NEW PRODUCT BULLETIN 679

SHIELDED
MULTI-CON-X®
SEALED CONNECTORS

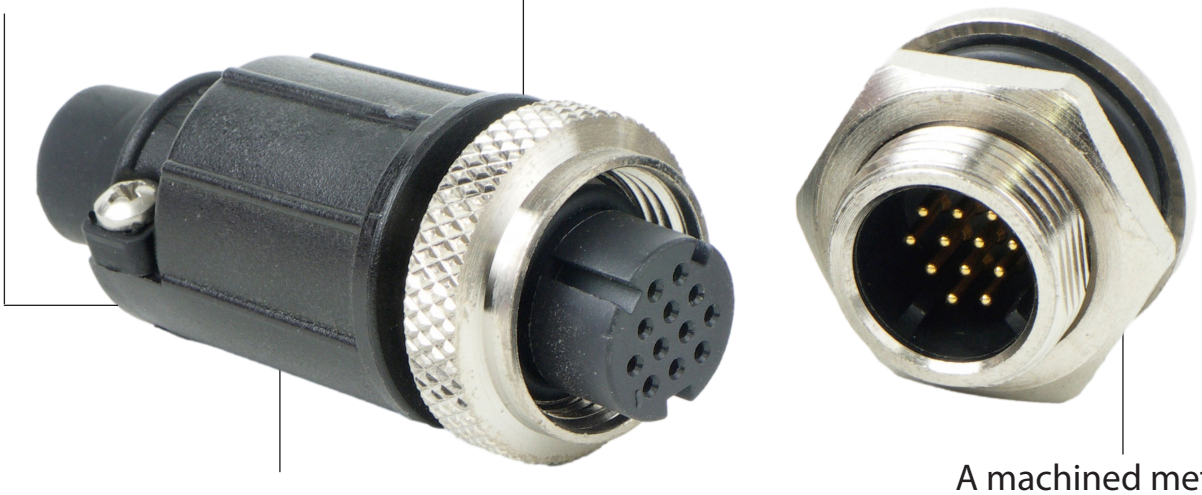
MADE IN THE U.S.A.

Switchcraft®
CONXALL®

HARSH ENVIRONMENT CONNECTIVITY SOLUTIONS

Special shielding tape offers effective EMI shielding

Rugged design with threaded coupling mechanism



Available as field installable connectors or factory molded cable assemblies

A machined metal panel connector and coupling ring provides enhanced durability and EMI shielding

EXPANDED PRODUCT LINE

The Shielded Multi-Con-X® from Conxall® has been trusted for years as a rugged harsh environment connector with added RF/EMI protection. The latest expansion offers the option of female sockets and the panel mount receptacle and male pins on the cable end connector, allowing customers to choose the option that best fits their direction of signal flow for added safety. Up to 12 #20 contacts are available. The shielded Multi-Con-X® is sealed to IP68 and offers UL F1 rated UV resistance.

IP68 RATED WATER RESISTANCE

The Shielded Multi-Con-X® series is sealed to IP68 when mated for harsh environment durability

360° RF/EMI SHIELDED

A copper alloy housing with non-magnetic EN plating and the included conducting tape provide effective shielding

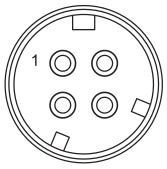
MADE IN THE USA CONXALL QUALITY

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

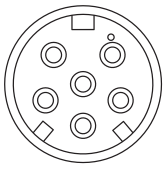
601 EAST WILDWOOD AVE, VILLA PARK, IL 60181 - 630.834.7504 - SALES@CONXALL.COM

CONTACT LAYOUTS

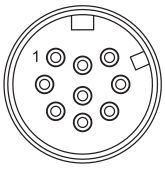
Panel Mount Connectors



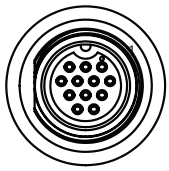
(2-4)-POSITION
#16 PIN CONTACT
"F" KEY



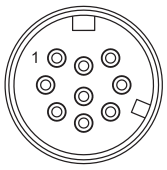
(6)-POSITION
#16 PIN CONTACT
"E" KEY



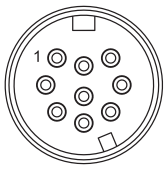
(2-9)-POSITION
#20 PIN CONTACT
"A" KEY



(2-12)-POSITION
#20 SOCKET CONTACT
"F" KEY



(2-9)-POSITION
#20 PIN CONTACT
"B" KEY



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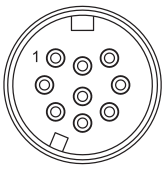
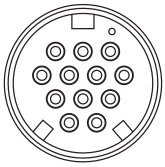
#20 PIN CONTACT
"C" KEY

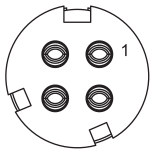


(2-9)-POSITION
#20 PIN CONTACT
"D" KEY

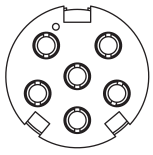


(2-12)-POSITION
#20 PIN CONTACT
"E" KEY

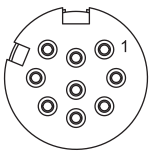
Cable Connectors



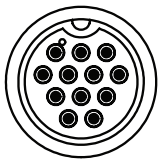
(2-4)-POSITION
#16 SOCKET CONTACT
"F" KEY



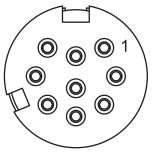
(6)-POSITION
#16 SOCKET CONTACT
"E" KEY



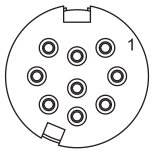
(2-9)-POSITION
#20 SOCKET CONTACT
"A" KEY



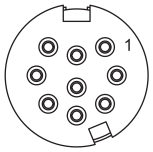
(2-12)-POSITION
#20 PIN CONTACT
"F" KEY



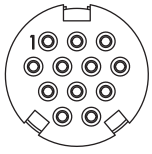
(2-9)-POSITION
#20 SOCKET CONTACT
"B" KEY



(2-9)-POSITION
#20 SOCKET CONTACT
"C" KEY

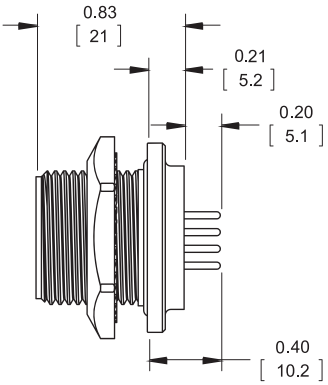


(2-9)-POSITION
#20 SOCKET CONTACT
"D" KEY

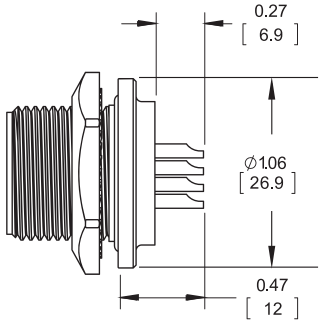


(4-12)-POSITION
#20 SOCKET CONTACT

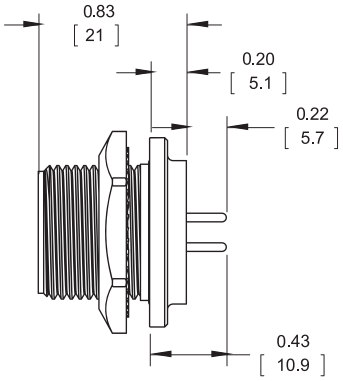
PANEL MOUNT ASSEMBLY KITS



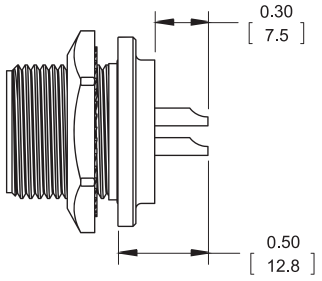
SF4281-XXPG-3XX
PANEL MOUNT CONNECTOR
#20 PC TAIL



SF4282-XXPG-3XX
PANEL MOUNT CONNECTOR
#20 SOLDER CUP

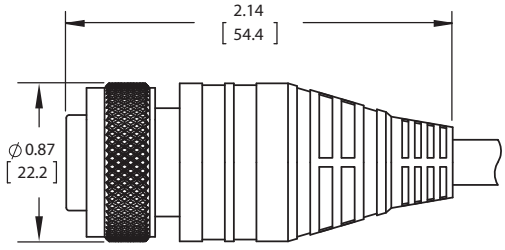


SF4381-XXPG-3XX
PANEL MOUNT CONNECTOR
#16 PC TAIL

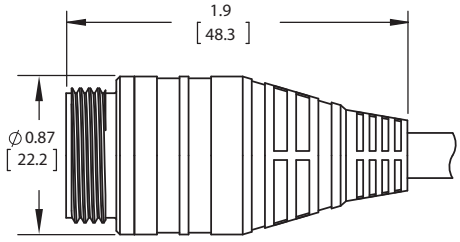


SF4382-XXPG-3XX
PANEL MOUNT CONNECTOR
#16 SOLDER CUP

CUSTOM MOLDED CABLE ASSEMBLIES

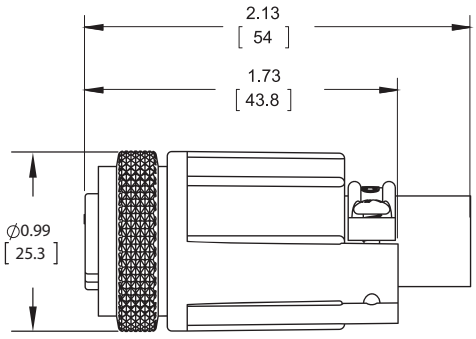


SM3X8X-XXXG
CUSTOM CABLE CONNECTOR, FEMALE
STRAIGHT OVERMOLDED



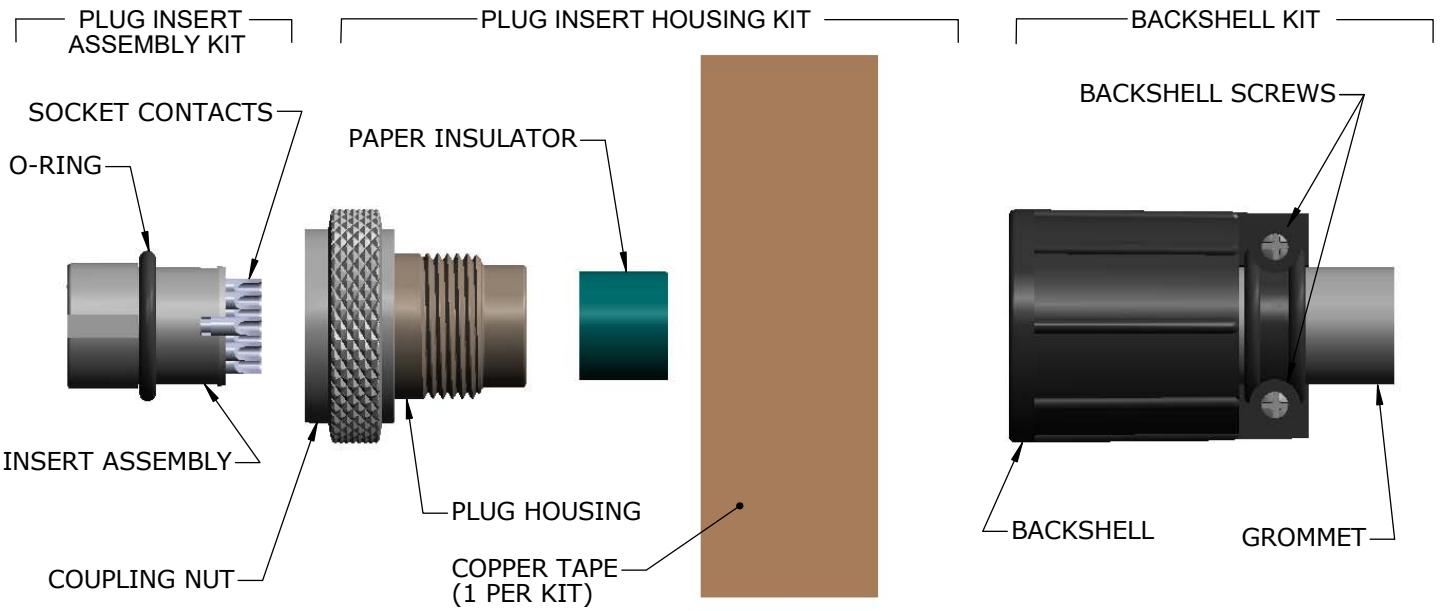
SM5X8X-XXXG
CUSTOM CABLE TO CABLE CONNECTOR, MALE
STRAIGHT OVERMOLDED

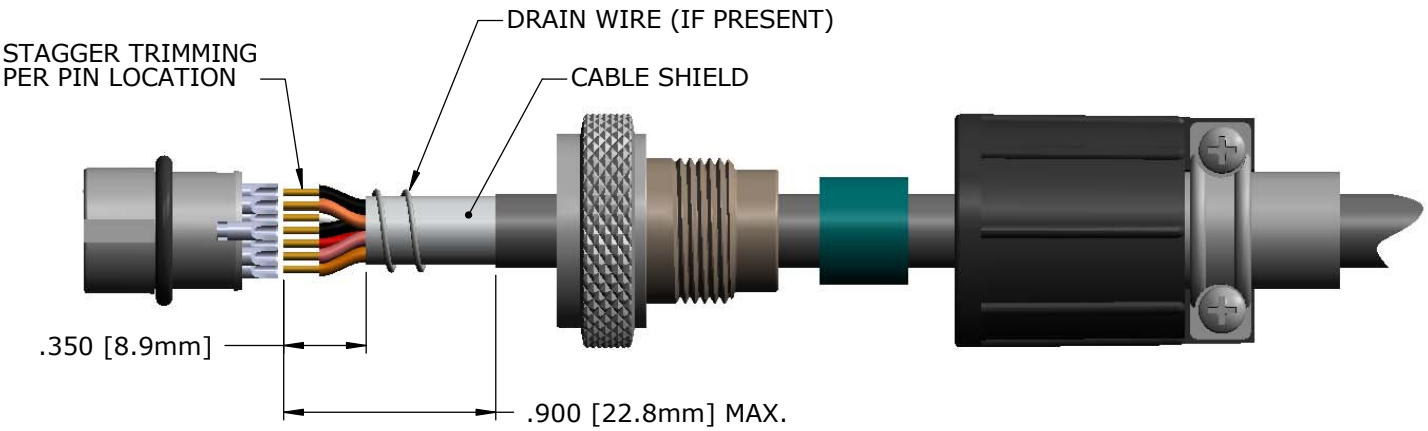
FIELD INSTALLABLE KITS



SF3X8X-XXSG-5XX
FIELD INSTALLABLE CABLE CONNECTOR KIT

	PANEL MOUNT (SOLDER)	PANEL MOUNT (PC)	CABLE END (0.200" ID)	CABLE END (0.400" ID)
2 #20 Pins	SF4282-2APG-3ES	SF4281-2APG-3ES	SF3282-2PG-520	SF3282-2PG-540
2 #20 Sockets	SF4282-2SG-3ES	SF4281-2SG-3ES	SF3282-2ASG-520	SF3282-2ASG-540
3 #20 Pins	SF4282-3APG-3ES	SF4281-3APG-3ES	SF3282-3PG-520	SF3282-3PG-540
3 #20 Sockets	SF4282-3SG-3ES	SF4281-3SG-3ES	SF3282-3ASG-520	SF3282-3ASG-540
4 #20 Pins	SF4282-4APG-3ES	SF4281-4APG-3ES	SF3282-4PG-520	SF3282-4PG-540
4 #20 Sockets	SF4282-4SG-3ES	SF4281-4SG-3ES	SF3282-4ASG-520	SF3282-4ASG-540
5 #20 Pins	SF4282-5APG-3ES	SF4281-5APG-3ES	SF3282-5PG-520	SF3282-5PG-540
5 #20 Sockets	SF4282-5SG-3ES	SF4281-5SG-3ES	SF3282-5ASG-520	SF3282-5ASG-540
6 #20 Pins	SF4282-6APG-3ES	SF4281-6APG-3ES	SF3282-6PG-520	SF3282-6PG-540
6 #20 Sockets	SF4282-6SG-3ES	SF4281-6SG-3ES	SF3282-6ASG-520	SF3282-6ASG-540
7 #20 Pins	SF4282-7APG-3ES	SF4281-7APG-3ES	SF3282-7PG-520	SF3282-7PG-540
7 #20 Sockets	SF4282-7SG-3ES	SF4281-7SG-3ES	SF3282-7ASG-520	SF3282-7ASG-540
8 #20 Pins	SF4282-8APG-3ES	SF4281-8APG-3ES	SF3282-8PG-520	SF3282-8PG-540
8 #20 Sockets	SF4282-8SG-3ES	SF4281-8SG-3ES	SF3282-8ASG-520	SF3282-8ASG-540
9 #20 Pins	SF4282-9APG-3ES	SF4281-9APG-3ES	SF3282-9PG-520	SF3282-9PG-540
9 #20 Sockets	SF4282-9SG-3ES	SF4281-9SG-3ES	SF3282-9ASG-520	SF3282-9ASG-540
10 #20 Pins	SF4282-10EPG-3ES	SF4281-10EPG-3ES	SF3282-10PG-520	SF3282-10PG-540
10 #20 Sockets	SF4282-10SG-3ES	SF4281-10SG-3ES	SF3282-10ESG-520	SF3282-10ESG-540
11 #20 Pins	SF4282-11EPG-3ES	SF4281-11EPG-3ES	SF3282-11PG-520	SF3282-11PG-540
11 #20 Sockets	SF4282-11SG-3ES	SF4281-11SG-3ES	SF3282-11ESG-520	SF3282-11ESG-540
12 #20 Pins	SF4282-12EPG-3ES	SF4281-12EPG-3ES	SF3282-12PG-520	SF3282-12PG-540
12 #20 Sockets	SF4282-12SG-3ES	SF4281-12SG-3ES	SF3282-12ESG-520	SF3282-12ESG-540
2 #16 Pins	SF4382-2FPG-3ES		Call factory	Call factory
2 #16 Sockets	Call factory		SF3382-2FSG-520	SF3382-2FSG-540
3 #16 Pins	SF4382-3FPG-3ES		Call factory	Call factory
3 #16 Sockets	Call factory		SF3382-3FSG-520	SF3382-3FSG-540
4 #16 Pins	SF4382-4FPG-3ES		Call factory	Call factory
4 #16 Sockets	Call factory		SF3382-4FSG-520	SF3382-4FSG-540
5 #16 Pins	SF4382-5EPG-3ES		Call factory	Call factory
5 #16 Sockets	Call factory		SF3382-5ESG-520	SF3382-5ESG-540
6 #16 Pins	SF4382-6EPG-3ES		Call factory	Call factory
6 #16 Sockets	Call factory		SF3382-6ESG-520	SF3382-6ESG-540

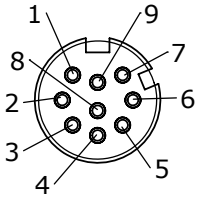




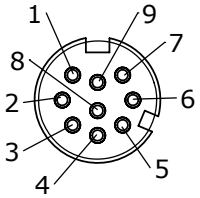
STEP 1: SLIDE BACKSHELL, PLUG HOUSING, AND INSULATOR ONTO CABLE IN THE ORDER SHOWN.

STEP 2: STRIP CABLE JACKET AND WIRES TO LENGTH. EXCESS CABLE SHIELD MUST BE TRIMMED OR WRAPPED AROUND WIRES. IF PRESENT, USE THE DRAIN WIRE TO WRAP THE CABLE SHIELD IN PLACE.

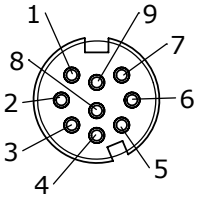
STEP 3: SOLDER WIRES IN CONTACTS ACCORDING TO YOUR SPECIFICATIONS AND PER PIN ARRANGEMENTS BELOW.
STEP 3A: INSERT THE WIRED CONTACT INTO THE CAVITY AND FIRMLY PUSH THE CONTACT UNTIL IT LOCKS INTO PLACE GIVE A SLIGHT PULL ON THE WIRE TO INSURE THE CONTACT IS SEATED. THE CONTACT BARREL SHOULD PROJECT BEYOND THE INSERT BY APPROXIMATELY 0.147 [3.7] FOR #20 CONTACTS AND 0.299 [7.6] FOR #16 CONTACTS.



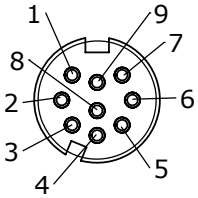
A-KEY
9-#20 AWG



B-KEY
9-#20 AWG



C-KEY
9-#20 AWG



D-KEY
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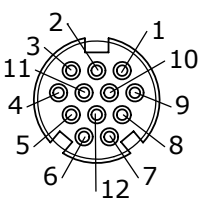
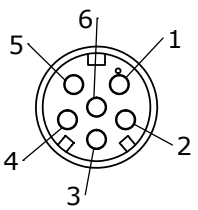
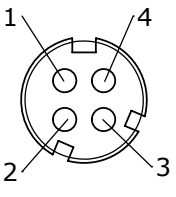


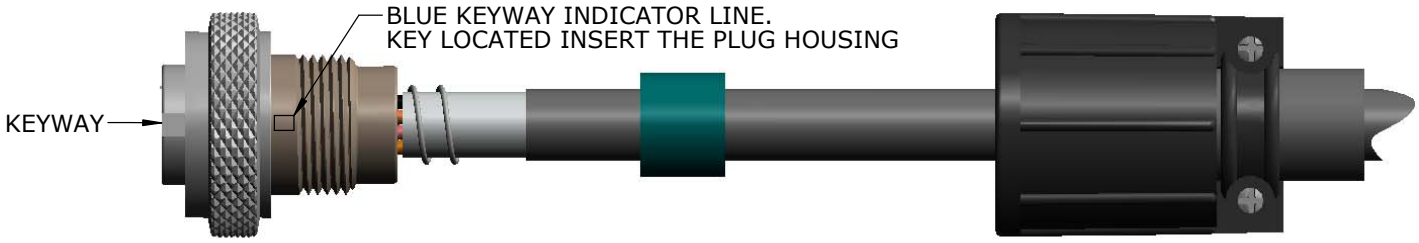
E-KEY
12-#20 AWG



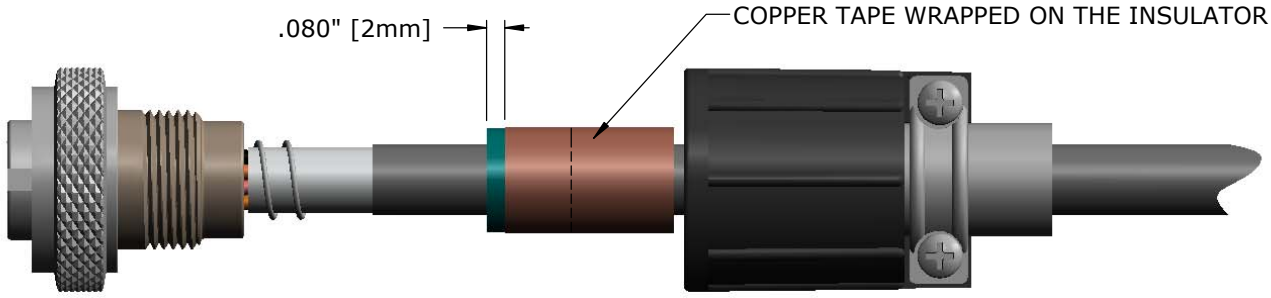
E-KEY
6-#16 AWG



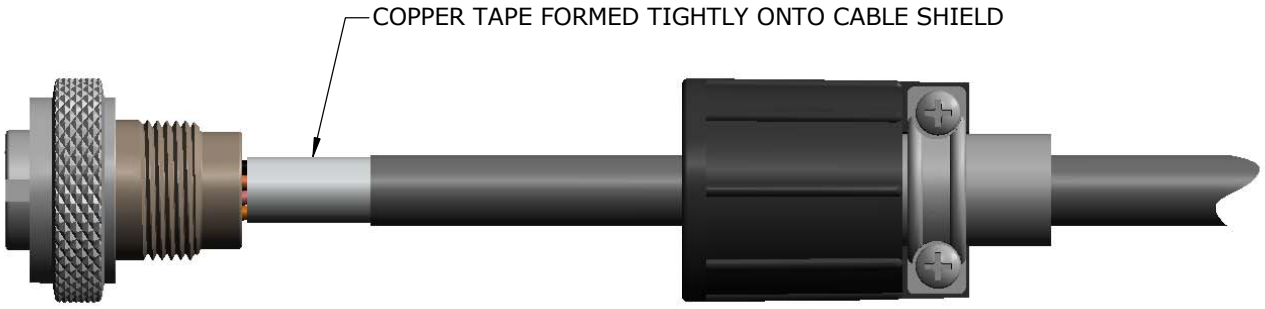
F-KEY
4-#16 AWG



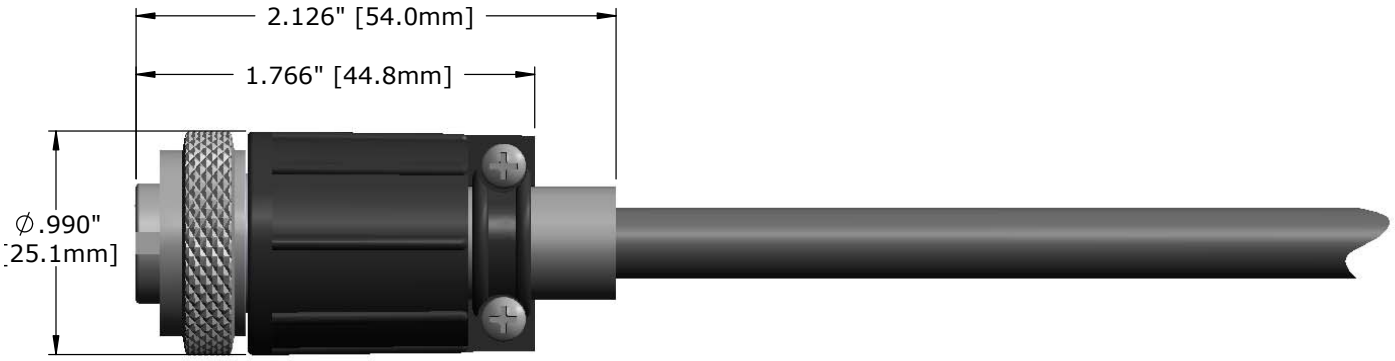
STEP 4: ALIGN MAIN KEYWAY OF PLUG INSERT WITH THE BLUE KEYWAY INDICATOR LINE AND PRESS PLUG INSERT INTO PLUG HOUSING UNTIL IT SNAPS IN PLACE. MAKE CERTAIN THAT THE O-RING (LOCATED ON THE PLUG INSERT ASSEMBLY) IS IN PLACE.



STEP 5: PEEL-OFF THE BACKING OF ONE PIECE OF COPPER TAPE. WRAP THE TAPE AROUND THE INSULATOR AS SHOWN.



STEP 6: SLIDE INSULATOR WITH THE COPPER TAPE INTO THE BACK OF THE PLUG HOUSING. FORM FREE END OF COPPER TAPE TIGHTLY ONTO THE SHIELD OF THE CABLE. MAKE CERTAIN NEITHER THE COPPER TAPE NOR THE CABLE SHIELDING TOUCH ANY OF THE TERMINALS.



SPECIFICATIONS

MECHANICAL:

Life:	400 insertion/ withdrawal cycles minimum
Vibration:	Mil-Std 202G method 201A
Hex Nut Torque:	10-12 in-lb max tightening torque
Coupling Locking Style:	Threaded Coupling Ring
Backshell Style:	Threaded

ELECTRICAL:

Voltage Rating:	600 V AC/DC
Current Rating:	13.0A - max (See page 107 for Electrical Current Rating Chart)
Conductor Size:	2 through 4 #16 contacts accepts 16 AWG 2 through 12 #20 contacts accepts 20 AWG

ENVIRONMENTAL:

Temperature Limits:	-40ºC to +85ºC (-40ºF to +185°F)
Operating Temperature:	Refer to website for detailed information
Moisture Resistance:	Mil-Std 202G method 106G
Insulation Resistance:	Mil-Std 202G method 302 condition B
Thermal Shock:	Mil-Std 202G method 107G
Salt Atmosphere :	Mil-Std 202G method 106F condition B
Ingress Protection :	IP66, IP67, IP68 per IEC60529 (Molded cable assemblies, consult factory)

MATERIAL:

Backshell & Strap:	Thermoplastic
Inserts:	Thermoplastic
Coupling Ring:	Nickel Plated Copper Alloy
Cable Housing	Nickel Plated Copper Alloy
Grommet/ Strain Relief:	Elastomer, black
O-Ring:	Elastomer, black
Contacts:	Copper Alloy, gold plated
Screws:	Stainless Steel

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Switchcraft:
SF3282-2*SG-5XX SF3282-3*SG-5XX SF3282-4*SG-5XX SF3282-5*SG-5XX SF3282-6*SG-5XX SF3282-7*SG-5XX SF3282-8*SG-5XX SF3282-9*SG-5XX SF4282-6APG-3ES