

MIL-E-QUAL® EQUIVALENT TO MIL-C-5015



Cable Pin/Socket



Box Receptacle



Cable Pin/Socket



Box Receptacle



Cable Cap



Receptacle Cap

Molded Cable Assemblies (See pages 3 & 33)

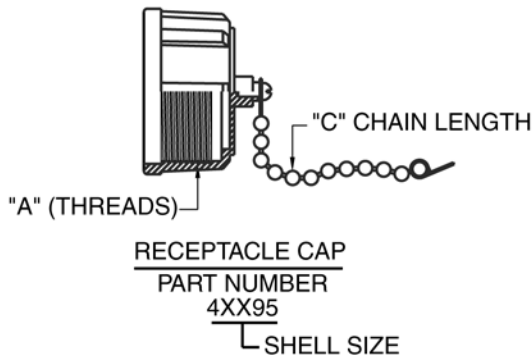
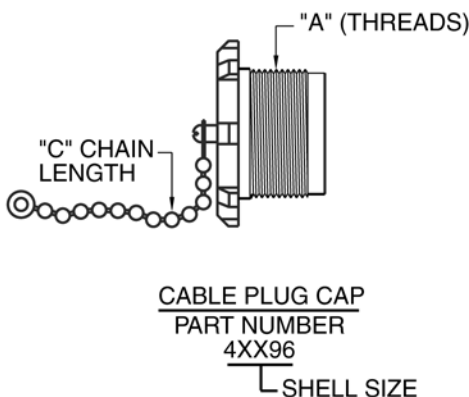
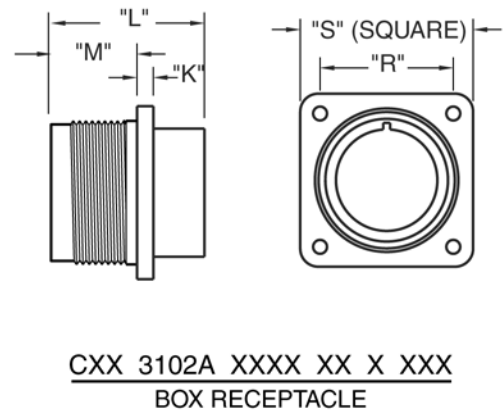
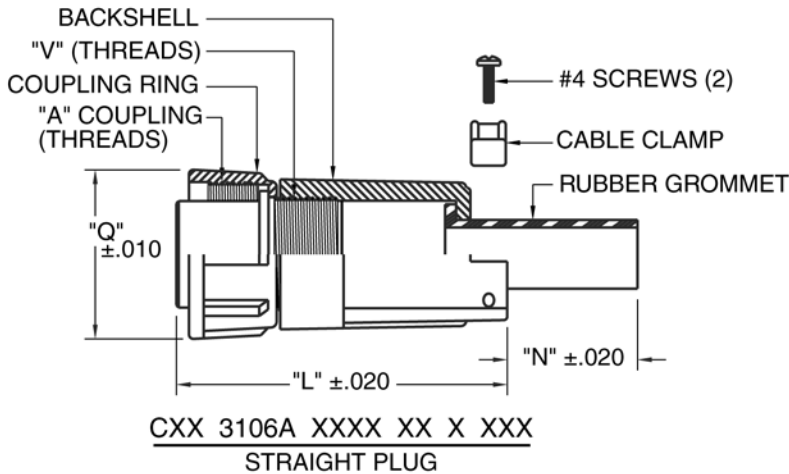


Cable Pin/Socket

MIL-E-QUAL® EQUIVALENT TO MIL-C-5015

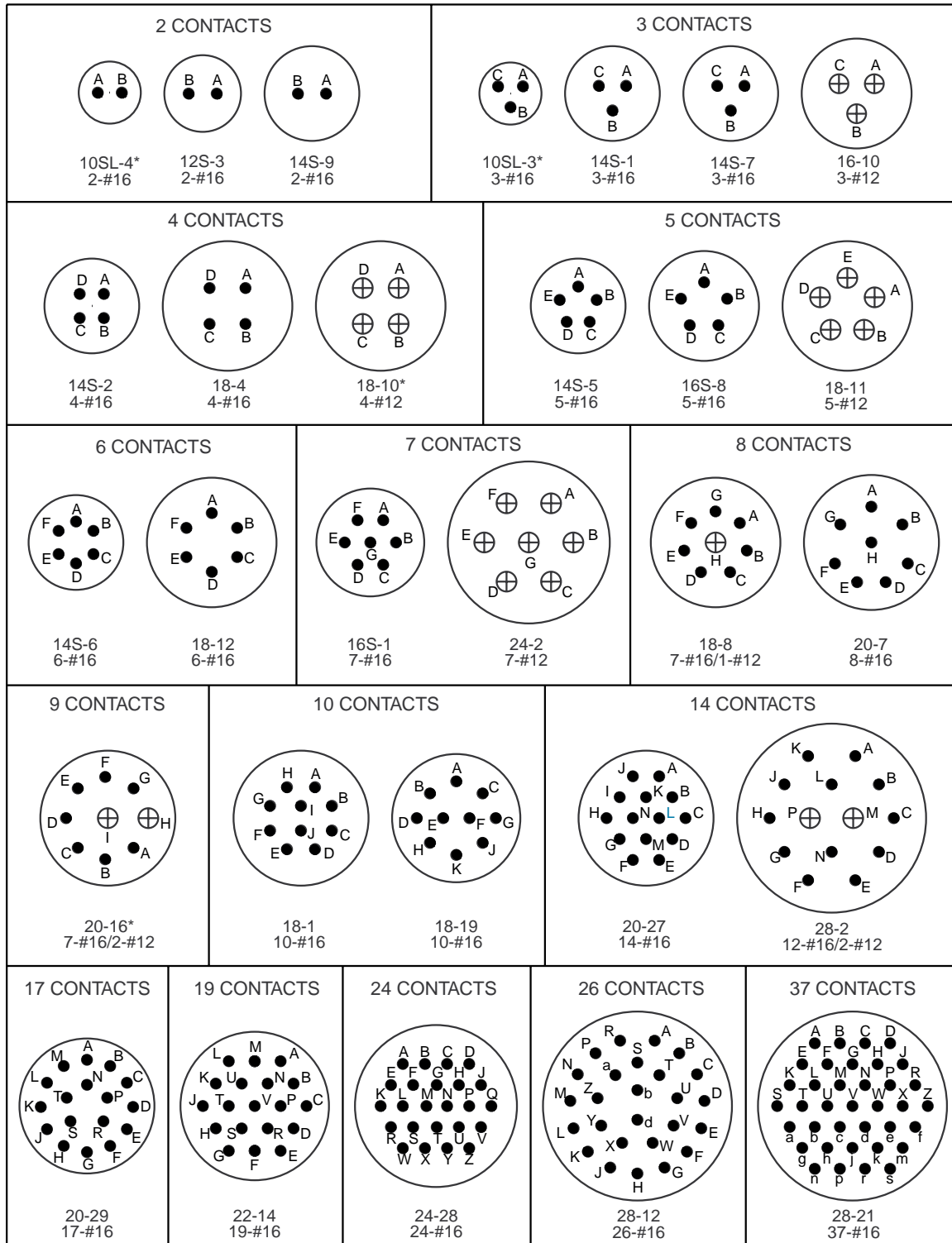
Connector Size	L	N	Q	V Fitting Threads
	INCH MM	INCH MM	INCH MM	
10SL	1.800 45.7	1.200 30.5	.900 22.9	1/2-20
12S	1.900 48.3	1.200 30.5	1.000 25.4	5/8-24
14S	1.900 48.3	1.300 33	1.200 30.5	3/4-20
16S	2.200 56.	1.425 36.2	1.250 31.8	7/8-20
16	2.400 61.	1.425 36.2	1.250 31.8	7/8-20
18	2.570 65.3	1.425 36.2	1.420 36.1	1-20
20	2.450 62.2	1.425 36.2	1.450 36.8	1-1/8-18
22	2.450 62.2	1.425 36.2	1.600 40.6	1-1/4-18
24	2.570 65.3	1.425 36.2	1.725 43.8	1-3/8-18
28	2.570 65.3	1.425 36.2	1.975 50.2	1-5/8-18

Connector Size	A Coupling Threads	K	L	M	R	S	C	Z
		Inch MM	Inch MM	Inch MM	Inch MM	Inch MM	Inch MM	Inch MM
10SL	5/8-24	.080 2	.940 23.9	9/16 14.3	23/32 18.3	1 25.4	3.5 88.9	.635 16.1
12SL	3/4-20	.080 2	1.030 26.2	9/16 14.3	13/16 20.6	1-3/32 27.8	3.5 88.9	.760 19.3
14S	7/8-20	.080 2	1.143 29	9/16 14.3	29/32 23	1-3/16 30.2	3.5 88.9	.885 22.5
16S	1-20	.142 3.6	1.180 30	9/16 14.3	31/32 24.6	1-9/32 32.5	3.5 88.9	1.010 25.7
16	1-20	.142 3.6	1.350 34.3	3/4 19	31/32 24.6	1-9/32 32.5	3.5 88.9	1.010 25.7
18	1-1/8-18	.142 3.6	1.330 33.8	3/4 19	1-1/16 27	1-3/8 34.9	5.0 127.0	1.135 28.8
20	1-1/4-18	.142 3.6	1.330 33.8	3/4 19	1-5/32 29.4	1-1/2 38.1	5.0 127.0	1.260 32.0
22	1-3/8-18	.142 3.6	1.220 31.0	3/4 19	1-1/4 31.8	1-5/8 41.3	5.0 127.0	1.385 35.2
24	1-1/2-18	.142 3.6	1.220 31.0	13/16 20.6	1-3/8 34.9	1-3/4 44.5	6.0 152.4	1.510 38.4
28	1-3/4-18	.142 3.6	1.220 31.0	13/16 20.6	1-9/16 39.7	2 50.8	6.0 152.4	1.760 44.7



MIL-E-QUAL® EQUIVALENT TO MIL-C-5015

Contact Arrangements



Contact Arrangements shown are mating view of pin insert (socket opposite).

Unless otherwise specified, arrangements are per MIL-STD-1651A. for alternate key positions, consult factory.

*Available in connector types: cable end socket, panel mount pin styles only.

MIL-E-QUAL® EQUIVALENT TO MIL-C-5015

Part Number to Order

CX X 310XA XXXX XX X XXX

CONXALL

Molded Equivalent to MIL-C-5015

Contact Style

S - Solder
C - Crimp

Shell Type

(See Note 1)

3101A Cable Receptacle (in-line)
(See Note 3)

3102A Box Receptacle

3106A Straight Plug (See Note 2)

Note 1 - All plugs and receptacles include crimp or solder contacts specified.

Note 2 - Straight Plugs include back shell assembly with cable clamp and bushing.

Note 3 - For overmolded cable construction only. Consult factory for availability.

Deviations

-300 Weathertight
Option adds:
"O" Ring for plug (3106A)
Rubber Gasket for receptacle (3102A)

-010 Receptacle with (4) mounting hole reinforcement bosses. Consult factory for availability.

-310 Same as -010 except with rubber gasket.

Contacts

P - Pin
S - Socket

Insert Number/Arrangement

All inserts are integrally molded with connector shells for one piece construction. Contact factory for alternative W, X, Y or Z insert positions.

Bushing Sizes Provided

Plug Shell Size	Max. Cable Dia.
10SL, 12S	1/4"
14S	5/16"
16S, 16	7/16"
18	9/16"
20, 22	5/8"
24, 28	3/4"

Shell/Insert Sizes

10SL-4	16S-1	18-19
10SL-3	16S-8	20-7
12S - 3	16 - 10	20-16
14S - 1	18 - 1	20-27
14S - 2	18 - 4	20-29
14S - 5	18 - 8	22-14
14S - 6	18 - 10	24-2
14S - 7	18 - 11	24-28
14S - 9	18 - 12	28-2
		28-12
		28-21

Consult factory for your custom design assemblies and connectors. (See pages 3 & 33)

MIL-E-QUAL® EQUIVALENT TO MIL-C-5015

Specifications

Typical Specifications

Manufacturers Identifications	MIL-E-QUAL®
Description	Field Installable Connector & Custom Cable Assemblies
Rating	3.4 thru 23.0A, 600V
Conductor Size	12 thru 20 AWG
Configuration	2 thru 37 Contacts per Mil - C-5015
Certification	UL Recognized File #E150822 - 250V CSA Certified File #LR89277 -7-500V

Mechanical Specifications

Cable Pin/Socket

Mechanical Backshell (Threaded)	Nylon, UL Recognized, Black with UV Inhibitor
Strap	Nylon, UL Recognized, Black with UV Inhibitor
Screws	Cadmium Plated
Grommet	Santoprene Rubber, Black
Coupling Ring	Nylon, UL Recognized, Black with UV Inhibitor
Contacts	Brass, Standard Silver Plated, Gold Plated Optional
Connector Body	Nylon, UL Recognized, Black with UV Inhibitor

Optional

Connector Cap	Nylon, UL Recognized, Black with UV Inhibitor (4XX96)
O-Ring	Nitrile Rubber, Black

Different Keyways Available

Gold Contacts	Brass, Gold over Nickel
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Box Receptacle

Contacts	Brass, Standard Silver Plated, Gold Plated Optional
Receptacle Body	Nylon, UL Recognized, Black with UV Inhibitor

Optional

Receptacle Cap	Nylon, UL Recognized, Black with UV Inhibitor (4XX95)
Gasket	Nitrile Rubber, Black
Gold Contacts	Brass, Gold over Nickel

Extended Bosses

Different Keyways Available

Electrical Specifications

Voltage	500 V
Current	See Electrical Current Rating Chart (Page 34)

Environmental Specifications

Temperature Rating	-55°C to +85°C (-67°F to +185°F)
Corrosion	48 Hr salt spray contacts
Durability	300 mate/unmate cycles minimum
Weatheright	Consult factory with specific application

Molded Cable Assemblies

Watertight	(See Pages 3 & 33) NEMA 6P, 13: IEC IP67
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MIL-E-QUAL® MOLDED CABLE ASSEMBLIES EQUIVALENT TO MIL-C-5015

Part Number to Order

CX X 310XA XXXX XX X 1 XX XX

CONXALL
Molded Equivalent
to MIL-C-5015

Contact Style
S - Solder
C - Crimp

Shell Type
(See Note 1)
3101A Cable Receptacle (in-line)
(See Note 3)
3102A Box Receptacle*
3106A Straight Plug (See Note 2)

Note 1 - All plugs and receptacles include crimp contacts.

Note 2 - For overmolded cable construction only. Consult factory for availability.

Length in Inches

Length in Feet
(Consult factory for
100 ft. and over)

Indicates Cable
Assembly

Contacts
P - Pin
S - Socket

Insert Number/Arrangement

All inserts are integrally molded with connector shells for one piece construction. Contact factory for alternative W, X, Y or Z insert positions.

Bushing Sizes Provided

Plug Shell Size	Max. Cable Dia.
10SL, 12S	1/4"
14S	5/16"
16S, 16	7/16"
18	9/16"
20, 22	5/8"
24, 28	3/4"

Shell/Insert Sizes

10SL-4	16S-1	20-7
10SL-3	16S-8	20-16
12S - 3	16 - 10	20-27
14S - 1	18 - 1	20-29
14S - 2	18 - 4	22-14
14S - 5	18 - 8	24-2
14S - 6	18 - 10	24-28
14S - 7	18 - 11	28-2
14S - 9	18 - 12	28-12
	18 - 19	28-21

*Panel mount supplied with: hook-up wire and with an optional epoxy seal. Consult factory for your custom design assemblies and connectors.

Conxall offers the ability to manufacture molded cable assemblies utilizing the "MIL-E-QUAL® (MIL-C-5015)" connector line. The part number system shown above is offering a standard single ended cable assembly using a PVC cable with a blunt cut end. The molding process joins the connector and cable by utilizing an injection molded thermoplastic boot. This boot completely encapsulates all internal wires and contacts to prevent any movement and ensures environmental integrity. This process also eliminates the risk of accidental cable pull-out or rotational torque at the contact terminations. Consult factory for custom design cable assembly, connectors, and optional material.

Note: Due to manufacturing processes, molded cables may be subject to minimum quantity purchase. Cable assemblies are built to order.

MIL-E-QUAL® ELECTRICAL CURRENT RATING CHART FOR CONNECTORS & CABLE ASSEMBLIES

Contact Size	Conductor Size - AWG	Number of Conductors	Current Rating	
#12	#12	1 through 3	23.0A	
		4 through 6	17.0A	
		7 through 9	13.0A	
#12	#14	1 through 3	17.0A	
		4 through 6	12.75A	
		7 through 9	11.0A	
#12	#16	1 through 3	13.0A	
		4 through 6	9.75A	
		7 through 9	8.45A	
#16	#16	1 through 3	13.0A	
		4 through 6	9.75A	
		7 through 10	8.45A	
		10 through 20	5.85A	
		21 through 30	4.55A	
		31 and up	3.9A	
	#18	#18	1 through 3	10.0A
			4 through 6	7.5A
			7 through 9	6.5A
#18	#18	10 through 20	4.5A	
		21 through 30	3.5A	
		31 and up	3.0A	
#20	#20	1 through 3	7.5A	
		4 through 6	5.6A	
		7 through 9	4.8A	
		10 through 20	3.4A	
		21 through 30	2.62A	
		31 and up	2.3A	

TOOLING

Contact Insertion & Removal Tools



356-XXX Bits



356-1 Handle

Manual Crimp Tool
(Multi-contact)



Manual Crimp Tool
(Single Purpose)

