



# Harsh Environment Power Connectors

Rugged, Reliable, Battle-Field Tested

**COOPER** Interconnect



MIL-DTL-55181  
MIL-DTL-12520  
and Commercial  
Versions for  
Mid-Range Power  
Operations

# Mid-Range Power Connectors



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**Innovation You Can Trust  
In The Most Challenging Conditions**



**Cooper Interconnect's line of QPL qualified and Commercial-Off-The-Shelf (COTS) connectors offer exceptional durability and versatility for many military and industrial mid-range power needs.**

**The QPL versions, designed and built under the WPI General Connector brand, have endured over 40 years of trusted ground support field use. With the acquisition of WPI General Connector, Cooper Interconnect has expanded the line to offer custom shell configurations, including Stackable Power connectors, Dual Entry and Dual Header connectors. These exclusive designs provide cost and space savings in both new design and retrofit applications.**

**Weatherproof seals, rugged construction, and premium quality components have allowed Cooper Interconnect's products to excel when the requirement is mission-critical.**

**The value-engineered COTS 55181 power family offers the same outstanding performance as our QPL military workhorse, at a more economical price. Along with direct equivalents for our most popular QPL configurations, Cooper Interconnect offers cable adaptor designs that enable cable shield termination for various cable sizes in the field or factory.**

# CONNECTIVITY

For your toughest mid-range power connector applications, look to **Cooper Interconnect** for the right solution.

M55181 Series	QPL qualified to MIL-DTL-55181, latest version. MW Series follows U.S. government part number designation.
GC55181 Standard Series	COTS version of the M55181 or MW Series.
GC55181 Adaptor Series	Similar to the GC55181 Standard Series, offers three cable shield adaptors to support a wide range of cables.
M12520 Series	Meets all the requirements of MIL-DTL-12520. UW Series follows Cooper Interconnect's part number designation.
Custom Shell Configurations	The Stacking, Dual Header, Dual Entry and SB Series connectors are Cooper's customized shell configurations.
Filtered Connectors	MIL-DTL-55181 interface connectors with filters to suppress unwanted frequencies.
Accessories & Tooling	Dust Caps, Spanner Wrenches and Termination Instructions.

# INNOVATION

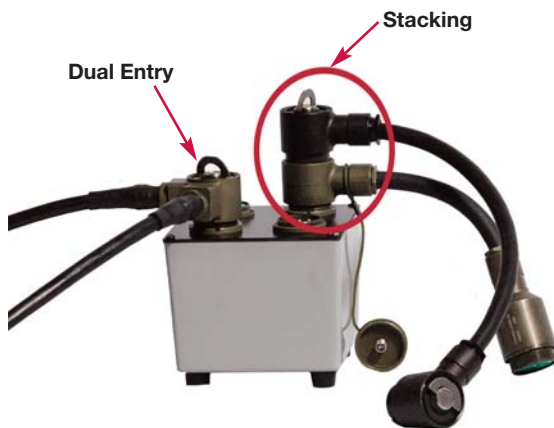
## Markets

The Cooper Interconnect series of mid-range power connectors has been used in rugged, harsh environment applications from the time that we were known as General Connector (GC). The GC designation, remains on many of the old specifications today.

The M55181 panel mount pin connectors, long the power connector of choice, are used as the Output power connection for SINCGARS (Single Channel Ground and Airborne Radio System) and the panel mount socket connectors are used as the Input power connection. The 18-pin M55181 connectors are used as the audio/data connectors.

The JTRS (Joint Tactical Radio System) radios continue to use the M55181 connectors for power requirements.

## Applications



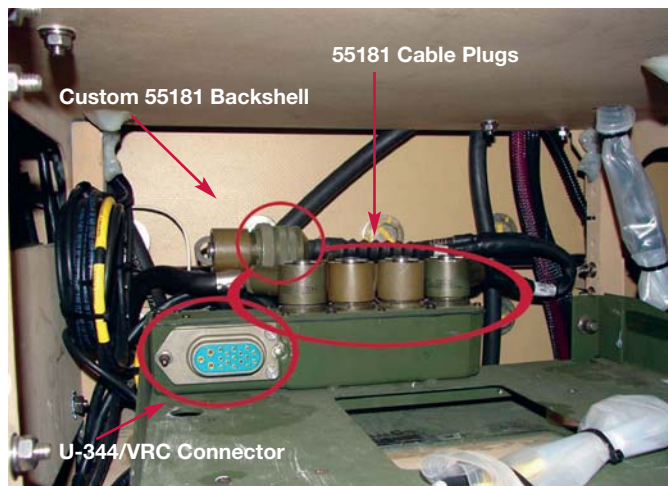
These connectors are used in a wide variety of other power systems, surge suppression systems and control circuits.

The stacking M55181 connector enables two radios or other devices to draw power from one source with “no extra parts needed and no parts left over.”

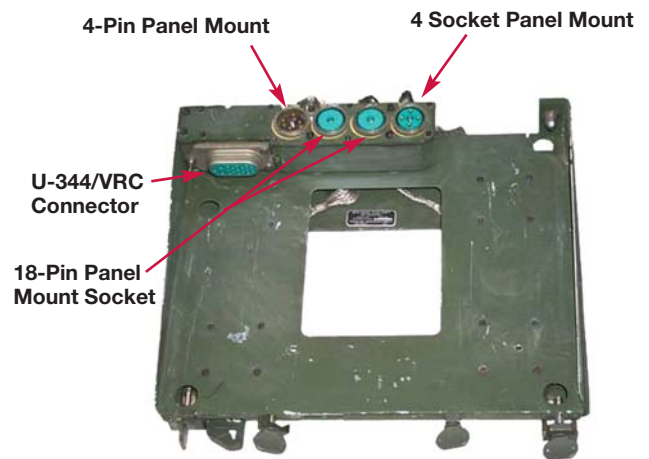
Dual Entry connectors enable power to be split from one source to two devices, similarly to the stacking connector.

## SINCGARS Vehicle Adaptors

MIL-DTL-55181 connectors are used for the power in and power out functions to mount a SINCGARS radio in a vehicle. The MIL-DTL-55181 18-pin connector is used as the audio/data output.




Mounted SINCGARS Vehicle Adaptor



SINCGARS Vehicle Adaptor Tray

# Product Configurator Guide

Use the Product Configurator Guide below to find the best solution for your specific application. **Black text** means the product configuration is available with normal lead times. **Red text** means the product configuration is possible to manufacture. Consult factory for details.

PANEL MOUNTS							
PRODUCT CONFIGURATION	PART NUMBER	STYLE	CONTACTS	NUMBER OF CONTACTS	TERMINATION STYLE	SHELL PLATING OPTIONS	MATES WITH
	M55181/2-01	Rcpt.	Pin	4	Turret	CAD *(Chem Conversion, Blk Ni)	M, GC and CI 55181/1 series
	M55181/4-01	Rcpt.	Skt	4	Turret	CAD *(Chem Conversion, Blk Ni)	M, GC and CI 55181/3 series
	M55181/6-01	Rcpt.	Skt	9	Solder Cup	CAD *(Chem Conversion, Blk Ni)	M, GC and CI 55181/5 series
	M55181/8-01	Rcpt.	Skt	18	Solder Cup	CAD *(Chem Conversion, Blk Ni)	M, GC and CI 55181/7 series

\*Alternate plating and shell configurations on a QPL product, makes a non QPL product.

CABLE MOUNTS							
PRODUCT CONFIGURATION	PART NUMBER	STYLE	CONTACTS	NUMBER OF CONTACTS	TERMINATION STYLE	SHELL PLATING OPTIONS	MATES WITH
	M55181/1-0X	Plug	Skt	4	Turret	CAD *(Chem Conversion, Blk Ni)	M, and CI 55181/2 series
	M55181/3-0X	Plug	Pin	4	Turret	CAD *(Chem Conversion, Blk Ni)	M, and CI 55181/4 series
	M55181/5-0X	Plug	Pin	9	Solder Cup	CAD *(Chem Conversion, Blk Ni)	M, and CI 55181/6 series
	M55181/7-0X	Plug	Pin	18	Solder Cup	CAD *(Chem Conversion, Blk Ni)	M, and CI 55181/8 series
	GC55181/1-0X	Plug	Skt	4	Turret	Chem Conversion (Blk Ni)	M, and CI 55181/2 series
	GC55181/3-0X	Plug	Pin	4	Turret	Chem Conversion (Blk Ni)	M, and CI 55181/4 series
	GC55181/5-0X	Plug	Pin	9	Solder Cup	Chem Conversion (Blk Ni)	M, and CI 55181/6 series
	GC55181/7-0X	Plug	Pin	18	Solder Cup	Chem Conversion (Blk Ni)	M, and CI 55181/8 series
	GC55181/1-ADX	Plug	Skt	4	Turret	Chem Conversion *(CAD, Blk Ni)	M, and CI 55181/2 series
	GC55181/3-ADX	Plug	Pin	4	Turret	Chem Conversion *(CAD, Blk Ni)	M, and CI 55181/4 series
	GC55181/5-ADX	Plug	Pin	9	Solder Cup	Chem Conversion *(CAD, Blk Ni)	M, and CI 55181/6 series
	GC55181/7-ADX	Plug	Pin	18	Solder Cup	Chem Conversion *(CAD, Blk Ni)	M, and CI 55181/8 series
	CI55181/1-0XS	Plug	Skt	4	Turret	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/2 series
	CI55181/3-0XS	Plug	Pin	4	Turret	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/4 series
	CI55181/5-0XS	Plug	Pin	9	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/6 series
	CI55181/7-0XS	Plug	Pin	18	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/8 series
	GC55181/1-0XS	Plug	Skt	4	Turret	Chem Conversion, Blk Ni	M, and CI 55181/2 series
	GC55181/3-0XS	Plug	Pin	4	Turret	Chem Conversion, Blk Ni	M, and CI 55181/4 series
	GC55181/5-0XS	Plug	Pin	9	Solder Cup	Chem Conversion, Blk Ni	M, and CI 55181/6 series
	GC55181/7-0XS	Plug	Pin	18	Solder Cup	Chem Conversion, Blk Ni	M, and CI 55181/8 series

\*\*Nosepiece is CAD plated.

# Product Configurator Guide

CABLE MOUNTS							
PRODUCT CONFIGURATION	PART NUMBER	STYLE	CONTACTS	NUMBER OF CONTACTS	TERMINATION STYLE	SHELL PLATING OPTIONS	MATES WITH
<b>Stacking COTS Adaptor Series</b> 	GC55181/1-ADX	Plug	Skt	4	Turret	CAD, Chem Conversion, Blk Ni	M, and CI 55181/2 series
	GC55181/3-ADX	Plug	Pin	4	Turret	CAD, Chem Conversion, Blk Ni	M, and CI 55181/4 series
	GC55181/5-ADX	Plug	Pin	9	Solder Cup	CAD, Chem Conversion, Blk Ni	M, and CI 55181/6 series
	GC55181/7-ADX	Plug	Pin	18	Solder Cup	CAD, Chem Conversion, Blk Ni	M, and CI 55181/8 series
<b>Double Header</b> 	CI55181/2-DH0X	Plug	Skt	4	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, GC and CI 55181/1 series
	CI55181/4-DH0X	Plug	Pin	4	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, GC and CI 55181/3 series
	CI55181/6-DH0X	Plug	Pin	9	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, GC and CI 55181/5 series
	CI55181/8-DH0X	Plug	Pin	18	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, GC and CI 55181/7 series
<b>Double Header Adaptor Style</b> 	CI55181/2-DHADX	Plug	Skt	4	Turret	CAD, Chem Conversion, Blk Ni	M, GC and CI 55181/1 series
	CI55181/4-DHADX	Plug	Pin	4	Turret	CAD, Chem Conversion, Blk Ni	M, GC and CI 55181/3 series
	CI55181/6-DHADX	Plug	Pin	9	Solder Cup	CAD, Chem Conversion, Blk Ni	M, GC and CI 55181/5 series
	CI55181/8-DHADX	Plug	Pin	18	Solder Cup	CAD, Chem Conversion, Blk Ni	M, GC and CI 55181/7 series
<b>Dual Entry (75°/90°) Adaptor Style</b> 	CI55181/1-DE(75)AD0X	Plug	Skt	4	Turret	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/2 series
	CI55181/3-DE(75)AD0X	Plug	Pin	4	Turret	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/4 series
	CI55181/5-DE(75)AD0X	Plug	Pin	9	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/6 series
	CI55181/7-DE(75)AD0X	Plug	Pin	18	Solder Cup	CAD (Chem Conversion, Blk Ni)	M, and CI 55181/8 series
<b>Dual Entry (75°) Stacking Adaptor Style</b> 	CI55181/1-DE(75)AD0XS	Plug	Skt	4	Turret	CAD, Chem Conversion, Blk Ni	M, and CI 55181/2 series
	CI55181/3-DE(75)AD0XS	Plug	Pin	4	Turret	CAD, Chem Conversion, Blk Ni	M, and CI 55181/4 series
	CI55181/5-DE(75)AD0XS	Plug	Pin	9	Solder Cup	CAD, Chem Conversion, Blk Ni	M, and CI 55181/6 series
	CI55181/7-DE(75)AD0XS	Plug	Pin	18	Solder Cup	CAD, Chem Conversion, Blk Ni	M, and CI 55181/8 series
<b>SB Series</b> 	CI55181/2-01SBY-0X	Rcpt.	Pin	4	Turret	CAD/Nickel (Blk Ni)	M, GC and CI 55181/1 series
	CI55181/4-01SBY-0X	Rcpt.	Skt	4	Turret	CAD/Nickel (Blk Ni)	M, GC and CI 55181/3 series
	CI55181/6-01SBY-0X	Rcpt.	Skt	9	Solder Cup	CAD/Nickel (Blk Ni)	M, GC and CI 55181/5 series
	CI55181/8-01SBY-0X	Rcpt.	Skt	18	Solder Cup	CAD/Nickel (Blk Ni)	M, GC and CI 55181/7 series
	CI55181/1-01SBY-0X	Plug	Skt	4	Turret	CAD, Chem Conversion, Blk Ni	M, and CI 55181/2 series
	CI55181/3-01SBY-0X	Plug	Pin	4	Turret	CAD, Chem Conversion, Blk Ni	M, and CI 55181/4 series
	CI55181/5-01SBY-0X	Plug	Pin	9	Solder Cup	CAD, Chem Conversion, Blk Ni	M, and CI 55181/6 series
	CI55181/7-01SBY-0X	Plug	Pin	18	Solder Cup	CAD, Chem Conversion, Blk Ni	M, and CI 55181/8 series

Note: Black Nickel plated parts are RoHS Compliant.

# MIL-DTL-55181 Power Connectors



M55181/7-0X

## Product Overview

With over 40 years of field-proven reliability, Cooper Interconnect's MIL-DTL-55181 (MW Series) power connectors are designed to meet the most stringent requirements while withstanding the extreme range of environmental conditions encountered by ground support equipment.

Resistant to contamination of dust, dirt and water, these workhorse connectors also are engineered to provide the ultimate resistance to shock and vibration via the center-locking screw, which is easily secured by turning the mechanized fold-down, wing-blade handle.

The Cooper Interconnect MW series is the predecessor to the MIL-DTL-55181 specification. When the M55181 specification was written by the government, they derived the spec from the existing Cooper Interconnect and General Connector MW product line. The cross reference from MW part numbers to the M55181 part numbers is available on page 13. By default, the MW part numbers also meet the requirements of the MIL-DTL-55181 specification.

## Features and Benefits

**QPL certified** - The M55181 and MW connectors are government qualified per MIL-DTL-55181.

**Versatile Configurations** – The M55181 series are available in 4-, 9- and 18-contact versions, as plugs or receptacles. They support cable-to-cable, cable-to-panel, and jam nut panel mounting.

**Weatherproof** - Heavy-duty gaskets and O-rings provide a watertight seal to prevent moisture, dust and dirt contamination and to maximize reliability.

**Durable Construction** – Time-tested, field-proven reliability. Corrosion-resistant, aluminum alloy receptacle and high-impact solid brass plug construction resist impact damage. Heat-tempered nosepiece is made of hardened alloy steel for enhanced impact protection for rough handling.

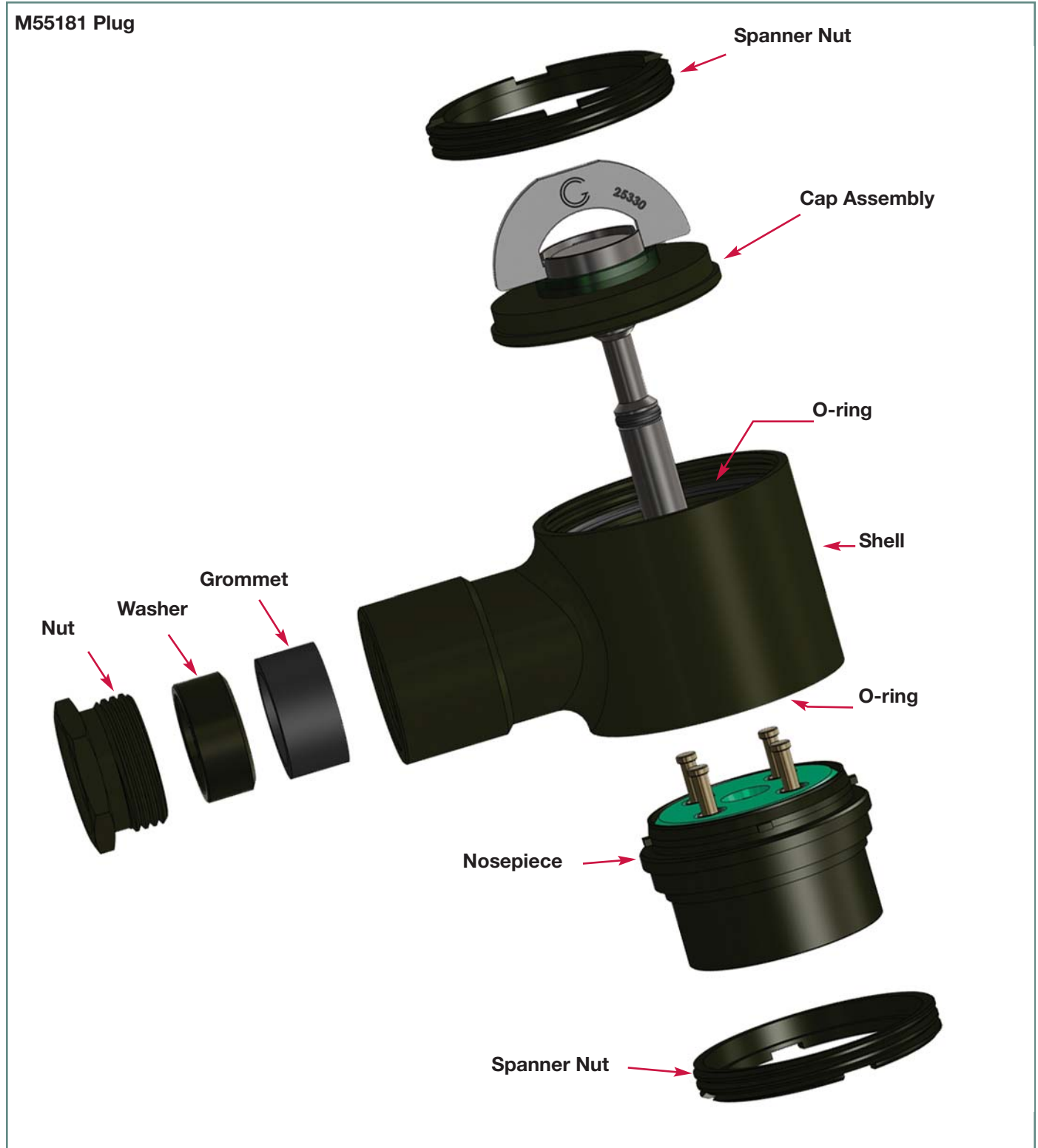
**Superior Electrical Connections** - Precision contacts have gold over nickel plating providing positive electrical connection with minimum voltage drop.

**Easy to Use** - Receptacle and plug mating is accomplished quickly and easily by turning a center-locking, double-lead screw with an easy-to-grasp wing-blade handle. Vibration-resistant, secure locking mechanism will not back out.

**Reliable** - Worry-free 500 mate/unmate cycle rating.

# MIL-DTL-55181 Power Connectors

## Features Overview



# MIL-DTL-55181 Power Connectors

The MW connectors meet all requirements of MIL-DTL-55181.

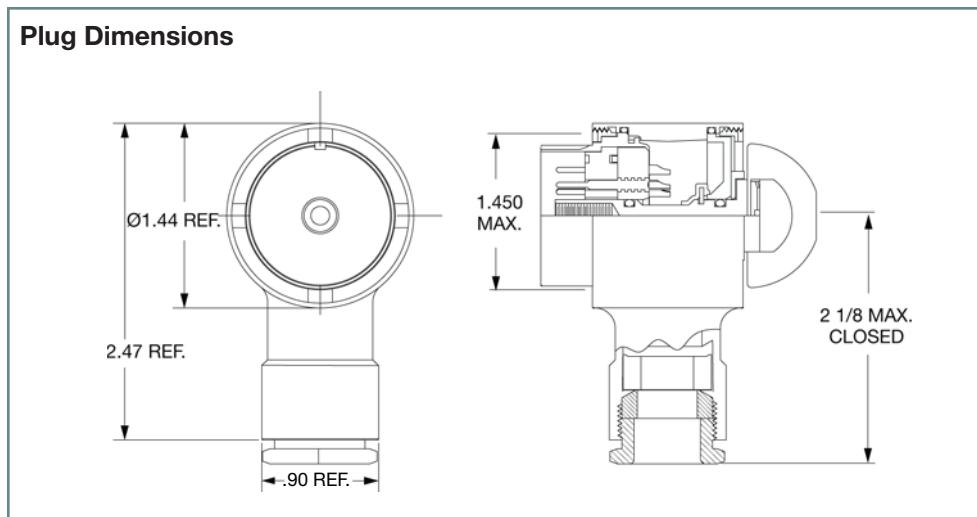
## Specifications

MATERIALS AND FINISHES	
<b>Shells</b>	
Plugs	Aluminum alloy body, steel alloy nosepiece 300 $\mu$ " cadmium plate with olive-drab chromate.
Receptacles	Brass, 300 $\mu$ " cadmium plate with olive-drab chromate.
Nosepieces	Alloy steel, 300 $\mu$ " cadmium plate with olive-drab chromate.
Spanner Nut	Brass, olive-drab cadmium plate.
Draw Screws	Stainless steel.
<b>Contacts</b>	
Socket	High-conductivity copper alloy with beryllium copper spring element, 50 $\mu$ " gold over 30-150 $\mu$ " nickel.
Pin	Yellow brass, 50 $\mu$ " gold over 30-150 $\mu$ " nickel.
Insulator	Glass-filled diallyl phthalate, type GDF-30 F or SDG-F.

ELECTRICAL	
<b>Dielectric Strength</b>	
4 Contacts	2000 Volts RMS
9, 18 Contacts	1500 Volts RMS
<b>Insulation Resistance</b>	1000 Megohms min. at 500 Volts DC
<b>Voltage Drop</b>	
4 Contact	20 mV at 35 Amps
9, 18 Contact	25 mV at 7.5 Amps

MECHANICAL	
Air Pressure	2.5 PSI
Water Immersion	6 ft., 48 hours
Durability	500 cycles with a coupling torque of 25 in.-lbs.
Contact Retention	10 lbs.
Insert Strength	400 lbs.

## Plug Dimensions



# MIL-DTL-55181 Power Connectors

## M55181 Connectors (MW Series)



M55181/1-0X



M55181/3-0X



M55181/7-0X

M55181 Connectors



M55181/2-01



M55181/4-01

Receptacles are available for all mid-range power connectors. M55181 receptacles support Mil-Spec and COTS versions of the 55181 power connector family.

MW receptacles support the MW Plugs.

Consult factory for your specific needs.



M55181/6-01

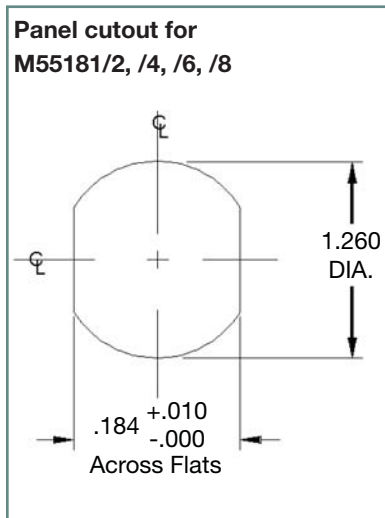


M55181/8-01

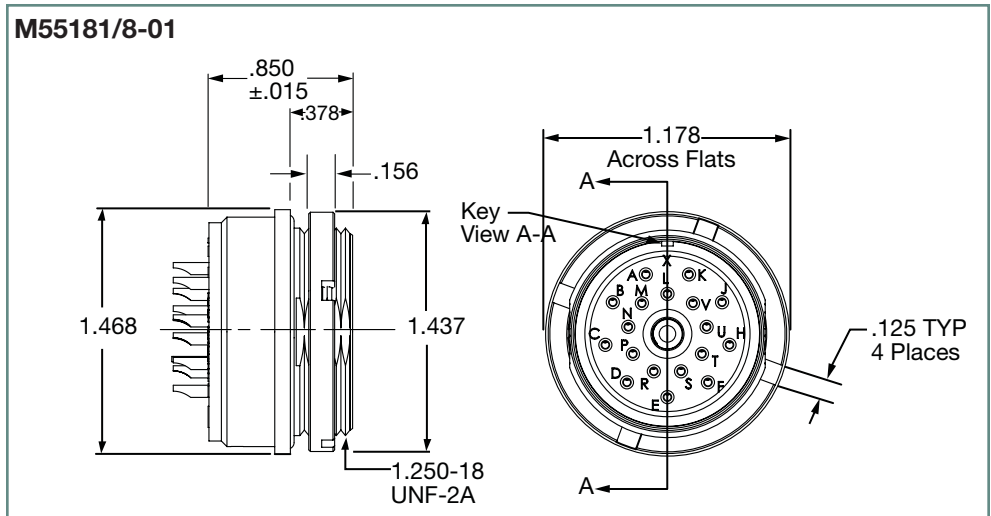
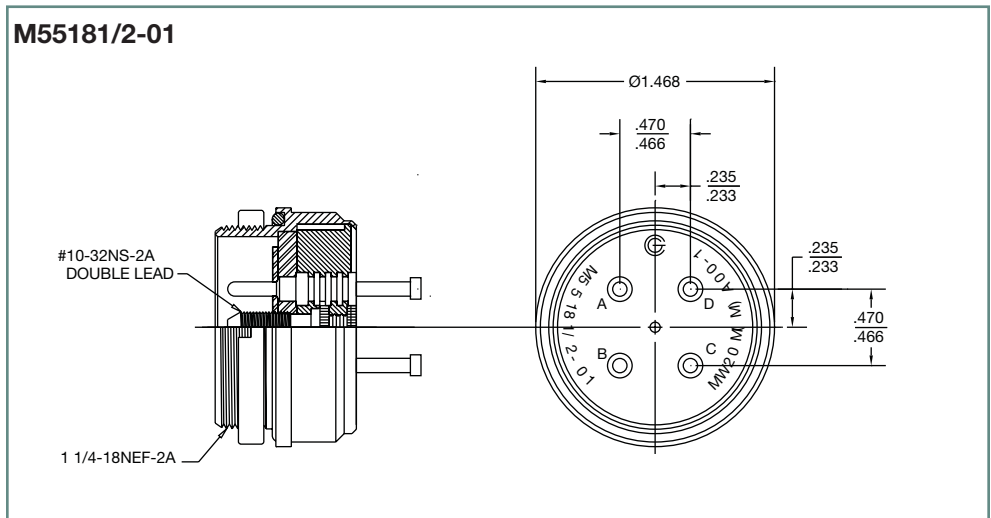
# MIL-DTL-55181 Power Connectors

M55181 Connectors

MW RECEPTACLES							
CI GENERAL PART NUMBER	NUMBER OF CONTACTS	CONTACT TYPE	AMPS CONTACT	CONTACT SIZE	TERMINATION	MOUNT	MATES WITH PLUGS
M55181/2- 01	4	Pin	35	12	Turret	Panel	M55181/1-, GC55181/1-, CI55181/1-series
M55181/4- 01		Socket					M55181/3-, GC55181/3-, CI55181/3-series
M55181/6- 01	9	Socket	7.5	20	Solder Cup		M55181/5-series
M55181/8- 01	18						M55181/7-, GC55181/7-, CI55181/7-series



\*Recommended panel thickness 0.125".



Consult factory for additional information.

# MIL-DTL-55181 Power Connectors



## Ordering Information - Part Numbering System

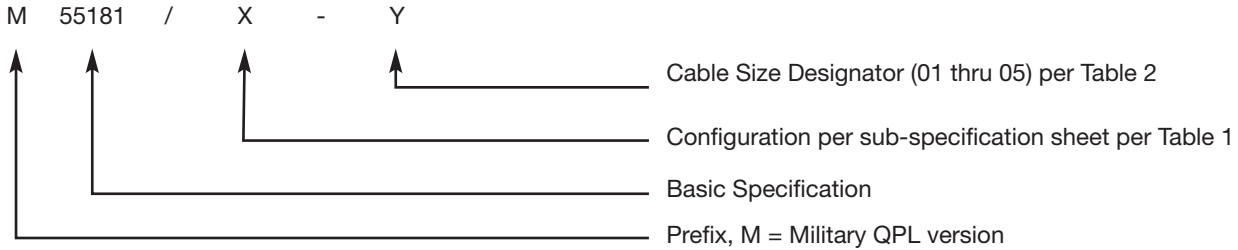


TABLE 1									
CI GENERAL PART NUMBER	"X" VALUE	TYPE	MOUNT	CONTACT NUMBER	CONTACT TYPE	AMPS	CONTACT SIZE	TERMINATION	MATES WITH
M55181/1- Y*	1	Plug	Cable	4	Socket	35	12	Turret	M55181/2-, GC55181/2-, CI55181/2-series
M55181/2- Y*	2	Receptacle	Panel	4	Pin	35	12	Turret	M55181/1-, GC55181/1-, CI55181/1-series
M55181/3- Y*	3	Plug	Cable	4	Pin	35	12	Turret	M55181/4-, GC55181/4-, CI55181/4-series
M55181/4- Y*	4	Receptacle	Panel	4	Socket	35	12	Turret	M55181/3-, GC55181/3-, CI55181/3-series
M55181/5- Y*	5	Plug	Cable	9	Pin	7.5	20	Solder Cup	M55181/6-, GC55181/6-, CI 55181/6-series
M55181/6- Y*	6	Receptacle	Panel	9	Socket	7.5	20	Solder Cup	M55181/5-series
M55181/7- Y*	7	Plug	Cable	18	Pin	7.5	20	Solder Cup	M55181/8-, GC55181/8-, CI 55181/8 series
M55181/8- Y*	8	Receptacle	Panel	18	Socket	7.5	20	Solder Cup	M55181/7-, GC55181/7-, CI55181/7-series

\*Cable diameter specification not applicable to receptacles (only as an -01).

GOVERNMENT DESIGNATION	MANUFACTURER'S DESIGNATION	NSN
M55181/1-01	MW10F(M)A11	5935006036952
M55181/1-02	MW10F(M)A13	5935012047312
M55181/1-03	MW10F(M)A17	5935009213399
M55181/1-04	MW10F(M)A19	5935012497559
M55181/1-05	MW10F(M)A15	5935013294190
M55181/2-01	MW20M(M)A00	5935013789152
M55181/3-01	MW10M(M)A11	5935012082345
M55181/3-02	MW10M(M)A13	5935011249341
M55181/3-03	MW10M(M)A17	5935011676095
M55181/4-01	MW20F(M)A00	5935011997156
M55181/5-01	MW10M(M)B11	5935011841460
M55181/5-02	MW10M(M)B13	5935011491162
M55181/5-03	MW10M(M)B17	5935010816484
M55181/6-01	MW20F(M)B00	5935008535942
M55181/7-01	MW10M(M)D11	5935011119956
M55181/7-02	MW10M(M)D13	5935011163608
M55181/7-03	MW10M(M)D17	5935008152325
M55181/7-04	MW10M(M)D19	5935013003701
M55181/7-05	MW10M(M)D15	5935013298690
M55181/8-01	MW20F(M)D00	5935001330394

TABLE 2	
"Y" VALUE	CABLE DIAMETER (INCHES)
01	0.292 to 0.343
02	0.323 to 0.406
03	0.448 to 0.531
04	0.511 to 0.593
05	0.386 to 0.486

The MW connectors meet all requirements of MIL-DTL-55181.

M55181 Connectors

# COTS GC55181 Power Connectors



Standard COTS GC55181/3-0X

## Product Overview

For military and industrial power applications in harsh environments where cost containment is more important than government certification. Cooper Interconnect's Commercial-Off-the-Shelf (COTS) version of the M55181 family provides the same performance as the certified version of the M55181 power connectors, but at an economical price.

## Features and Benefits

**Value-Engineered Solution** - Same performance standards as Cooper Interconnect's MIL-DTL-55181 power connector family, with cost savings built in.

**Configuration Options** - Available in two primary configurations:

1. Standard COTS 55181 for seamless integration into M55181 type applications.
2. Cable adaptor COTS 55181 for a wide range of shielded cable configurations.

**Rugged Construction** - High-strength aluminum alloy maximizes corrosion resistance and tempered nose piece minimizes damage from high impact forces. Provides weather and waterproof seals for protection against environmental contaminants, with secure mating options.

- Center-locking, double-lead screws allow easy, positive, and secure mating.
- Mounting flexibility for cable-to-cable, and cable-to-panel applications.
- Gold over nickel contacts provide positive, efficient, electrical connections.
- Worry-free, 500 mate/unmate cycle rating.

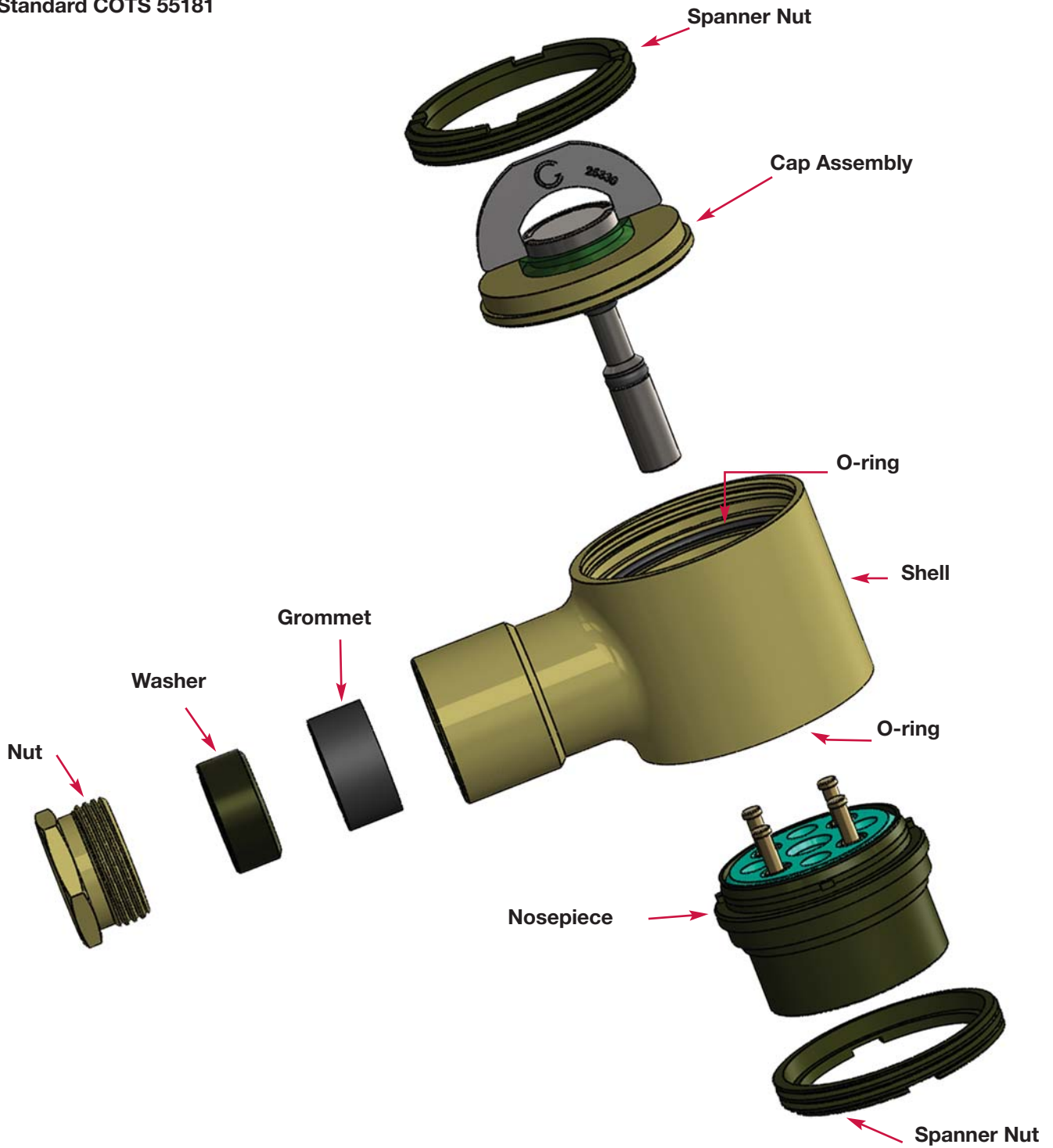


COTS power connectors excel in the harshest conditions.

# COTS GC55181 Power Connectors

## Features Overview

### Standard COTS 55181



COTS Connectors

# COTS GC55181 Power Connectors

These power connectors are used in rugged applications that require waterproofing and extended life for communication equipment and industrial instrumentation.

Specifications are for both COTS and Adaptor versions.



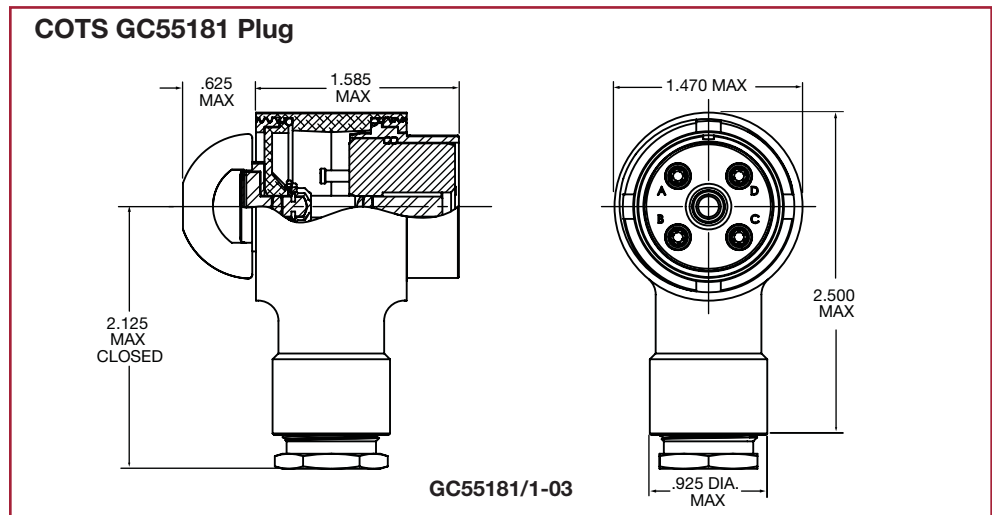
New Black Nickel (RoHS) Plating

## Specifications

MATERIALS AND FINISHES	
<b>Shells</b>	
Plugs	Aluminum alloy body, chemical film per MIL-C-5541.
Nose pieces	Alloy steel, 300u" cadmium plate with olive-drab chromate.
Draw Screws	Stainless steel.
Nut	Brass, 300u" cadmium plate with olive-drab chromate.
Spanner Nut	Cadmium plate with olive-drab chromate.
Adaptor	Aluminum alloy body, chemical film per MIL-C-5541.
<b>Contacts</b>	
Socket	High-conductivity copper alloy with beryllium copper spring element, 30u" gold over 10-100u" nickel.
Pin	Yellow brass, 30u" gold over 50-100u" nickel.
Insulator	Glass-filled diallyl phthalate, type GDF-30 F or SDG-F.

ELECTRICAL	
<b>Dielectric Strength</b>	
4 Contacts	2000 Volts RMS
9, 18 Contacts	1500 Volts RMS
<b>Insulation Resistance</b>	1000 Megohms min. at 500 Volts DC
<b>Voltage Drop</b>	
4 Contact	20 mV at 35 Amps
9, 18 Contact	21 mV at 7.5 Amps

MECHANICAL	
Air Pressure	2.5 PSI
Water Immersion	6 ft., 48 hours
Durability	500 cycles with a coupling torque of 25 in.-lbs.
Contact Retention	15 lbs.
Insert Strength	400 lbs.



# COTS GC55181 Power Connectors

## Ordering Information - Part Numbering System

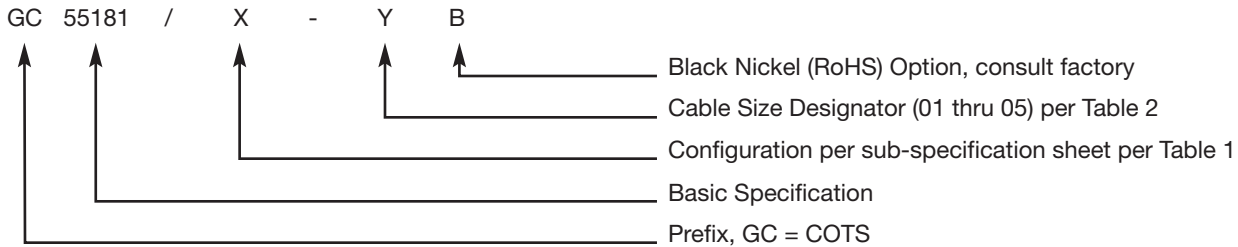


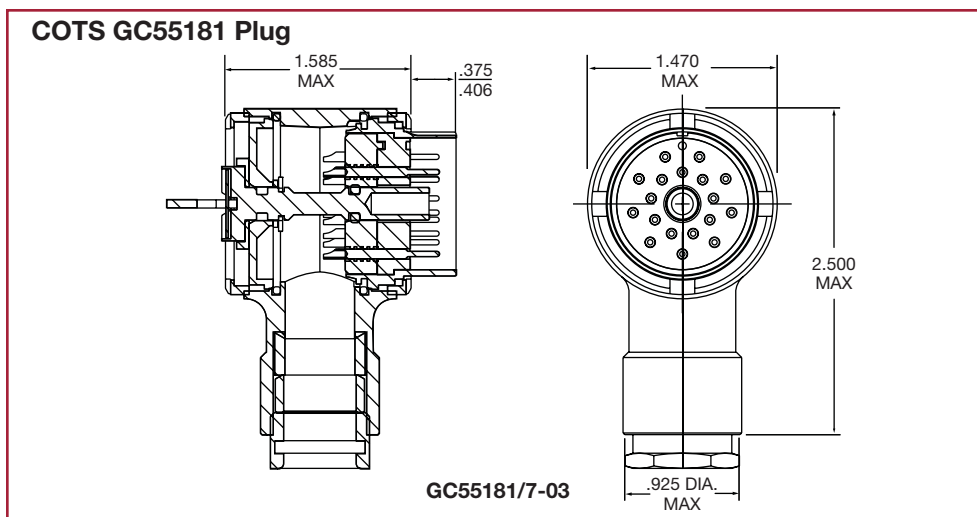
TABLE 1

CI GENERAL PART NUMBER	TYPE	MOUNT	CONTACT NUMBER	CONTACT TYPE	AMPS	TERMINATION
GC55181/1- Y	Plug	Cable	4	Socket	35	Turret
GC55181/3- Y	Plug	Cable	4	Pin	35	Turret
GC55181/5- Y	Plug	Cable	9	Pin	7.5	Solder Cup
GC55181/7- Y	Plug	Cable	18	Pin	7.5	Solder Cup

TABLE 2\*

"Y" VALUE	CABLE DIAMETER (INCHES)
01	0.292 to 0.343
02	0.323 to 0.406
03	0.448 to 0.531
04	0.511 to 0.593
05	0.386 to 0.486

\*COTS plugs mate with 55181 receptacles. See Receptacles information on page 12.

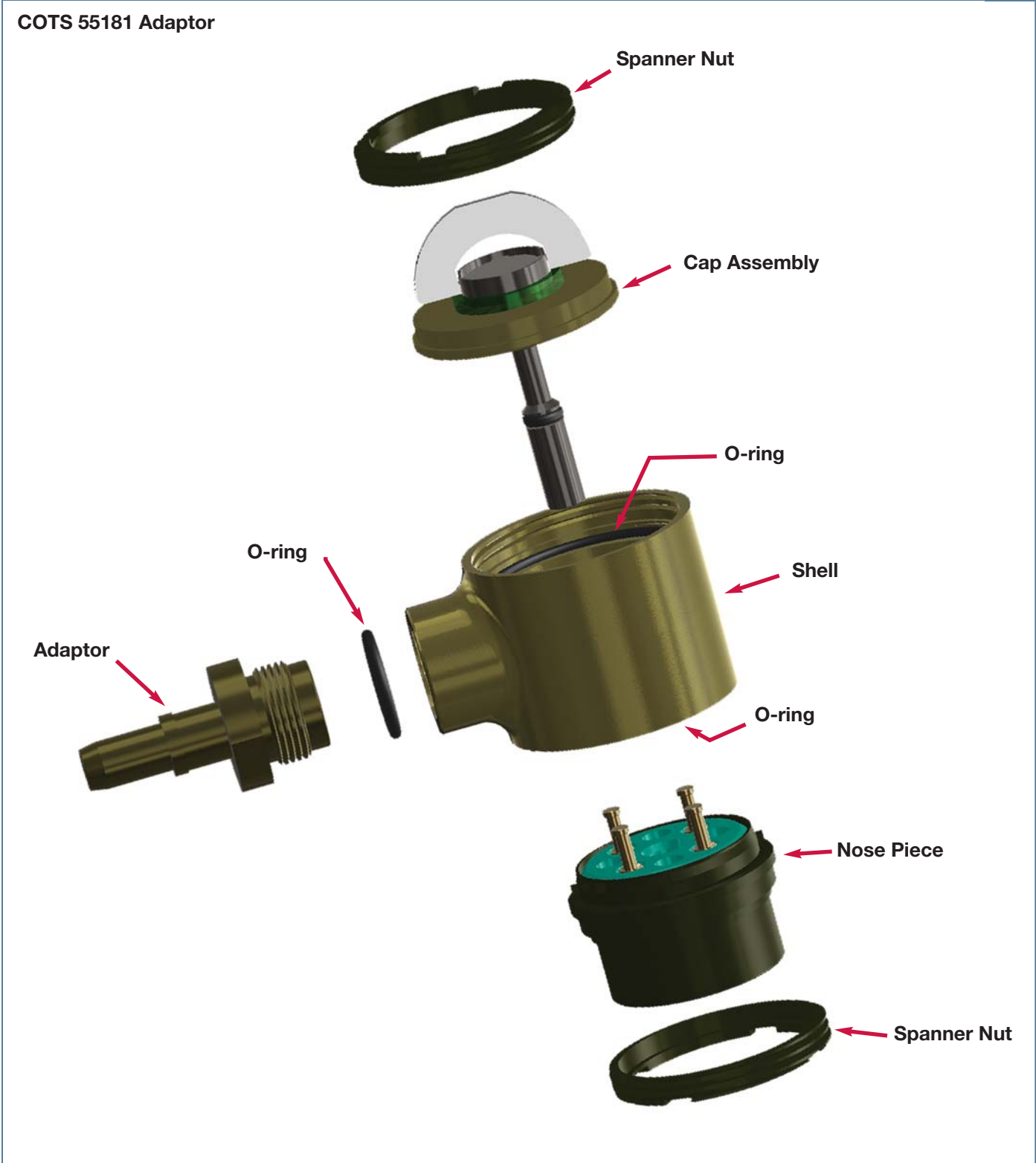


COTS Connectors

# COTS GC55181 Adaptor Series

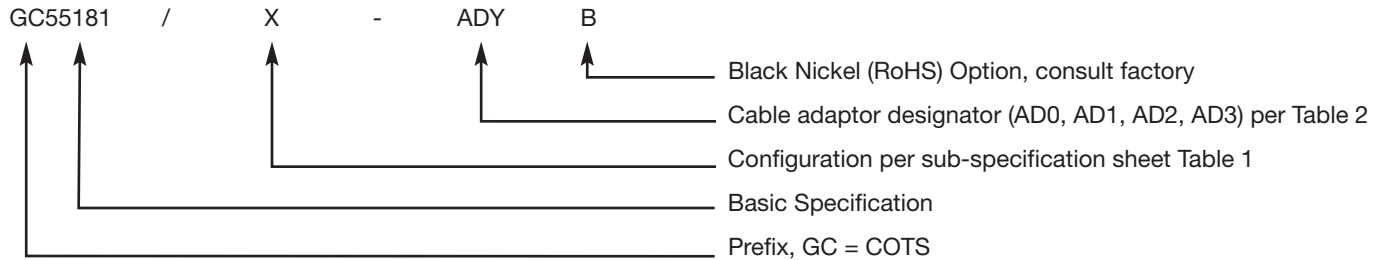
## Features Overview

COTS Adaptors



# COTS GC55181 Adaptor Series

## Ordering Information - Part Numbering System



CI GENERAL PART NUMBER	TYPE	MOUNT	CONTACT NUMBER	CONTACT TYPE	AMPS	TERMINATION
GC55181/1- ADY	Plug	Cable	4	Socket	35	Turret
GC55181/3- ADY	Plug	Cable	4	Pin	35	Turret
GC55181/5 - ADY	Plug	Cable	9	Pin	7.5	Solder Cup
GC55181/7- ADY	Plug	Cable	18	Pin	7.5	Solder Cup

\*COTS plugs mate with 55181 receptacles. See Receptacles information on page 12.



GC55181/3-AD1

ADAPTOR TYPE	DESCRIPTION	CI PART NUMBER	CECOM NUMBER	SIMILAR TO QPL PART NUMBER	ADAPTOR ID (INCHES)	ADAPTOR OD (INCHES)
AD0	Base Only	GC55181/1-AD0	A3316635-4	M55181/1	n/a	n/a
		GC55181/3-AD0	A3316636-4	M55181/3		
		GC55181/7-AD0	A3316634-4	M55181/7		
AD1	Base + AD1 Adaptor	GC55181/1-AD1	A3316635-1	M55181/1	0.203	0.303
		GC55181/3-AD1	A3316636-1	M55181/3		
		GC55181/7-AD1	A3316634-1	M55181/7		
	AD1 Adaptor Only	33-18FG	n/a	n/a		
AD2	Base + AD2 Adaptor	GC55181/1-AD2	A3316635-2	M55181/1	0.297	0.397
		GC55181/3-AD2	A3316636-2	M55181/3		
		GC55181/7-AD2	A3316634-2	M55181/7		
	AD2 Adaptor Only	33-19FG	n/a	n/a		
AD3	Base + AD3 Adaptor	GC55181/1-AD3	A3316635-3	M55181/1	0.390	0.490
		GC55181/3-AD3	A3316636-3	M55181/3		
		GC55181/7-AD3	A3316634-3	M55181/7		
	AD3 Adaptor Only	33-20FG	n/a	n/a		

\*For specifications of the COTS Adaptor Series, see page 16.



GC55181/1-AD2



GC55181/7-AD3

COTS Adaptors

# COTS GC55181 Adaptor Series

## Product Ordering - Communications Electronics Command (CECOM) Cross Reference

CECOM CROSS REFERENCE TO CI PART NUMBER						
CECOM CABLE NUMBER	USE CI PART NUMBER	CECOM CONNECTOR NUMBER	SIMILAR TO QPL PART NUMBER	CABLE DIAMETER (INCHES)	ADAPTOR THROUGH DIA. (INCHES)	EXPORT EQUIVALENT
A3014038-14	GC55181/7-AD1	A3316634-1	M55181/7-03	0.400	0.203	8164394-14
A3014038-8	GC55181/7-AD1	A3316634-1	M55181/7-03	0.400	0.203	
A3014038-8	GC55181/7-AD1	A3316634-1	M55181/7-03	0.430	0.203	8164394-8
A3014039-1	GC55181/1-AD2	A3316635-2	M55181/1-03	0.390	0.297	
A3014040-2	GC55181/1-AD2 & GC55181/3-AD2	A3316635-2 & A3316636-2	M55181/1-03 & M55181/3-03	0.420	0.297	8164396-2
A3014040-4	GC55181/1-AD2, & GC55181/3-AD2	A3316635-2 & A3316636-2	M55181/1-03 & M55181/3-03	0.400	0.297	8164396-4
A3014040-5	GC55181/1-AD2 & GC55181/3-AD2	A3316635-2 & A3316636-2	M55181/1-03 & M55181/3-03	0.420	0.297	
A3014041-1	GC55181/1-AD2	A3316635-2	M55181/1-03	0.395	0.297	8163430-1
A3014042-1	GC55181/1-AD2	A3316635-2	M55181/1-03	0.395	0.297	
A3014043-1	GC55181/1-AD2	A3316635-2	M55181/1-03	0.435	0.297	
A3014043-6	GC55181/1-AD2	A3316635-2	M55181/1-03	0.435	0.297	
A3014044-1	GC55181/7-AD2	A3316634-2	M55181/7-03	0.435	0.297	
A3014044-6	GC55181/7-AD2	A3316634-2	M55181/7-03	0.435	0.297	
A3154857-1	GC55181/1-AD2 & GC55181/3-AD2	A3316635-2 & A3316636-2	M55181/3-03 & M55181/1-03	0.435	0.297	
A3191153-2	GC55181/1-AD2	A3316635-2	M55181/1-03	0.435	0.297	
SM-D-415553	GC55181/7-AD2	A3316634-2	M55181/7-03	0.435	0.297	

\*COTS plugs mate with 55181 receptacles. See Receptacles information on page 12.

COTS Adaptors



# COTS GC55181 Adaptor Series

## COTS 55181 Adaptors



33-18FG

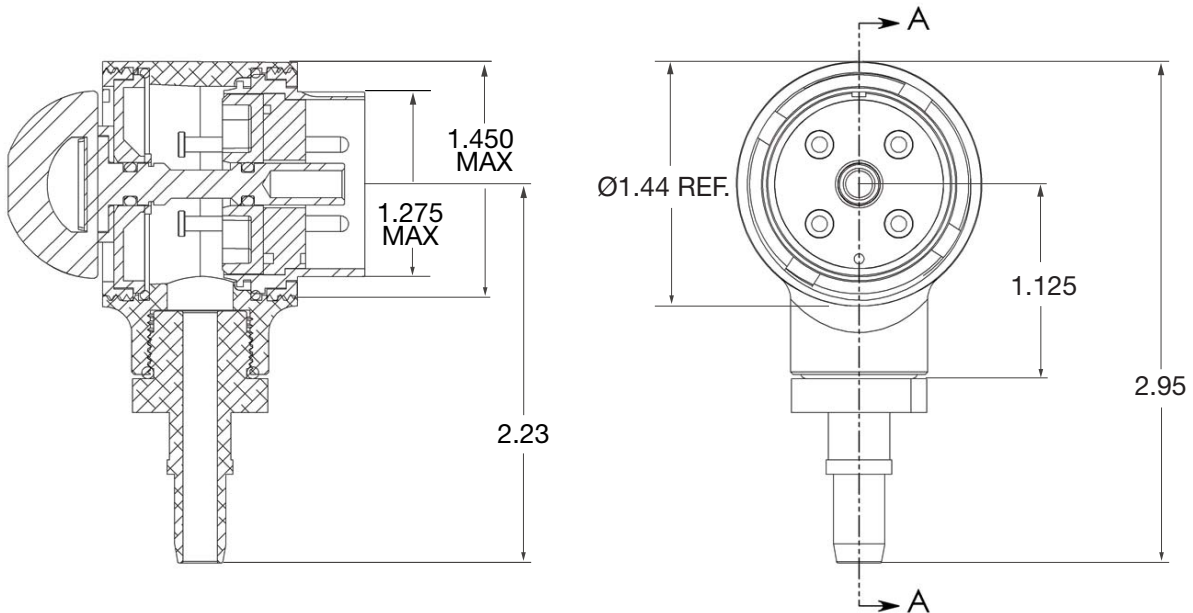


33-19FG



33-20FG

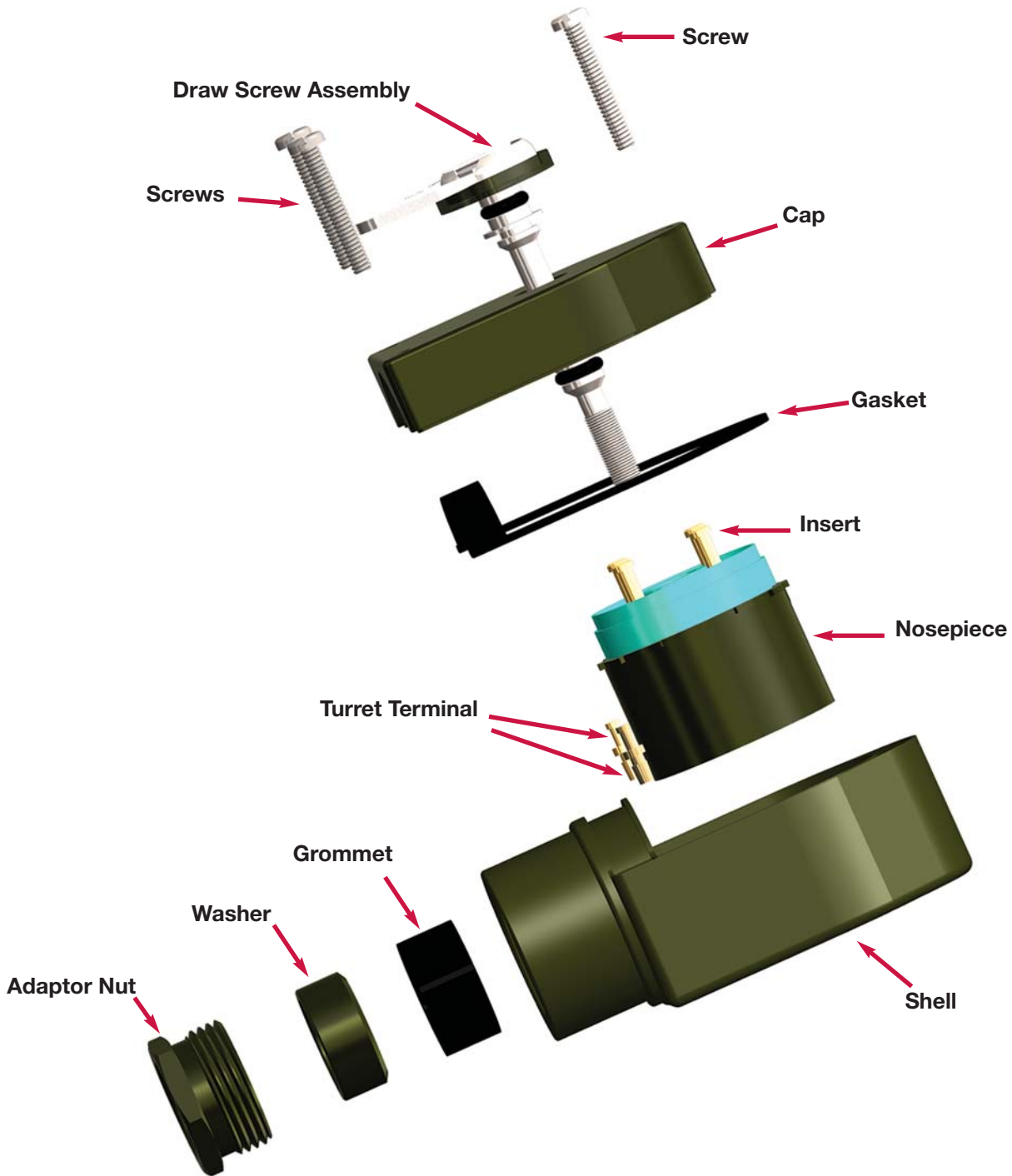
## GC55181/3-AD1



# UW Power Connectors

## Features Overview

### UW Connectors



## UW Connectors

The UW connectors meet all requirements of the MIL-DTL-12520 specification. These connectors are rugged, proven reliable, and are designed for power and control interconnections. Featured is a center-locking, double-lead screw for maximum reliability, with a fold-down, wing-blade handle. They are waterproof and can withstand the extreme range of environmental conditions encountered by ground support equipment.

## Features and Benefits

**Versatile Configurations** – Available in three plug shell sizes styles (small round, small cathedral and large cathedral). The UW series is available in 4-, 9-, 14-, 19-, and 30-contact versions configured to support cable-to-cable, cable-to-panel, and jam nut panel mounting.

**Weatherproof** - Heavy-duty gaskets and O-rings provide a watertight seal to prevent moisture, dust and dirt contamination and maximize reliability.

**Durable Construction** – Time-tested, field-proven reliability for over 40 years. Corrosion-resistant, aluminum alloy receptacles and high-impact solid brass plug construction resist impact damage. Heat-tempered nosepiece is made of hardened alloy steel for enhanced impact protection in the event of mishandling.

**Superior Electrical Connections** - Precision contacts are gold over nickel providing positive electrical connection with minimum voltage drop.

**Easy to Use** - Receptacle and plug mating is accomplished quickly and easily by turning a center-locking, double lead screw with easy-to-grasp wing-blade handle. Vibration-resistant, secure locking mechanism will not back out.

**Reliable** - Worry-free 500 mate/unmate cycle rating.



UW1326MD17



UW power connectors support military communication systems.

# UW Power Connectors

UW Connectors

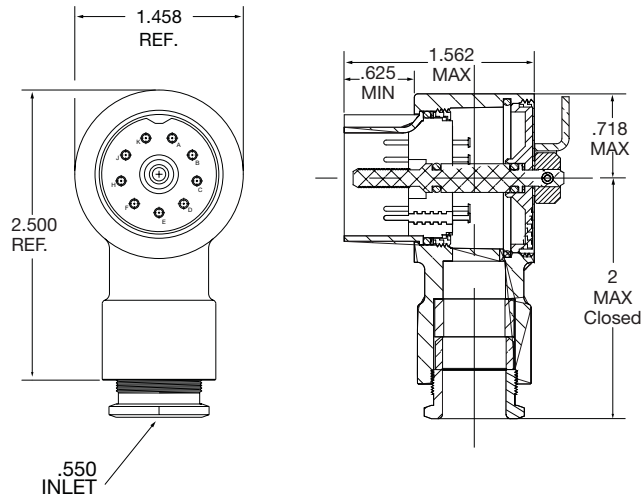


UW2020MA00

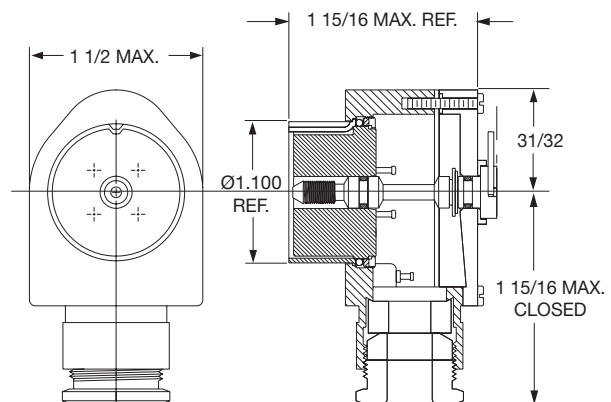
## Specifications

ELECTRICAL	
<b>Dielectric Strength</b>	
4, 9 & 14 Contacts	2800 Volts RMS
19 Contacts	2000 Volts RMS
30 Contacts	1500 Volts RMS
<b>Insulation Resistance</b>	1000 Megohms min. at 500 Volts DC
<b>Voltage Drop</b>	
4 Contact	20 MV at 35 Amps
9, 14 & 19 Contact	21 MV at 20 Amps
30 Contacts	25 MV at 7.5 Amps
MECHANICAL	
Air Pressure	2.5 PSI
Water Immersion	6 ft., 48 hours
Durability	500 cycles with a coupling torque of 25 in.-lbs.
Contact Retention	15 lbs.
Insert Strength	400 lbs.

### UW 1220 Plug



### UW 1320 Plug



# UW Power Connectors



## Ordering Information - Part Numbering System

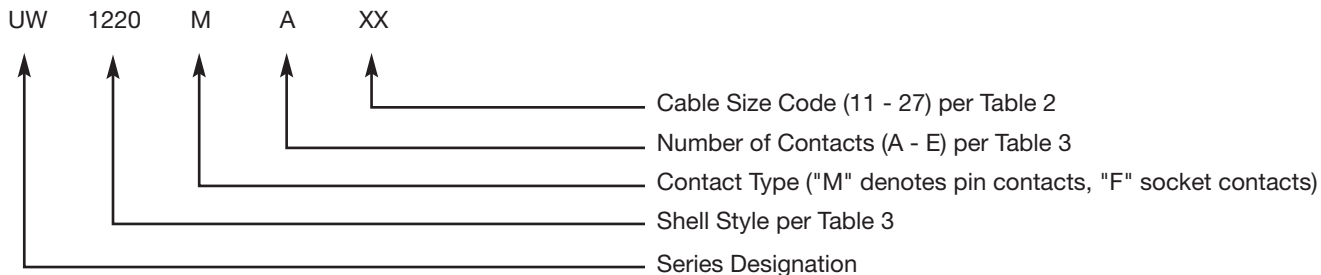


TABLE 1						
CI PART NUMBER	STYLE	CONTACT TYPE	MOUNTING STYLE	NUMBER OF CONTACTS (CODE LETTER)	CONTACT SIZE	
UW1220FAXX	Round Plug	Socket	Cable	4 (A)	12	
UW1220FBXX				9 (B)		
UW1220MAXX		Pin		4 (A)		
UW1220MBXX				9 (B)		
UW1320FAXX	Small Cathedral Plug	Socket		4 (A)		16
UW1320FBXX				9 (B)		
UW1320MAXX		Pin		4 (A)		
UW1320MBXX				9 (B)		
UW1326FCXX	Large Cathedral Plug	Socket	14 (C)	20		
UW1326FDXX			19 (D)			
UW1326FEXX			30 (E)			
UW1326MCXX		Pin	14 (C)			
UW1326MDXX			19 (D)			
UW1326MEXX			30 (E)			
UW2020FA00	Small Receptacle	Socket	Panel	4 (A)	16	
UW2020FB00				9 (B)		
UW2020MA00		Pin		4 (A)		
UW2020MB00				9 (B)		
UW2026FC00	Large Receptacle	Socket		14 (C)		20
UW2026FD00				19 (D)		
UW2026FE00				30 (E)		
UW2026MC00		Pin		14 (C)		
UW2026MD00			19 (D)			
UW2026ME00			30 (E)			

TABLE 2		
"XX" VALUE	CABLE DIAMETER (INCHES)	NUMBER OF CONTACTS
11	0.292 to 0.343	4, 9
13	0.323 to 0.406	4, 9
15	0.386 to 0.486	4, 9
17	0.448 to 0.531	4, 9
19	0.511 to 0.593	4, 9, 14, 19, 30
21	0.573 to 0.656	4, 9, 14, 19, 30
23	0.636 to 0.718	14, 19, 30
25	0.698 to 0.781	14, 19, 30
27	0.761 to 0.843	14, 19, 30

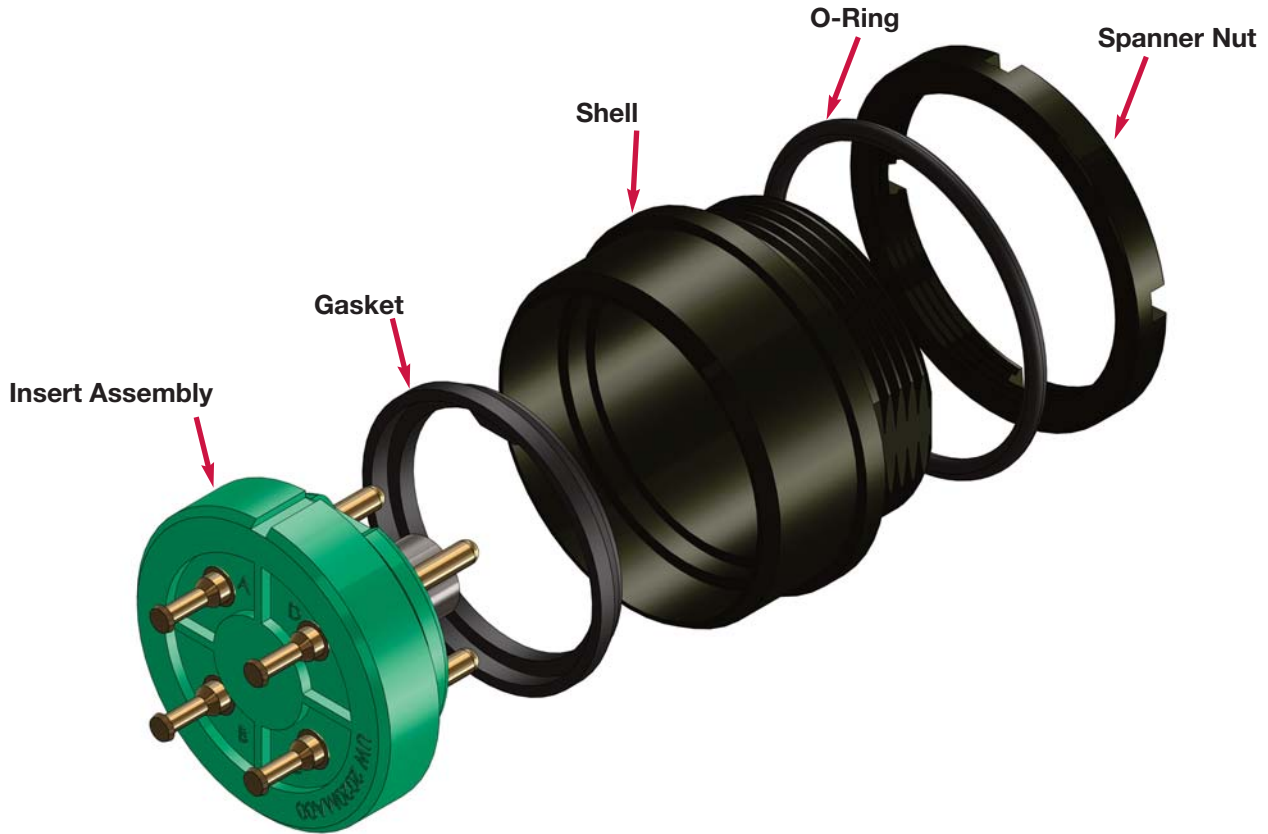
UW Connectors

TABLE 3		
CONTACTS DESIGNATION	SHELL STYLE DESIGNATION	
A = 4	1220	Round Plug
B = 9	1320	Small Cathedral Plug
C = 14	1326	Large Cathedral Plug
D = 19	2020	Small Receptacle

# UW Power Receptacles

## Features Overview

UW2020MA00



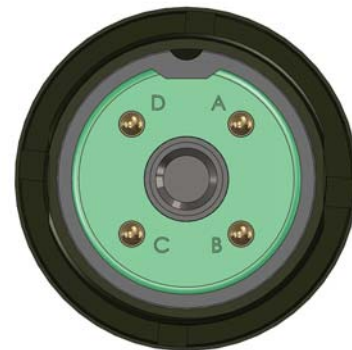
Rear View



Side View



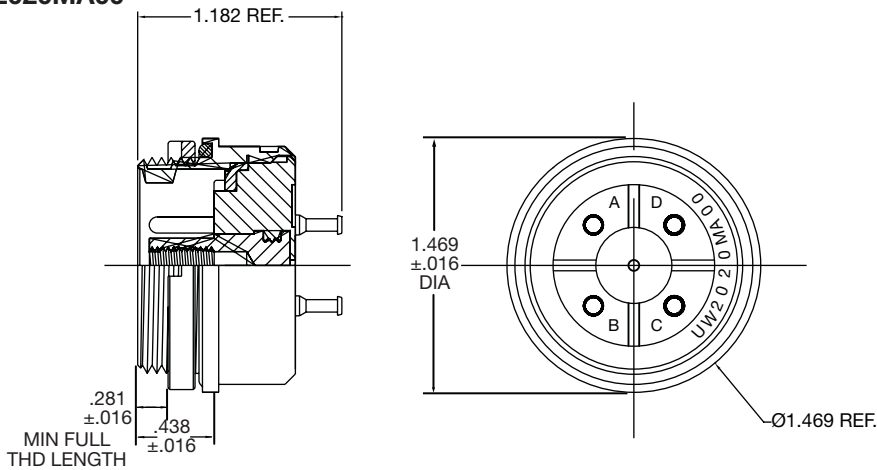
Front View



# UW Power Receptacles

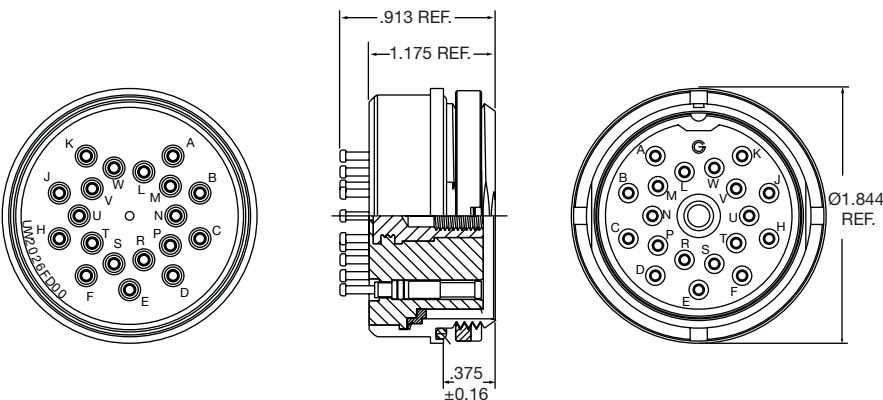
UW RECEPTACLES						
CI PART NUMBER	NUMBER OF CONTACTS	TYPE	CONTACT TYPE	CONTACT SIZE	MOUNT	MATES WITH PLUG
UW2020FA00	4	Small Receptacle	Socket	12	Panel	UW1220 UW1320 series
UW2020FB00	9		Pin			
UW2020MA00	4					
UW2020MB00	9	Large Receptacle	Socket	16		UW2026 series
UW2026FC00	14			20		
UW2026FD00	19					
UW2026FE00	30		Pin	16		
UW2026MC00	14			20		
UW2026MD00	19					
UW2026ME00	30					

**UW2020MA00**



**UW2026FE00**

**UW2026FD00**



Consult factory for additional information.

UW Connectors

# Custom Shell Configurations

Custom



CI55181/3-03S



CI55181/1-01S



CI55181/3-03S

## Stackable Power Connectors

### Features and Benefits

**Exclusive** design allows multiple radios to draw power from a single M55181 receptacle.

**Space-saving** design eliminates the need for “Y” cables or other external power splitting apparatus.

**Mates** to standard M55181/4-01 and M55181/2-01 receptacles.

**Accommodates** any M55181/3 or /1 series plug from a second radio, no need to retrofit existing cables.

**Robust** aluminum housing, cadmium plate an olive drab chromate stand up to use in harsh environments.

**Precision** contacts, gold over nickel.

**Same ruggedized** features as QPL M55181 mid-range power connectors.

**Worry-free** 500 mate/unmate cycle rating.

### Specifications

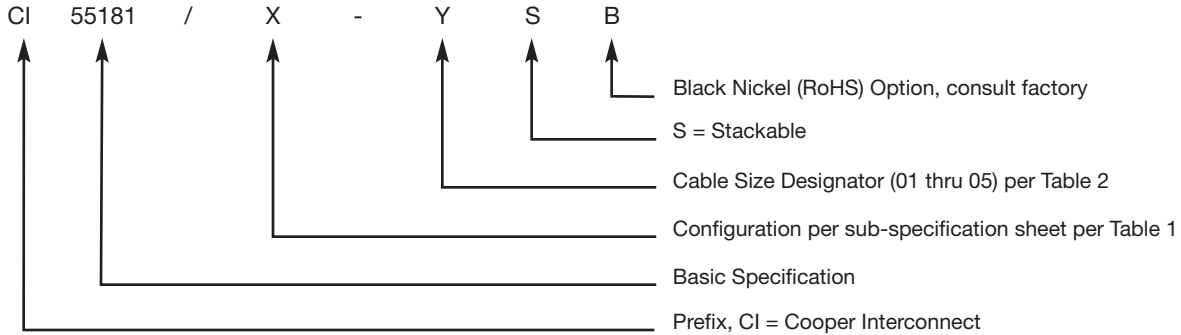
MATERIALS AND FINISHES	
<b>Shells</b>	
Plugs	Aluminum alloy body, steel alloy nosepiece 300 $\mu$ ” cadmium plate with olive-drab chromate.
<b>Contacts</b>	
Socket	High-conductivity copper alloy with beryllium copper spring element, 30 $\mu$ ” gold over 10-100 $\mu$ ” nickel.
Pin	Yellow brass, 30 $\mu$ ” gold over 50-100 $\mu$ ” nickel.
Insulator	Glass-filled diallyl phthalate, type GDF-30 F or SDG-F.

ELECTRICAL	
<b>Dielectric Strength</b>	
4 Contacts	2000 Volts RMS
9, 18 Contacts	1500 Volts RMS
<b>Insulation Resistance</b>	1000 Megohms min. at 500 Volts DC
<b>Voltage Drop</b>	
4 Contact	20 mV at 35 Amps
9, 18 Contact	25 mV at 7.5 Amps

MECHANICAL	
Air Pressure	2.5 PSI.
Water Immersion	6 ft., 48 hours.
Durability	500 cycles with a coupling torque of 25 in.-lbs.
Contact Retention	10 lbs.
Insert Strength	400 lbs.

# Custom Shell Configurations

## Ordering Information - Part Numbering System



CI GENERAL PART NUMBER	"X" VALUE	TYPE	MOUNT	CONTACT NUMBER	CONTACT TYPE	AMPS	CONTACT SIZE	TERMINATION
CI55181/X-YS	1	Plug	Cable	4	Socket	35	12	Turret
CI55181/X-YS	3	Plug	Cable	4	Pin	35	12	Turret
CI55181/X-YS*	7	Plug	Cable	18	Pin	7.5	20	Soldercups

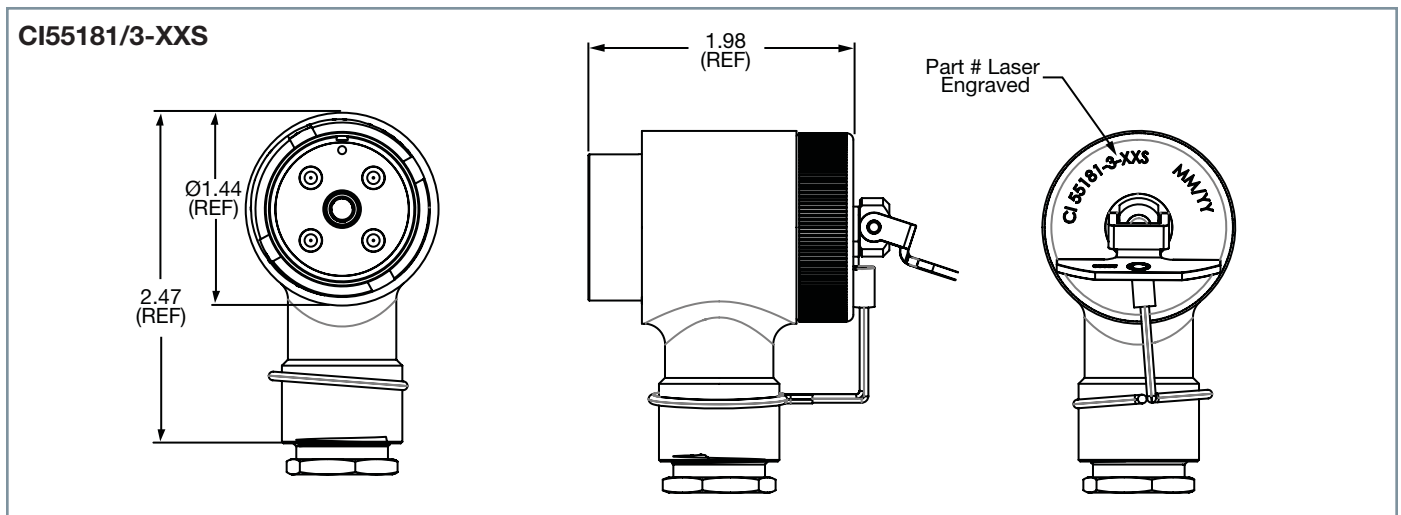
"Y" VALUE	CABLE DIAMETER (INCHES)
01	.343/.292
02	.406/.323
03	.531/.448
04	.593/.511
05	.468/.386

Custom

## Mating Instructions

1. Mating to the receptacle is accomplished quickly and securely by turning the stackable M55181's drawscrew – no additional tools or fasteners needed.
2. Back cap is removed by rotating cap counter-clockwise using the knurled section, exposing the secondary receptacle interface.
3. The ground power assembly is then mated in the traditional manner to the stackable connector.

For detailed termination instructions, request Assembly Instructions A1-001.



# Custom Shell Configurations

Custom



CI55181/1-DE-AD/XX



CI55181/8-DH-01



CI55181/8-DH-01

## Dual Entry and Dual Header Stacking Connectors

### Features and Benefits

**DE (Dual Entry)** provides two cable entry points into one housing for cable plugs (/1, /3, /5, /7). Available in 90° and 75° entry points.

**DH (Dual Header)** provides two mating faces (panel receptacles, /2, /4, /6, /8) within one connector. This enables a cable plug (/1, /3, /5, /7) to mate to each side.

**Mates** to standard mid-power (M55181/X, GC55181/X, and CI55181/X) connectors and assemblies.

**Robust** aluminum housing, cadmium plate and olive drab chromate stand up to use in harsh environments.

**Precision** contacts, gold over nickel.

**Provides** a lower cost alternative to the traditional “Y” cables. Provides greater flexibility in cable routing options.

**Same ruggedized** features as QPL 55181 mid-range power connectors.

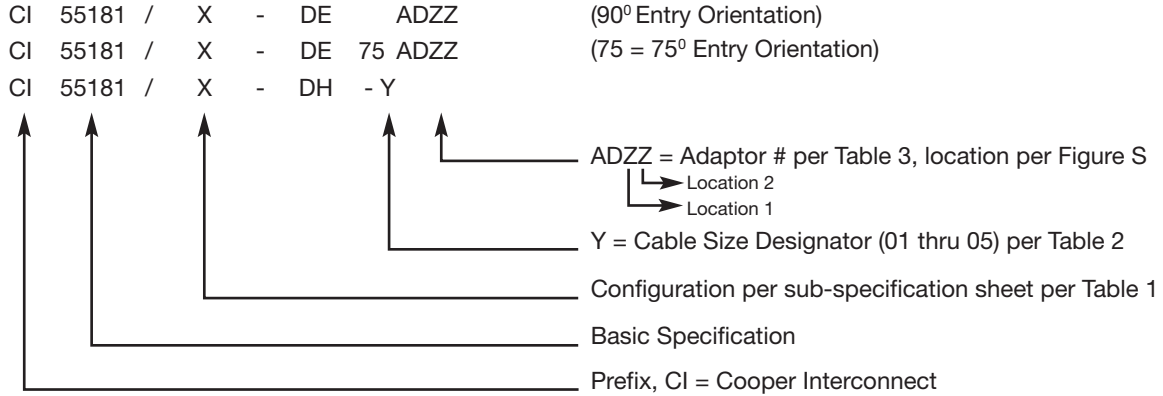
**Worry-free** 500 mate/unmate cycle rating.

### Specifications

MATERIALS AND FINISHES	
<b>Shells</b>	
Plugs	Aluminum alloy body, steel alloy nosepiece 300u” cadmium plate with olive-drab chromate.
<b>Contacts</b>	
Socket	High-conductivity copper alloy with beryllium copper spring element, 30u” gold over 10-100u” nickel.
Pin	Yellow brass, 30u” gold over 50-100u” nickel.
Insulator	Glass-filled diallyl phthalate, type GDF-30 F or SDG-F.
ELECTRICAL	
<b>Dielectric Strength</b>	
4 Contacts	2000 Volts RMS.
9, 18 Contacts	1500 Volts RMS
<b>Insulation Resistance</b>	1000 Megohms Min. at 500 Volts DC.
<b>Voltage Drop</b>	
4 Contact	20 mV at 35 Amps.
9, 18 Contacts	25 mV at 7.5 Amps
MECHANICAL	
Air Pressure	2.5 PSI.
Water Immersion	6 ft., 48 hours.
Durability	500 cycles with a coupling torque of 25 in.-lbs.
Contact Retention	10 lbs.
Insert Strength	400 lbs.

# Custom Shell Configurations

## Ordering Information - Part Numbering System



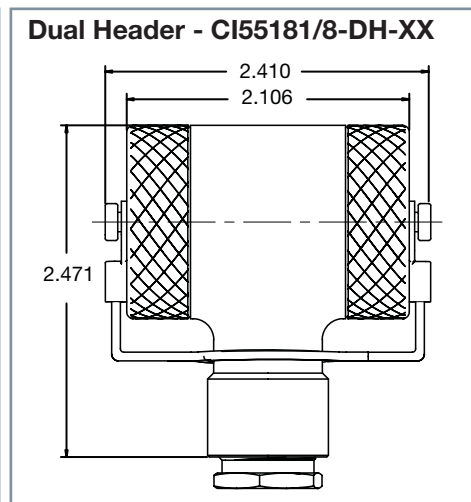
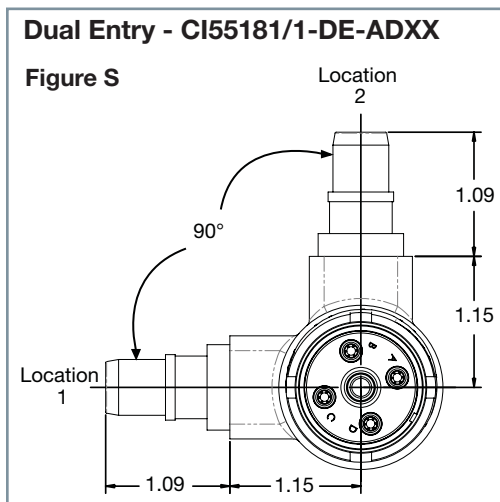
\*Example Part Number - CI55181/3-DEAD13

\*\*Note: For black nickel (RoHS) plating option, consult factory.

"X" VALUE	TYPE	MOUNT	CONTACT NUMBER	CONTACT TYPE	AMPS	CONTACT SIZE	TERMINATION
1	Plug	Cable	4	Socket	35	12	Turret
2	Receptacle	Panel	4	Pin	35	12	Turret
3	Plug	Cable	4	Pin	35	12	Turret
4	Receptacle	Panel	4	Socket	35	12	Turret
5	Plug	Cable	9	Pin	7.5	20	Solder Cup
6	Receptacle	Panel	9	Socket	7.5	20	Solder Cup
7	Plug	Cable	18	Pin	7.5	20	Solder Cup
8	Receptacle	Panel	18	Socket	7.5	20	Solder Cup

"Y" VALUE	CABLE DIAMETER (INCHES)
01	.343/.292
02	.406/.323
03	.531/.448
04	.593/.511
05	.468/.386

Adaptor #	Adaptor ID	Adaptor OD
0	N/A	N/A
1	.203	.303
2	.297	.397
3	.390	.490



Consult factory for custom configurations.

Custom

# Custom Shell Configurations

Custom



CI55181/2-01SBN-03



CI55181/2-01SBE-03



CI55181/4-01SBE-03

## SB Series Power Connectors

### Features and Benefits

**Exclusive** straight backshell mid-range power connector allows cable mounting of M55181 panel mount receptacles.

**Shielded ferrules** enables termination of cable shields.

**Mates** to any M55181/1-, /3-, /5- or /7- series plug.

**Sealed aluminum housing**, cadmium plate and olive drab chromate for use in harsh environments. Also available in electroless nickel plating.

**Gold** over nickel contacts standard.

**Mating** is accomplished quickly and securely by turning the plug's drawscrew - no additional tools required.

**Perfect** for "Y" extension cables and other external power splitting apparatus.

**Worry-free** 500 mate/unmate cycle rating.

### Specifications

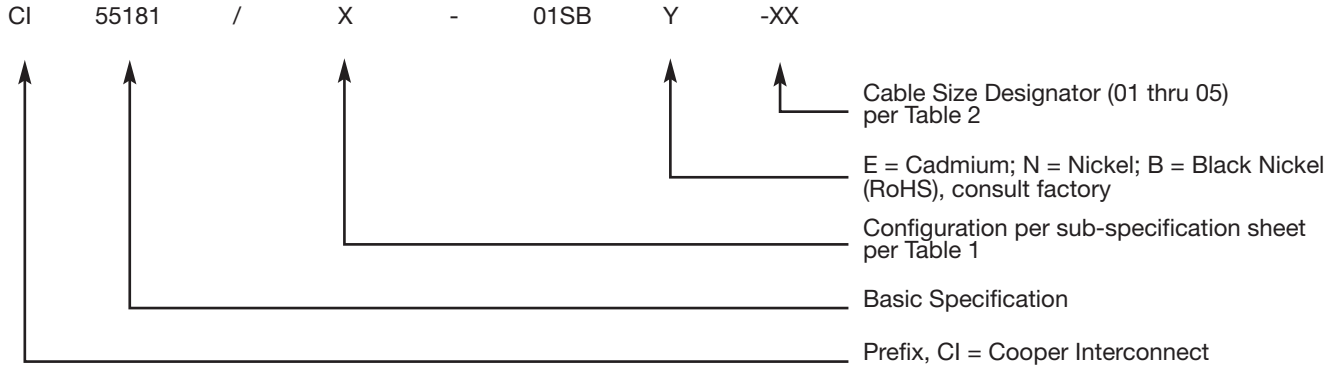
MATERIALS AND FINISHES	
<b>Shells</b>	
Plugs	Aluminum alloy body, brass nosepiece 300 $\mu$ " cadmium plate with olive-drab chromate or nickel.
<b>Contacts</b>	
Socket	High-conductivity copper alloy with beryllium copper spring element, 30 $\mu$ " gold over 10-100 $\mu$ " nickel.
Pin	Brass, 30 $\mu$ "gold over 50-100 $\mu$ " nickel.
Insulator	Glass-filled diallyl phthalate, type GDF-30 F or SDG-F.

ELECTRICAL	
<b>Dielectric Strength</b>	
4 Contacts	2000 Volts RMS
9, 18 Contacts	1500 Volts RMS
<b>Insulation Resistance</b>	1000 Megohms Min. at 500 Volts DC
<b>Voltage Drop</b>	
4 Contact	20 mV at 35 Amps
9, 18 Contacts	25 mV at 7.5 Amps

MECHANICAL	
Air Pressure	2.5 PSI
Water Immersion	6 ft., 48 hours
Durability	500 cycles with a coupling torque of 25 in.-lbs.
Contact Retention	10 lbs.
Insert Strength	400 lbs.

# Custom Shell Configurations

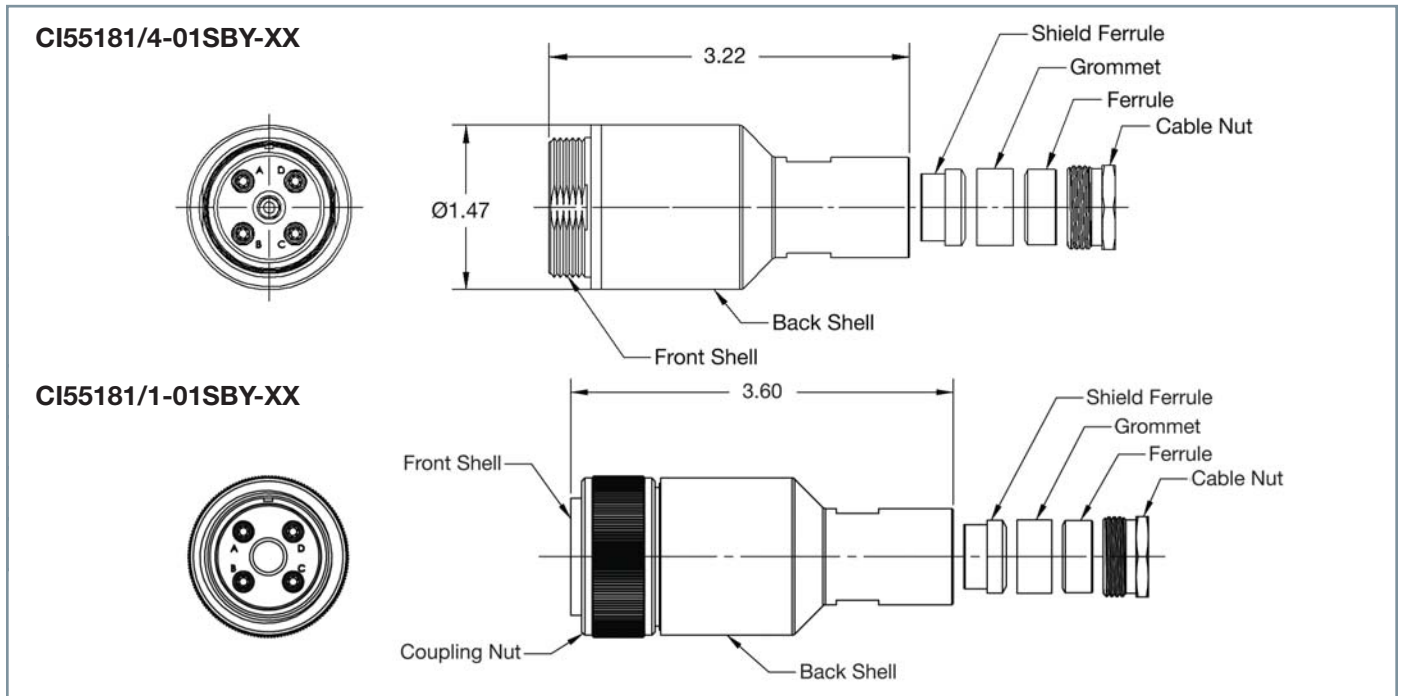
## Ordering Information - Part Numbering System



CI GENERAL PART NUMBER	"X" VALUE	TYPE	MOUNT	CONTACT NUMBER	CONTACT TYPE	AMPS	CONTACT SIZE	TERMINATION
CI55181/1- Y*	1	Plug	Cable	4	Socket	35	12	Turret
CI55181/2- Y*	2	Receptacle	Panel	4	Pin	35	12	Turret
CI55181/3- Y*	3	Plug	Cable	4	Pin	35	12	Turret
CI55181/4- Y*	4	Receptacle	Panel	4	Socket	35	12	Turret
CI55181/5- Y*	5	Plug	Cable	9	Pin	7.5	20	Solder Cup
CI55181/6- Y*	6	Receptacle	Panel	9	Socket	7.5	20	Solder Cup
CI55181/7- Y*	7	Plug	Cable	18	Pin	7.5	20	Solder Cup
CI55181/8- Y*	8	Receptacle	Panel	18	Socket	7.5	20	Solder Cup

XX" VALUE	CABLE DIAMETER (INCHES)
01	.343/.292
02	.406/.323
03	.531/.448
04	.593/.511
05	.468/.386

Custom



# Filtered Connectors

## Product Overview

When EMI (electromagnetic interference) issues arise, the 55181 Panel Mount connectors can be filtered to remove undesirable frequencies. The filters used are planar capacitors. Each filter surrounds the pin to be filtered and is connected to the shell for ground.

## Features and Benefits

**Same robust performance** as the M55181 connectors.

**Filter values** designed to your specific requirements.

**Available** in all four panel mount configurations.

Contact the factory for your specific filtering requirements.

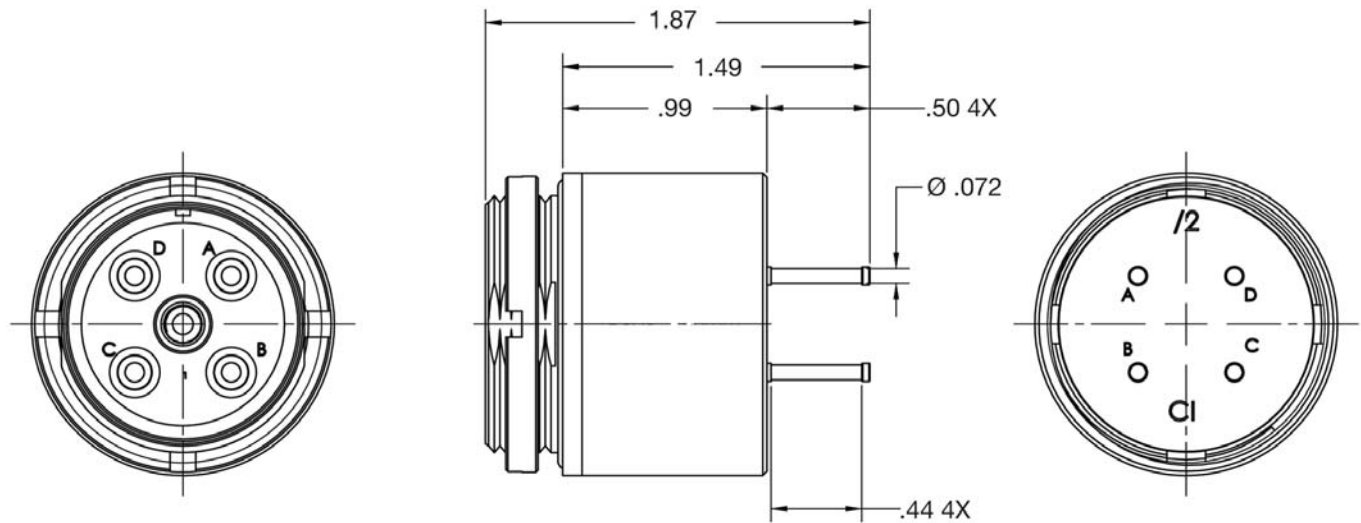


CI55181/2F3-103



CI55181/4F3-103

CI55181/2F8-474



## Dust Caps

Cooper Interconnect offers dust caps for any MW20 power connector. All are manufactured to meet requirements of MIL-DTL-55181 and mounted to a panel with a .125 max. thickness. Custom dust caps available for Nuclear Biological Chemical (NBC) applications, consult factory for details.

DUST CAPS				
CI PART NUMBERS	USED ON	LANYARD STYLE	LENGTH	END CONFIGURATION
GC821	MW20 Power	Brass Chain	3.50"	1.255 ID Ring
GC821-1	MW20 Power	Nylon Cord	3.50"	1.255 ID Ring
GC821-3	MW20 Power	Brass Chain	6.00"	0.280 Dia. Loop
GC821-4	MW20 Power	Brass Chain	2.25"	0.750 ID Ring

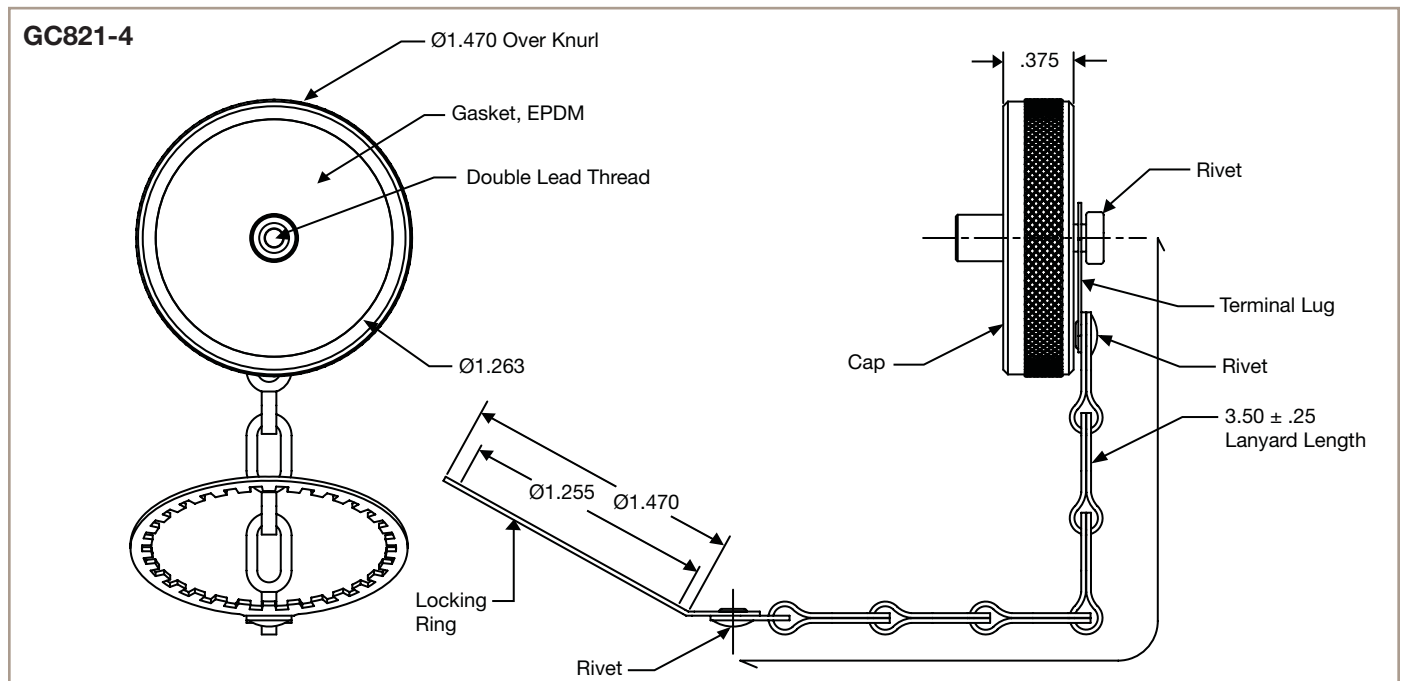
\*For black nickel (RoHS) plating option and additional options, contact the factory.



GC821

## Specifications

MATERIALS & FINISHES	
<b>SHELL</b>	
GC821	Aluminum Alloy Shell, Cadmium Plate
GC821-3	
GC821-4	
GC821-1	Half Hard Brass Cad. Plate





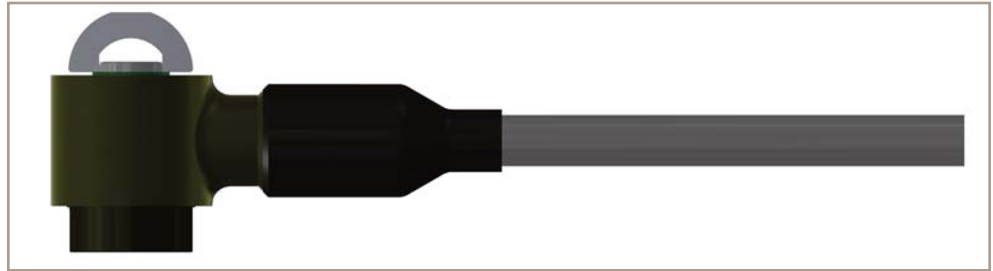
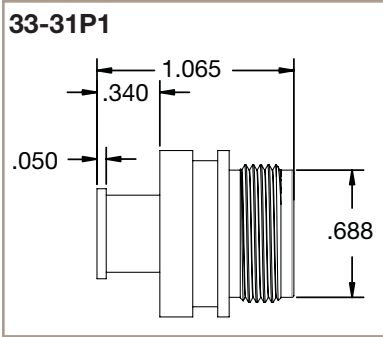
### Custom Shield Adaptor

Custom 45° shield adaptor fits all the “adaptor” style cable plugs and provides a 45° cable exit. It can be configured to exit in any direction from the plug.

Consult factory for other custom shield adaptors and custom shield ferrule sets, similar to those used on the SB series. These are used on all the “non adaptor” type cable plugs.

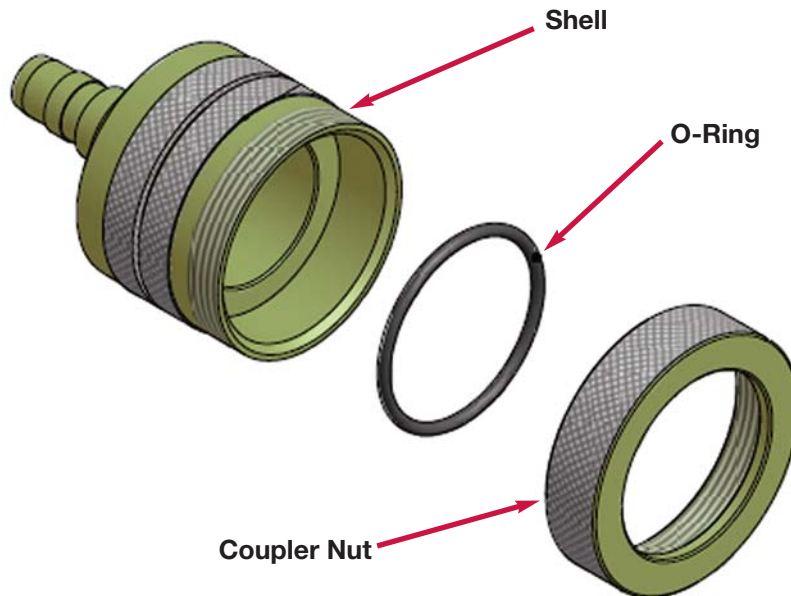
### Cable Shield Adaptor

The mold adaptor, part #33-31P1, is a threaded adaptor that is attached to the M55181 shell. It is used in place of the standard rear end components as it provides an area to attach the cable shield by the use of a standard “band it” clamp. The assembly (M55181 and cable) is then placed in a mold creating an attractive and efficient shield and cable termination method which in some cases may prove to be more cost effective than the standard assembly methods.



### Custom Back Shell

GC18-200



For Panel Mount 55181 Connectors.

\*Consult factory for additional options.

# Assembly Instructions & Tools

## Assembly Instructions

For all M55181/all, GC55181/all and CI55181/all; see the appropriate MIL-DTL-55181 specification.

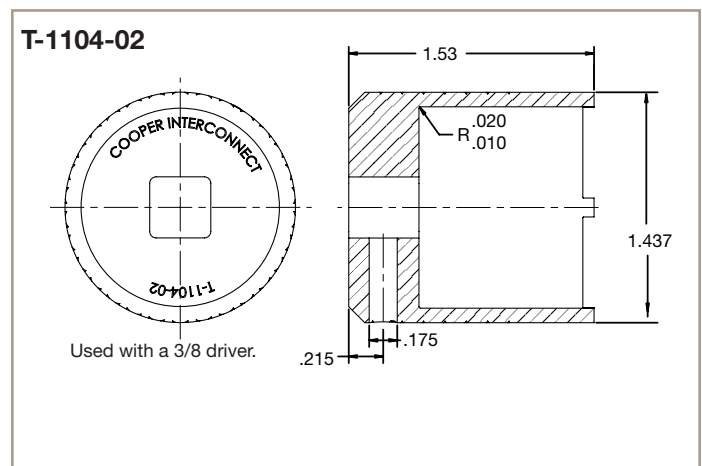
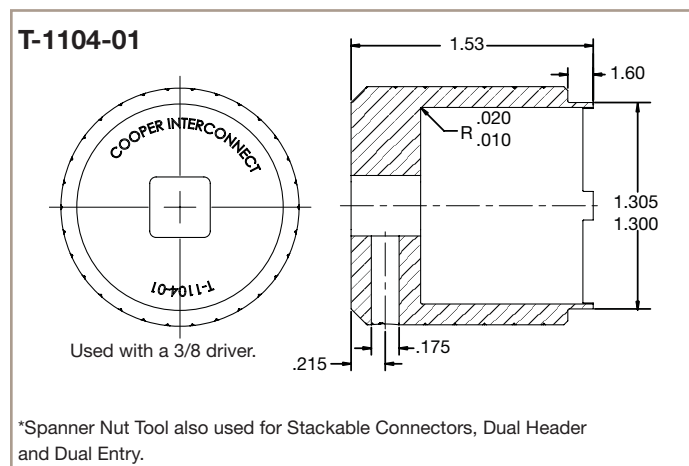
For the Stacking CI55181/X-YYs, please see Assembly Instructions A1-001. These may be obtained by request from [info@cooperinterconnect.com](mailto:info@cooperinterconnect.com).

## Spanner Nut Tool

CABLE MOUNT		
COOPER PART NUMBER	RECOMMENDED SPANNER NUT WRENCH FORCE	SPANNER NUT TOOL PART NUMBER
M55181/1-0X GC55181/1-0X CI55181/1-0X	90-95" lbs	T-1104-01
M55181/3-0X GC55181/3-0X CI55181/3-0X		
M55181/5-0X GC55181/5-0X CI55181/5-0X		
M55181/7-0X GC55181/7-0X CI55181/7-0X		

\*Recommended torque value for cable nut is 34-40" lbs.

PANEL MOUNT		
COOPER PART NUMBER	RECOMMENDED SPANNER NUT WRENCH FORCE	SPANNER NUT TOOL PART NUMBER
M55181/2-01	21-23' lbs	T-1104-02
M55181/4-01		
M55181/6-01		
M55181/8-01		



# INNOVATION YOU CAN TRUST IN THE MOST CHALLENGING CONDITIONS

Cooper Interconnect is a leading supplier of high-end audio, data and power connectors for tactical communications platforms, assuring performance in mission-critical applications. Our engineering team designs reliable connectivity solutions critical to support a Network-Centric Battlefield. We deliver proven components to support integrated communications and operations in the global arena. Through leading-edge technology and a proven development process, we give you a proven interconnect solution for the sea, land, and air from the battlefield to home.



## Audio & Data Connectors

Used for transmitting audio signals and control signals in harsh environments, these connectors are fully qualified to the military specifications **MIL-DTL-55116** and **MIL-DTL-10544**. Cooper Interconnect offers a standard line of audio connectors, and excels in developing custom configurations to resolve specific application needs, including the need for high-density connectivity in a small footprint, right-angles for cramped spaces, and extended audio connectors for armour feed thru applications to mate penetrator cables. Cooper Interconnect's line of data connectors come in a variety of packages and densities. The ever present drive for "smaller, lighter, faster", leads to new packages like our new Mini Data products (pictured example is less than 0.5" diameter).



## GPS Connectors

Battle-field tested and fully ruggedized for military use, our GPS connectors are the product to depend on for today's unique radio applications. Machined shells of T6 aluminum provide excellent performance and resist impact damage. Precision signal and coax contacts assure optimal signal strength with minimal loss. Our unique shape for mating shells and inserts make for an exceptional seal, meeting military water immersion requirements. Cooper Interconnect offers panel mount GPS connectors with available mates, which fit most current military GPS systems.

### Filtered Connectors

Superior communications support in the battlefield means ensuring protection against electro-magnetic (EMI) and radio frequency interference (RFI). Cooper Interconnect offers an extensive line of filtered connectors in both standard and custom configurations. Filtered connectors use both Planar and Surface Mount technologies in C, LC, PI, T or extended PI configurations. Our designs meet nearly every filtration need, with custom capacitances and testing protocols available.



### Intercom Connectors

Cooper Interconnect's intercom connectors are an integral part of over 120,000 major military intercom systems deployed throughout the world. The metal and overmolded shell configurations are designed to fully meet the performance criteria for **MIL-DTL-26482** specifications while minimizing space on the intercom unit.



### Antenna Connectors

Our battle-field tested, rugged antenna connectors enable a broader product options for today's radio/communication systems. The antenna connectors provide a sturdy and durable mount for whip and blade-type antennae on hand-held and man-pack radios. Cooper Interconnect's space-saving design fits into the demand for smaller hand-held radios. With our sure, secure contact mating every time, you don't have to worry about performance under the roughest conditions.



### Battery Connectors

Cooper Interconnect's battery connectors provide a secure connection when it's needed most. We design to demanding military and industrial standards, or can develop a custom configuration to solve your unique battery connection requirements. Standard chromate coating over 6061-T6 aluminum alloy shells and non-hermetic sealing withstands up to 15 PSI for optimal operation in rigorous applications.



## 55181 Mid-Range Power Connectors are Manufactured at

### Cooper Interconnect

23 Front Street  
Salem, NJ 08079  
P: 856-935-7560  
F: 856-935-0102

### Contact Customer Service for general inquiries, orders, or quotes.

P: 1-800-840-0502  
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Orders: [ciorders@cooperindustries.com](mailto:ciorders@cooperindustries.com)  
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