

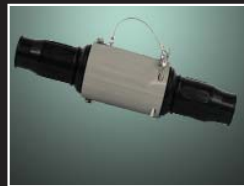


Cam-Lok[®] Roughneck[®] Connectors

COOPER Interconnect



Roughneck® Connectors



Cooper Interconnect's single-conductor Roughneck® High-Amperage Connectors are rugged and specifically designed for oil drilling applications.

Weatherproof and providing a high level of indestructibility, the Roughneck Connector offers the ultimate performance solution for safety and reliability challenges.

Roughneck® Connectors



Roughneck Plugs and Receptacles are designed to equal the cable performance of 1,135 amps continuous with intermittent surges up to 1,300 amps.

Built to survive harsh applications and be resistant to environmental conditions, Roughneck Plugs and Receptacles can be quickly connected and disconnected without tools.

The Industry Standard

Roughneck[®] Connectors

HIGH AMPERAGE CONNECTORS

FOR USE WITH SINGLE CONDUCTOR FOR 313-777 MCM CABLE, 1,000 VOLTS RATED UP TO 1,135 AMPERES.

Cooper Interconnect's single-conductor Roughneck[®] High-Amperage Connectors are rugged and specifically designed for oil drilling applications. Weatherproof and providing a high level of indestructibility, the Roughneck Connector offers the ultimate performance solution for safety and reliability challenges, that are not offered anywhere else.

For years, drilling contractors have been looking for a safe, easily connectable, high amperage connector that would withstand the rigors of standard drilling operations. Cooper Interconnect Cam-Lok Roughneck Plugs and Receptacles are designed to equal the cable performance at 1,135 amps continuous with intermittent surges up to 1,300 amps. They're built to take heavy abuse-resistant to wind, rain, mud, oil and sea water, yet they can be quickly connected and disconnected without any tools.

Specially made to handle a variety of drilling applications, the Roughneck can be quickly and safely connected to the switchgear or the AC or DC sides of the SCR package and carry power to mud pumps and all other traction motors.

Simple to Connect and Disconnect - No tools of any kind are required to connect or disconnect the connector to the receptacle. A latching device locks the halves together, eliminating the possibility of accidental disengagement, which can cause disruption of service and electrical shock hazards. The locking device is designed to permit insertion of a lockout/tagout device to provide additional security or the ability to padlock.

Safety - Roughneck Plugs and Receptacles feature totally shielded contacts. The synthetic rubber insulator extends past the ends of both male and female contacts for complete safety. Male contacts are equipped with Cooper Interconnect Cam-Lok's Safe Front Insulated Tip to minimize potential shock hazard. It provides the safest high amperage connector in the industry.

Positive Power Connection - Silver-plated, high conductivity copper alloy contacts provide minimum resistance, minimum heating.



Roughneck® Connectors



Colored Receptacle Housings and Insulators for Easy Identification

Eight colors are available to provide easy circuit identification when mating plugs with receptacles. Color coding helps prevent reverse phasing on AC circuits or cross polarization on DC circuits to assure correct rotation of motors while providing for operator safety. The insulators can be fastened to the cable by hose clamp or by field vulcanizing. Inexpensive portable vulcanizers are also available. See instruction bulletin for more information.

CABLE SIZE	AMPACITY RATING - 40°C AMBIENT	
	90° C†	125° C†
313 MCM	513 AMPS	636 AMPS
444 MCM	642 AMPS	896 AMPS
535 MCM	724 AMPS	898 AMPS
646 MCM	814 AMPS	1009 AMPS
777 MCM	916 AMPS	1135 AMPS

† Conductor temperature shall not exceed these ratings.



ROUGHNECK E1049 SERIES

FOR USE WITH SINGLE CONDUCTOR FOR 313-777 MCM CABLE, 1,000 VOLTS RATED UP TO 1,135 AMPERES.

RATINGS: 1,000 VOLTS UP TO 1,135 AMPERES CONTINUOUS

STANDARD MATERIALS
CABLE SIZE: 313 - 777 MCM

CONNECTOR BODY: SYNTHETIC RUBBER

RECEPTACLE HOUSING: EPOXY POWDER COATED ALUMINUM ALLOY

RECEPTACLE GASKET: RUBBER

HARDWARE: STAINLESS STEEL

CONTACT: SILVER PLATED COPPER

AGENCY APPROVALS:

 E73864

ENVIRONMENTAL RATING: NEMA 3

Roughneck[®] Connectors

ROUGHNECK E1049 SERIES

FOR USE WITH SINGLE CONDUCTOR FOR
313-777 MCM CABLE

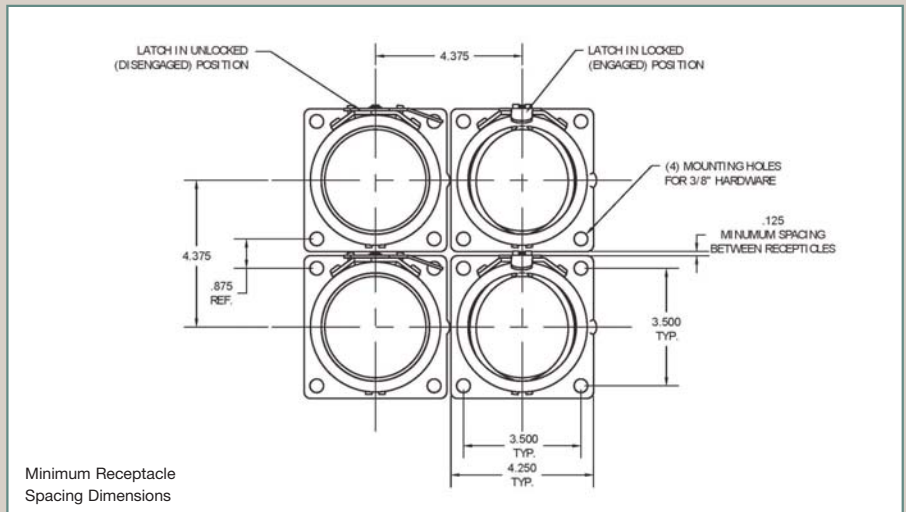
TECHNICAL SPECIFICATIONS

VOLTAGE RATING: 1,000 MAX.

AMPERAGE RATING: 1,135 MAX.

Featuring the Smallest Receptacle Footprint in the Industry

- New locking device features all stainless steel hardware.
- Device is “lockout/tagout” compatible.
- 360° mounting capability.
- Two additional mounting positions allow for vertical, horizontal or 45° angle.
- Epoxy powder shell coating provides superior corrosion resistance.
- New colored receptacles housings designed to provide easy circuit identification.
- Eight standard colors available.
- Receptacles are available in single and double-hole.
- Newly designed dust cover can be secured to the receptacle housing.



Roughneck® Connectors



SINGLE HOLE BUS BAR			
COLOR	FEMALE COMPLETE RECEPTACLE ASSEMBLY	SHELL ASSEMBLY	FEMALE CONTACT ASSEMBLY
Black	E1049-1825X-BK	3326695-1	A201108-1
Yellow	E1049-1826X-Y	3326695-2	A201108-2
Red	E1049-1827X-R	3326695-3	A201108-3
Orange	E1049-1828X-OR	3326695-4	A201108-4
Green	E1049-1829X-G	3326695-5	A201108-5
White	E1049-1830X-W	3326695-6	A201108-6
Blue	E1049-1831-BL	3326695-7	A201108-7
Brown	E1049-1832X-BR	3326695-8	A201108-8

SINGLE HOLE BUS BAR			
COLOR	MALE COMPLETE RECEPTACLE ASSEMBLY	SHELL ASSEMBLY	MALE CONTACT ASSEMBLY
Black	E1049-1800X-BK	3326695-1	A201099-1
Yellow	E1049-1801X-Y	3326695-2	A201099-2
Red	E1049-1802X-R	3326695-3	A201099-3
Orange	E1049-1803X-OR	3326695-4	A201099-4
Green	E1049-1804-G	3326695-5	A201099-5
White	E1049-1805X-W	3326695-6	A201099-6
Blue	E1049-1806X-BL	3326695-7	A201099-7
Brown	E1049-1807X-BR	3326695-8	A201099-8

Available in aluminum. Consult factory for details.
 Receptacle assembly part numbers include the insulator, receptacle housing, gasket and dust cover.
 Dust cover receptacle male or female part number A201113-5.

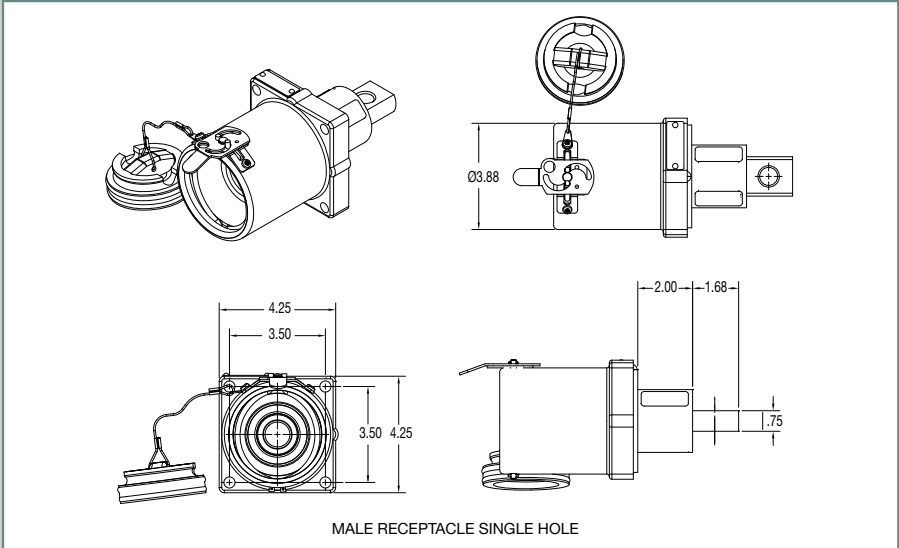
ROUGHNECK E1049 SERIES

FOR USE WITH SINGLE CONDUCTOR FOR 313-777 MCM CABLE

TECHNICAL SPECIFICATIONS

VOLTAGE RATING: 1,000 MAX.

AMPERAGE RATING: 1,135 MAX.



NEW RECEPTACLE HOUSING ALLOWS FOR VERTICAL, HORIZONTAL OR 45° ANGLE

Roughneck[®] Connectors

ROUGHNECK E1049 SERIES

FOR USE WITH SINGLE CONDUCTOR FOR
313-777 MCM CABLE

TECHNICAL SPECIFICATIONS

VOLTAGE RATING: 1,000 MAX.

AMPERAGE RATING: 1,135 MAX.



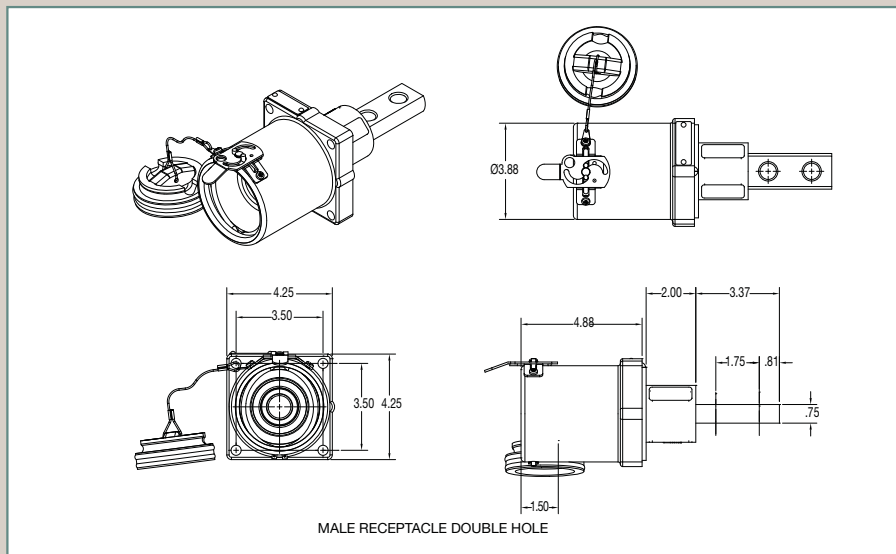
DOUBLE HOLE BUS BAR			
*COLOR	FEMALE COMPLETE RECEPTACLE ASSEMBLY	SHELL ASSEMBLY	FEMALE CONTACT ASSEMBLY
Black	E1049-1833X-BK	3326695-1	A201108-9
Yellow	E1049-1834X-Y	3326695-2	A201108-10
Red	E1049-1835X-R	3326695-3	A201108-11
Orange	E1049-1836X-OR	3326695-4	A201108-12
Green	E1049-1837X-G	3326695-5	A201108-13
White	E1049-1838X-W	3326695-6	A201108-14
Blue	E1049-1839X-BL	3326695-7	A201108-15
Brown	E1049-1840X-BR	3326695-8	A201108-16

DOUBLE HOLE BUS BAR			
*COLOR	MALE COMPLETE RECEPTACLE ASSEMBLY	SHELL ASSEMBLY	MALE CONTACT ASSEMBLY
Black	E1049-1808X-BK	3326695-1	A201099-9
Yellow	E1049-1809X-Y	3326695-2	A201099-10
Red	E1049-1810X-R	3326695-3	A201099-11
Orange	E1049-1811X-OR	3326695-4	A201099-12
Green	E1049-1812X-G	3326695-5	A201099-13
White	E1049-1813X-W	3326695-6	A201099-14
Blue	E1049-1814X-BL	3326695-7	A201099-15
Brown	E1049-1815X-BR	3326695-8	A201099-16

Available in aluminum. Consult factory for details.

Receptacle assembly part numbers include the insulator, receptacle housing, gasket and dust cover.

Dust cover receptacle male or female part number A201113-5.



Roughneck® Connectors



MALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE MALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 313 MCM	Black	E1049-31	A201106-1	A201107-4
	Yellow	E1049-32	A201106-2	
	Red	E1049-33	A201106-3	
	Orange	E1049-34	A201106-4	
	Green	E1049-35	A201106-5	
	White	E1049-36	A201106-6	
	Blue	E1049-37	A201106-7	
	Brown	E1049-38	A201106-8	

*Complete male and complete female plugs include dust cap.

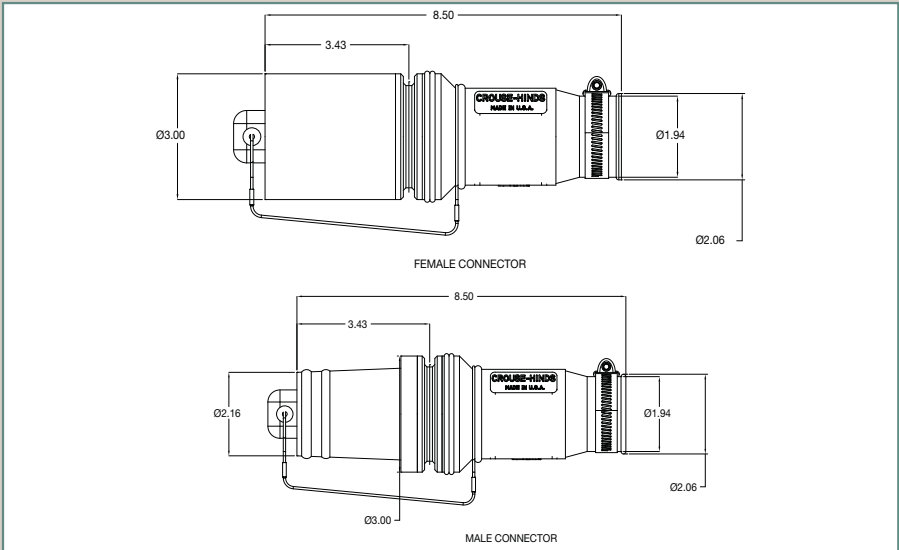
FEMALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE FEMALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 313 MCM	Black	E1049-80	A201100-1	A201103-4
	Yellow	E1049-81	A201100-2	
	Red	E1049-82	A201100-3	
	Orange	E1049-83	A201100-4	
	Green	E1049-84	A201100-5	
	White	E1049-85	A201100-6	
	Blue	E1049-86	A201100-7	
	Brown	E1049-87	A201100-8	

*Complete male and complete female plugs include dust cap.

ROUGHNECK PLUGS E1049 SERIES

FOR 313-777 MCM CABLE, 1,000 VOLTS.

NOTE: MALE PLUGS AND RECEPTACLES SHOULD BE USED ON THE POWER SOURCE SIDE. FEMALE PLUG AND RECEPTACLES SHOULD BE USED ON THE LOAD DISTRIBUTION SIDE. DO NOT DISCONNECT UNDER LOAD.



Roughneck[®] Connectors

ROUGHNECK PLUGS E1049 SERIES

FOR 313- 444MCM CABLE, 1,000 VOLTS.

NOTE: MALE PLUGS AND RECEPTACLES SHOULD BE USED ON THE POWER SOURCE SIDE. FEMALE PLUG AND RECEPTACLES SHOULD BE USED ON THE LOAD DISTRIBUTION SIDE. DO NOT DISCONNECT UNDER LOAD.

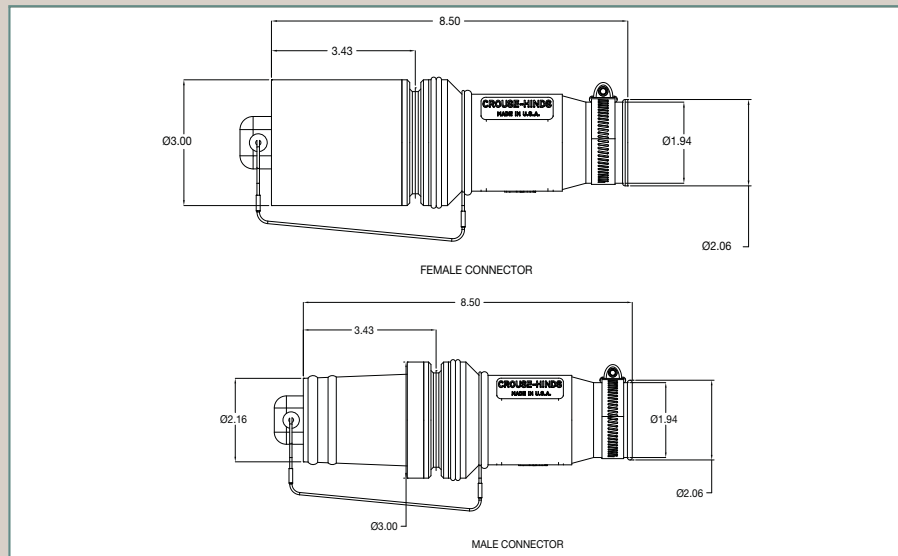


MALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE MALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 444 MCM	Black	E1049-201	A201106-1	
	Yellow	E1049-202	A201106-2	
	Red	E1049-203	A201106-3	
	Orange	E1049-204	A201106-4	
	Green	E1049-205	A201106-5	A201107-8
	White	E1049-206	A201106-6	
	Blue	E1049-207	A201106-7	
	Brown	E1049-208	A201106-8	

*Complete male and complete female plugs include dust cap.

FEMALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE FEMALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 444 MCM	Black	E1049-250	A201100-1	
	Yellow	E1049-251	A201100-2	
	Red	E1049-252	A201100-3	
	Orange	E1049-253	A201100-4	
	Green	E1049-254	A201100-5	A201103-8
	White	E1049-255	A201100-6	
	Blue	E1049-256	A201100-7	
	Brown	E1049-257	A201100-8	

*Complete male and complete female plugs include dust cap.



Roughneck® Connectors



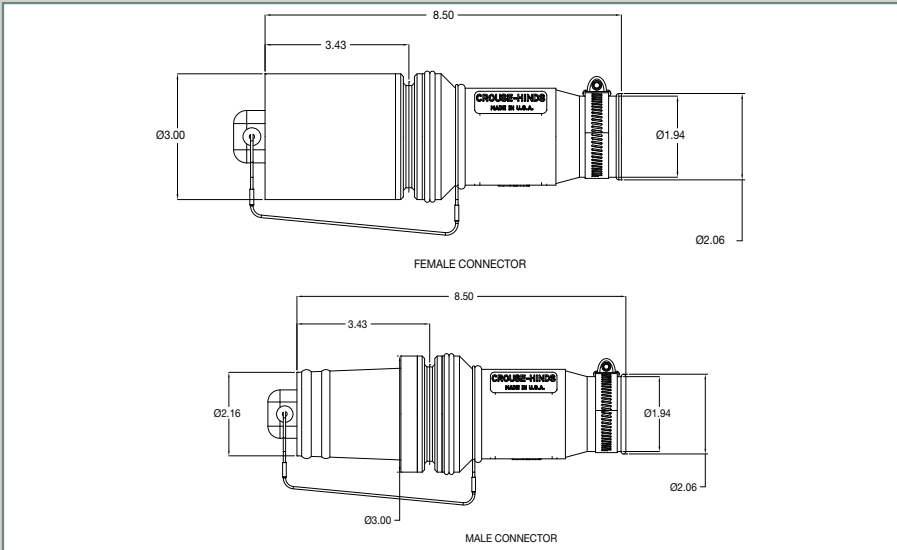
MALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE MALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 535 MCM	Black	E1049-1	A201106-1	A201107-1
	Yellow	E1049-2	A201106-2	
	Red	E1049-3	A201106-3	
	Orange	E1049-4	A201106-4	
	Green	E1049-5	A201106-5	
	White	E1049-6	A201106-6	
	Blue	E1049-7	A201106-7	
	Brown	E1049-8	A201106-8	

FEMALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE FEMALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 535 MCM	Black	E1049-50	A201100-1	A201103-1
	Yellow	E1049-51	A201100-2	
	Red	E1049-52	A201100-3	
	Orange	E1049-53	A201100-4	
	Green	E1049-54	A201100-5	
	White	E1049-55	A201100-6	
	Blue	E1049-56	A201100-7	
	Brown	E1049-57	A201100-8	

ROUGHNECK PLUGS E1049 SERIES

FOR 313-535 MCM CABLE, 1,000 VOLTS.

NOTE: MALE PLUGS AND RECEPTACLES SHOULD BE USED ON THE POWER SOURCE SIDE. FEMALE PLUG AND RECEPTACLES SHOULD BE USED ON THE LOAD DISTRIBUTION SIDE. DO NOT DISCONNECT UNDER LOAD.



*COMPLETE MALE AND COMPLETE FEMALE PLUGS INCLUDE DUST CAP.

Roughneck[®] Connectors

ROUGHNECK PLUGS E1049 SERIES

FOR 313-646 MCM CABLE, 1,000 VOLTS.

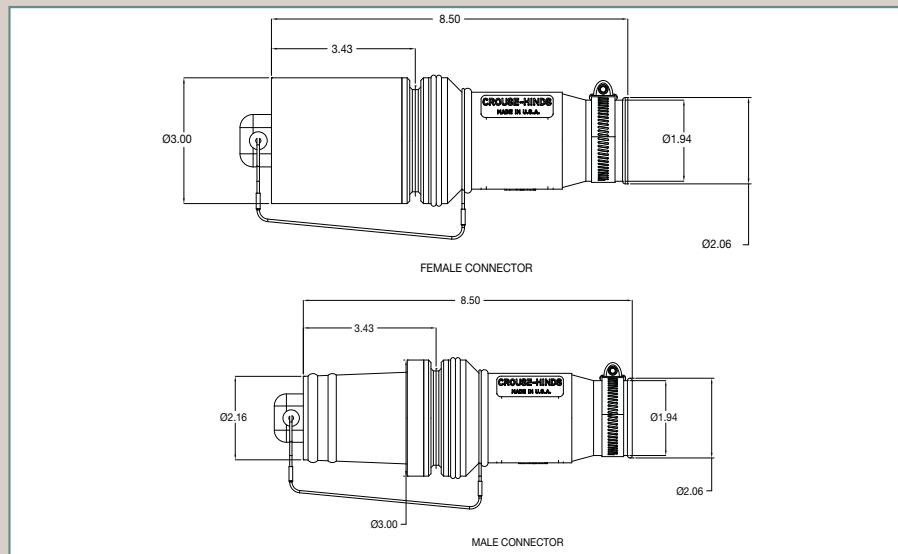
NOTE: MALE PLUGS AND RECEPTACLES SHOULD BE USED ON THE POWER SOURCE SIDE. FEMALE PLUG AND RECEPTACLES SHOULD BE USED ON THE LOAD DISTRIBUTION SIDE. DO NOT DISCONNECT UNDER LOAD.



*COMPLETE MALE AND COMPLETE FEMALE PLUGS INCLUDE DUST CAP.

MALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE MALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 646 MCM	Black	E1049-11	A201106-1	
	Yellow	E1049-12	A201106-2	
	Red	E1049-13	A201106-3	
	Orange	E1049-14	A201106-4	
	Green	E1049-15	A201106-5	A201107-2
	White	E1049-16	A201106-6	
	Blue	E1049-17	A201106-7	
	Brown	E1049-18	A201106-8	

FEMALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE FEMALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 646 MCM	Black	E1049-60	A201100-1	
	Yellow	E1049-61	A201100-2	
	Red	E1049-62	A201100-3	
	Orange	E1049-63	A201100-4	
	Green	E1049-64	A201100-5	A201103-2
	White	E1049-65	A201100-6	
	Blue	E1049-66	A201100-7	
	Brown	E1049-67	A201100-8	



Roughneck® Connectors



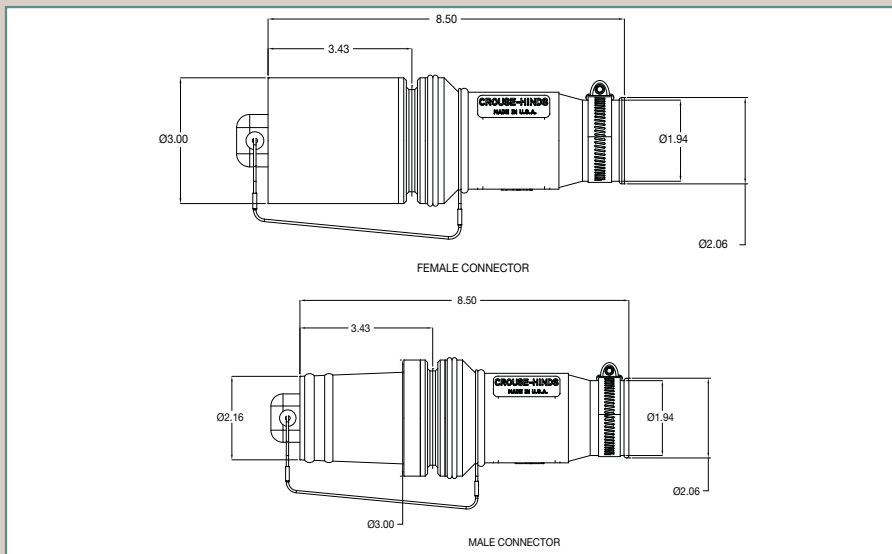
MALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE MALE CONNECTOR PART NO.*	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 777 MCM	Black	A201106-1	A201106-1	A201107-3
	Yellow	A201106-2	A201106-2	
	Red	A201106-3	A201106-3	
	Orange	A201106-4	A201106-4	
	Green	A201106-5	A201106-5	
	White	A201106-6	A201106-6	
	Blue	A201106-7	A201106-7	
	Brown	A201106-8	A201106-8	

FEMALE PLUG				
TYPE OF CONNECTION AND WIRE SIZE	COLOR	COMPLETE FEMALE CONNECTOR PART NO. *	INSULATOR ONLY PART NO.	CONTACT ONLY PART NO.
HEXAGON CRIMP OR SOLDER FOR 777 MCM	Black	E1049-70	A201100-1	A201103-3
	Yellow	E1049-71	A201100-2	
	Red	E1049-72	A201100-3	
	Orange	E1049-73	A201100-4	
	Green	E1049-74	A201100-5	
	White	E1049-75	A201100-6	
	Blue	E1049-76	A201100-7	
	Brown	E1049-77	A201100-8	

ROUGHNECK PLUGS E1049 SERIES

FOR 313-777 MCM CABLE, 1,000 VOLTS.

NOTE: MALE PLUGS AND RECEPTACLES SHOULD BE USED ON THE POWER SOURCE SIDE. FEMALE PLUG AND RECEPTACLES SHOULD BE USED ON THE LOAD DISTRIBUTION SIDE. DO NOT DISCONNECT UNDER LOAD.



*COMPLETE MALE AND COMPLETE FEMALE PLUGS INCLUDE DUST CAP.

Roughneck[®] Connectors

ROUGHNECK PLUGS AND RECEPTACLES

AC or DC output side of switchgear or SCR panel.



Complete Male Receptacle



Complete Female Plug

Used when making in-line, cable-to-cable connections.



Complete Male Plug (With Female Coupler Installed)



Complete Female Plug

Distributes primary AC power to switchgear, transformers or SCR panels.



Complete Male Plug



Complete Female Receptacle

Roughneck® Connectors



Couplers, Receptacles and Accessories

Coupler required when making in-line cable connections. Secures male to female when clevis pin is inserted. (Includes clevis pin, padlock bracket and mounting bolts).

REPAIR AND ACCESSORY ITEMS			
PART NO.	DESCRIPTION	PART NO.	DESCRIPTION
A101058-1	Clevis Pin for Receptacle	201115	Gasket for Casting
A101058-2	Clevis Pin for Coupler	A201120-1	Lockout Kit for Padlocking Receptacle
A201093-1	Casting for Receptacle Male or Female	A201096-1	Coupler for Mating Male to Female Plug (should not be mounted on Male)
A201113-1	Dust Cover Receptacle Male or Female		
A201113-2	Dust Cover for Male Plug, Black	319735-1	Neoprene Vulcanizing Tape
A201114-2	Dust Cover for Female Plug, Black		
		100312-2	Adhesive, 8 oz. Can



A201096-1 Shown Installed

**Cam-Lok® Roughneck® Connectors are manufactured at
Cooper Interconnect
4758 Washington Street
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