIFICATIONS

### MECHANICAL:

Life:	300 insertion / withdrawal cycles minimum
Vibration:	Coupling rings have overriding locking feature to prevent loosening/separation of connector
Hex Nut Torque:	9 in-lb tightening torque
Coupling Locking Style:	Bayonet with ribbed coupling nut (winged coupling nut available) P/N 16482
Backshell Style:	Removable twist lock
Conductor Sizes:	#16 accepts 16 through 18 AWG #20 contacts accepts 20 through 24 AWG

### ELECTRICAL:

Voltage Rating:	600 V AC/DC
Current Rating:	13.0 A - max (See Electrical Current Rating Chart)

### ENVIRONMENTAL:

Operating Temperature:	-40°C to +85°C (-40°F to +185°F)
Salt Atmosphere (Corrosion) :	300 Hr salt spray when mated
Weathertight:	IP67/IP69K when mated

### MATERIAL:

Backshell:	Thermoplastic, UL 94HB, Black
Contacts:	Copper Alloy, Gold over Nickel Plate
Coupling Ring:	Thermoplastic, UL 94HB, Black
Gasket:	Elastomer, Black
Grommet/ Strain Relief:	Elastomer, Black
Hex Nut:	Thermoplastic, UL 94HB, Black
O-Ring:	Elastomer, Black
Shell:	Thermoplastic, UL 94HB, Black
Optional Dust Cap:	Elastomer, Black

# CON-X® ELECTRICAL CURRENT RATING CHART

CONTACT SIZE	CONDUCTOR SIZE - AWG	NUMBER OF CONDUCTORS	CURRENT RATING
#12	#12	1 through 7	23.0A
	#14	1 through 3	17.0A
		4 through 6	12.75A
		7 through 9	11.0A
	#16	1 through 3	13.0A
		4 through 6	9.75A
7		8.45A	
#16	#16	1 through 10	13.0A
		11 and 12	7.5A
	#18	1 through 3	10.0A
		4 through 12	7.5A
#20	#18	1 through 3	7.5A
		4 through 20	5.6A
		21 through 31	2.3A
	#20	1 through 3	7.5A
		4 through 20	5.6A
		21 through 31	2.3A
	#20 Multi-Con-X	10 through 12	5.0A
	#22	1 through 3	6.0A
		4 through 20	2.5A
		21 through 31	2.5A
	#24	1 through 3	4.5A
		4 through 20	2.0A
21 through 31		1.5A	
#22	#22	4	5.5A
	#24	4	5.0A
#26	#24	5 to 6	4.0A
	#24	7	3.5A
	#26	5 to 6	2.5A
	#26	7	2.5A
	#28*	5 to 6	2.0A
	#28*	7	2.0A

\*Not UL tested for this wire conductor size

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View 7281-6PG-300 on WIN SOURCE](#)
- [Conxall/Switchcraft Information](#)

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