Amphenol Star-line EX® Series Connectors

HARD ANODIC COATING ALLOWS FOR HEAT RESISTANCE UP TO 750°F (399°C)

Amphenol Explosion-proof Connectors ATEX certified for Zone 1-IIc hazardous environment, Cenelec IP68-8 rated, and IECex certified (IECex 60079). With a broad range of reversible inserts; solder, crimp and pressure terminals; and flexible cable options, Star-Line EX will meet application demands in petrochemical refineries, land and offshore drilling systems. RoHS compliant products available.

FEATURES

ATEX CERTIFIED
For Zone 1-IIc hazardous environment. For certificate, contact factory.

IECEX CERTIFIED
For certificate, contact factory.

CENELEC IP68 RATED
Cable connectors listed under Ex d IIc T6. Panel mount receptacles listed under Ex de IIc T6.

HARD ANODIC COATING
All machined aluminum parts finished with a hard, scratch-resistant coating per MIL-A-8625, Type III. Dielectric strength 1800 volts. Heat resistance of 750°F.

REVERSIBLE INSERTS
A full range of contact inserts for power, signal and mixed applications are available. All are interchangeable and reversible to suit specific needs.

EASILY ACCESSIBLE WIRE TERMINALS
Conductors are readily terminated to contacts. Cable housings are slipped over conductors or leads after terminating. Cumbersome handling and seating of inserts with conductors attached is eliminated.

HIGH TENSILE STRENGTH ALUMINUM
Bar Stock Components precision machined. Points of impact designed for extra strength.

CABLE OPTIONS
Starline EX Series can be terminated onto unarmored or armored and sheathed cables built to IEEE-45 / UL1309, IEC, BS, DIN and JIC standards. Flexible cables like SOOW-A, W, G-GC and DLO constructions can also be used with this Series.

EX CABLE GLANDS
Wide variety of glands are available for Star-Line EX connectors.

INSERT VARIETY
1 to 143 contacts. High amperage up to 1135 amps at 1000V / AC or DC. Contacts are high quality copper with silver plating. (Gold plating available as an option) Composite inserts for power, control and instrumentation service available.

RADSOK® HIGH AMPERAGE CONTACTS
Special arrangements are available with RADSOK high amperage contacts. Standard Star-line EX inserts are not interchangeable with new RADSOK contact insert arrangements.

ROHS COMPLIANT PRODUCT AVAILABLE

TECHNICAL SPECIFICATIONS

MATERIALS AND FINISHES

Shell	Aluminium Alloy or Stainless Steel
Shell Plating	Hard Anodic
Contacts	Copper Alloy
Contact Platings	Silver or Gold Plated
Seals	Buna Rubber

ELECTRICAL DATA

Wire Range Sizes	18 to 777MCM

Current Rating

CONTACT SIZE	MAX. CURRENT RATING PER CONTACT AMPS
18	3
16	16
12	30
10	40
8	50
4	90
1/0	155
4/0	225
313MCM	325
350MCM	325
373MCM	Contact us
444MCM	Contact us
500MCM	750
535MCM	Contact us
646MCM	940
777MCM	1,135

MECHANICAL

Operating Temperature	-67°F to +257°F (-55°C to +125°C)

Insulation Strip Length

CONTACT SIZE	STRIP LENGTH - SOLDER		STRIP LENGTH - CRIMP	
	INCHES	MM	INCHES	MM
18	0.284	7.2	0.453	11.5
16	0.284	7.2	0.575	14.6
12	0.343	8.7	0.611	15.5
10	0.469	11.9	0.674	17.1
8	0.595	15.1	0.827	21.0
4	0.658	16.7	0.906	23.0
1/0	0.721	18.3	1.221	31.0
4/0	0.721	18.3	1.221	31.0
313MCM	0.843	21.4	1.319	33.5
350MCM	0.843	21.4	1.319	33.5
373MCM	0.843	21.4	1.319	33.5
444MCM	1.969	50.0	1.969	50.0
500MCM	1.969	50.0	1.969	50.0
535MCM	1.969	50.0	1.969	50.0
646-777MCM	1.969	50.0	1.969	50.0

Mating Life	500 cycles
Salt Spray	300 days
Vibration	10g
Shock	60g
Sealed	IP68
Contact Type	Solder, Crimp, Power, and Signal
Number of Circuits	1 to 143
Polarization	Keyway with optional insert orientation
Approvals	CSA, ATEX, and IECEX

CREATE YOUR PART NUMBER

	1	2	3	4	5	6	7	8	9
EX	S-	13-3	-C	-20-332	P	N	K	-01	-BS
SERIES PREFIX	SHELL MATERIAL	SHELL & HARDWARE TYPE	EEX D GLAND/ CABLE GRIP SIZE	LAYOUT	CONTACT TYPE	CONTACT TERMINATION	CONTACT PLATING	KEYING	CABLE TYPE

STEP 1: SELECT SHELL MATERIAL

Blank = Aluminum **S** = Stainless Steel

STEP 2: SELECT SHELL & HARDWARE TYPE

RECEPTACLES ← Mates with → **PLUGS**

15-2
In-Line Receptacle with Mechanical Clamp

15-3
In-Line Receptacle with EEx d Gland

13-2
Plug with Mechanical Clamp

13-3
Plug with EEx d Gland

15-4
In-Line Receptacle with Basketweave Cable Grip

17-1
Panel Mount Receptacle

13-4
Plug with Basketweave Cable Grip

17-2
Fixed In-Line Receptacle with Mechanical Clamp

17-3
Fixed In-Line Receptacle with EEx d Gland

17-4
Fixed In-Line Receptacle with Basketweave Cable Grip

STEP 3: SELECT EEX D GLAND / CORD GRIP SIZE

For Shell and hardware styles 13-3, 15-3 or 17-3

SHELL SIZE	ENTRY THREAD	GLAND SIZES AVAILABLE												BLANK - NO GLAND FITTED
		A1 16	A2 20S	A 20	B 25	C 32	C2 40	D 50S	D2 50	E 63S	E2 63	F 75S	F2 75	
12	M25	x	x	x	x									x
16	M40			x	x	x	x							x
20	M50				x	x	x	x	x					x
24	M63					x	x	x	x	x	x			x
28	M75							x	x	x	x	x	x	x

SHELL SIZE	GLAND CODE THREAD	UNARMORED CABLE OD				ARMORED CABLE											
						INNER SHEATH DIAMETER				STANDARD OD ("-BS")				REDUCED BORE OD ("-BSR")			
		MIN		MAX		MIN		MAX		MIN		MAX		MIN		MAX	
		IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM	IN	MM
12	A1	0.1575	4.0	0.3307	8.4	0.1339	3.4	0.3307	8.4	0.3543	9.0	0.5315	13.5	0.2638	6.7	0.4055	10.3
	A2	0.2835	7.2	0.4606	11.7	0.2835	7.2	0.4606	11.7	0.4528	11.5	0.6299	16.0	0.3701	9.4	0.4921	12.5
12 & 16	A	0.3780	9.6	0.5512	14.0	0.3701	9.4	0.5512	14.0	0.6102	15.5	0.8307	21.1	0.4724	12.0	0.6929	17.6
12, 16, & 20	B	0.5315	13.5	0.7874	20.0	0.5315	13.5	0.7874	20.0	0.7992	20.3	1.0790	27.4	0.6614	16.8	0.9409	23.9
16, 20, & 24	C	0.7677	19.5	1.0350	26.3	0.7677	19.5	1.0350	26.3	1.0510	26.7	1.3390	34.0	0.9134	23.2	1.2010	30.5
	C2	0.9055	23.0	1.2680	32.2	0.9055	23.0	1.2680	32.2	1.2990	33.0	1.5980	40.6	1.1260	28.6	1.4250	36.2
20, 24, & 28	D	1.1100	28.2	1.5040	38.2	1.1060	28.1	1.5040	38.2	1.5510	39.4	1.8390	46.7	1.3700	34.8	1.6690	42.4
	D2	1.3070	33.2	1.7360	44.1	1.3030	33.1	1.7360	44.1	1.7990	45.7	2.0940	53.2	1.6180	41.1	1.9090	48.5
24 & 28	E	1.5470	39.3	1.9720	50.1	1.5430	39.2	1.9690	50.0	2.0510	52.1	2.3430	59.5	1.8700	47.5	2.1570	54.8
	E2	1.8390	46.7	2.2050	56.0	1.8390	46.7	2.2050	56.0	2.2990	58.4	2.5910	65.8	2.1180	53.8	2.4090	61.2
28	F	2.0590	52.3	2.4410	62.0	2.0510	52.1	2.4410	62.0	2.5510	64.8	2.8430	72.2	2.3700	60.2	2.6770	68.0
	F2	2.2870	58.1	2.6770	68.0	2.2830	58.0	2.6770	68.0	2.7990	71.1	3.0710	78.0	2.6180	66.5	2.8900	73.4

For Shell and hardware styles 13-2, 13-4, 15-2, 15-4, 17-2 or 17-4

SHELL#	CABLE GRIP CODE	CABLE OD			
		MIN. IN.	MAX. IN.	MIN. MM.	MAX. MM.
12	02	0.062	0.125	1.6	3.2
	04	0.125	0.250	3.2	6.4
	06	0.250	0.375	6.4	9.5
	08	0.375	0.500	9.5	12.7
	10	0.500	0.625	12.7	15.9
	12	0.625	0.750	15.9	19.1
	14	0.750	0.875	19.1	22.2
	15	0.875	0.937	22.2	23.8
16	06	0.250	0.375	6.4	9.5
	08	0.375	0.500	9.5	12.7
	10	0.500	0.625	12.7	15.9
	12	0.625	0.750	15.9	19.1
	14	0.750	0.875	19.1	22.2
	16	0.875	1.000	22.2	25.4
	18	1.000	1.125	25.4	28.6
	20	1.125	1.250	28.6	31.8
	22	1.250	1.375	31.8	34.9
	23	1.375	1.437	34.9	36.5
20/C20	10	0.500	0.625	12.7	15.9
	12	0.625	0.750	15.9	19.1
	14	0.750	0.875	19.1	22.2
	16	0.875	1.000	22.2	25.4
	18	1.000	1.125	25.4	28.6
	20	1.125	1.250	28.6	31.8
	22	1.250	1.375	31.8	34.9
	24	1.375	1.500	34.9	38.1
	26	1.500	1.625	38.1	41.3
	28	1.625	1.750	41.3	44.5
	30	1.750	1.875	44.5	47.6
	31	1.875	1.937	47.6	49.2
24/C24	16	0.875	1.000	22.2	25.4
	18	1.000	1.125	25.4	28.6
	20	1.125	1.250	28.6	31.8
	22	1.250	1.375	31.8	34.9
	24	1.375	1.500	34.9	38.1
	26	1.500	1.625	38.1	41.3
	28	1.625	1.750	41.3	44.5
	30	1.750	1.875	44.5	47.6
	32	1.875	2.000	47.6	50.8
	34	2.000	2.125	50.8	54.0
	36	2.125	2.250	54.0	57.2
	38	2.250	2.375	57.2	60.3
	39	2.375	2.437	60.3	61.9
28/C28	24	1.375	1.500	34.9	38.1
	26	1.500	1.625	38.1	41.3
	28	1.625	1.750	41.3	44.5
	30	1.750	1.875	44.5	47.6
	32	1.875	2.000	47.6	50.8
	34	2.000	2.125	50.8	54.0
	36	2.125	2.250	54.0	57.2
	38	2.250	2.375	57.2	60.3
	40	2.375	2.500	60.3	63.5
	42	2.500	2.625	63.5	66.7
	44	2.625	2.750	66.7	69.9
	46	2.750	2.875	69.9	73.0

STEP 4: SELECT LAYOUT

												AWG/MCM	18	16	12	10	8	4	Coax	1/0	4/0	313 MCM	350 MCM	373 MCM	444 MCM	500 MCM	535 MCM	646-777 MCM
												mm²	0.75	1.5	4	6	10	25		50	120	150	185	185	225	240	240	300 - 400
Layout	ATEX / IECEX Certified	ANSI / CSA Certified	Shell Size	Crimp Mod	Number of Contacts	Keying Available	Layout Description	Solder	Crimp	Pressured	Radsok																	
12-10	•		12	-	7	Δ	7#12	X						7														
12-11	•		12	-	7	Δ	7#12	X						7														
12-14	•	†	12	-	4	Δ	4#10	X		X					4													
12-15	•	†	12	-	4	Δ	4#10	X		X					4													
12-16	•	†	12	-	4	Δ	4#10	X		X					4													
12-17	•	†	12	-	10	Δ	10#16	X					10															
12-21	•	†	12	-	5	Δ	5#12	X						5														
12-22	•	†	12	-	4	Δ	4#10	X		X					4													
12-23	•	†	12	-	17	Δ	17#18	X				17																
12-24	•	†	12	-	5	Δ	5#12	X						5														
12-27	•	†	12	-	3	Δ	3#12	X						3														
12-310	•	†	12	II	7	Δ	7#12		X					7														
12-311	•		12	II	7	Δ	7#12		X					7														
12-314	•	†	12	II	4	Δ	4#10		X						4													
12-316	•	†	12	II	4	Δ	4#10		X						4													
12-317	•		12	II	10	Δ	10#16		X				10															
12-322	•	†	12	II	4	Δ	4#10		X						4													
12-323	•	†	12	II	17	Δ	17#18		X			17																
12-324	•	†	12	II	5	Δ	5#12		X					5														
12-326	•	†	12	II	5	Δ	3#16,2#8		X				3			2												
12-327	•	†	12	II	3	Δ	3#12		X					3														
12-33	•	†	12	-	4	Δ	4#16	X					4															
12-330	•		12	II	3	Δ	3#12		X					3														
12-333	•	†	12	II	4	Δ	4#16		X				4															
12-334	•	†	12	II	10	Δ	10#16		X				10															
12-346	•	†	12	II	4	Δ	4#10		X						4													
12-348	•		12	II	7	Δ	7#16		X				7															
12-354	•	†	12	II	7	Δ	7#12		X					7														
12-355	•	†	12	II	10	Δ	10#16		X				10															
12-45	•		12	-	3	Δ	3#8	X								3												
12-46	•	†	12	-	4	Δ	4#10	X		X					4													
12-53	•	†	12	-	5		5#12	X						5														
12-56	•		12	-	3	Δ	3#8	X								3												
12-614	•	†	12	III	4	Δ	4#10		X						4													
12-616	•	†	12	III	4	Δ	4#10		X						4													
12-617	•		12	III	10	Δ	10#16		X				10															
12-624	•	†	12	III	5	Δ	5#12		X					5														
12-637	•		12	III	3	Δ	3#10		X						3													
12-648	•	†	12	III	7	Δ	7#16		X				7															
12-649	•	†	12	III	3	Δ	3#10		X						3													
12-651	•	†	12	III	3	Δ	3#10		X						3													
12-653	•	†	12	III	5		5#12		X					5														
12-654	•	†	12	III	7	Δ	7#12		X					7														
12-655	•	†	12	III	10	Δ	10#16		X				10															
16-11	•		16	-	19	Δ	19#12	X						19														
16-12	•	†	16	-	19	Δ	19#12	X						19														
16-16	•	†	16	-	5	Δ	5#8	X								5												
16-21	•	†	16	-	37	Δ	37#16	X					37															
16-22	•	†	16	-	4	Δ	4#4	X		X							4											
16-23	•	†	16	-	4	Δ	4#4	X		X							4											
16-24	•	†	16	-	18	Δ	16#16,2#10	X					16		2													
16-25	•		16	-	16	Δ	16#16	X					16															
16-26	•	†	16	-	4	Δ	4#8	X								4												
16-27	•	†	16	-	5	Δ	5#8	X								5												
16-28	•	†	16	-	4	Δ	4#8	X								4												
16-29	•	†	16	-	9	Δ	8#16,1#4	X					8				1											
16-31	•		16	-	5	Δ	5#8	X								5												
16-311	•		16	II	19	Δ	19#12		X					19														
16-312	•	†	16	II	19	Δ	19#12		X					19														
16-316	•	†	16	II	5	Δ	5#8		X							5												
16-321	•	†	16	II	37	Δ	37#16		X				37															
16-322	•	†	16	II	4	Δ	4#4		X								4											
16-324	•	†	16	II	18	Δ	16#16,2#10		X				16		2													

STEP 4: SELECT LAYOUT

												AWG/MCM	18	16	12	10	8	4	Coax	1/0	4/0	313 MCM	350 MCM	373 MCM	444 MCM	500 MCM	535 MCM	646-777 MCM
												mm²	0.75	1.5	4	6	10	25		50	120	150	185	185	225	240	240	300 - 400
Layout	ATEX / IECEX Certified	ANSI / CSA Certified	Shell Size	Crimp Mod	Number of Contacts	Keying Available	Layout Description	Solder	Crimp	Pressured	Radsok																	
16-325	•	†	16	II	16	Δ	16#16		X					16														
16-328	•	†	16	II	4	Δ	4#8		X								4											
16-33	•	†	16	-	61	Δ	61#18	X				61																
16-333	•	†	16	II	61	Δ	61#18		X			61																
16-335	•	†	16	II	27	Δ	24#16,3#12		X				24	3														
16-344	•	†	16	II	21	Δ	11#16,10#12		X				11	10														
16-345	•	†	16	II	5	Δ	5#8		X								5											
16-346	•	†	16	II	9	Δ	6#12,3#8		X					6			3											
16-349	•	†	16	II	14	Δ	12#16,2#4		X				12					2										
16-355	•	†	16	II	19	Δ	19#16		X				19															
16-37	•	†	16	-	26	Δ	18#18, 4#16,4#12	X				18	4	4														
16-371	•	†	16	II	46		45#18,1#8		X			45					1											
16-373	•		16	II	27	Δ	24#16,3#12		X				24	3														
16-376	•		16	II	10	Δ	6#12,4#10		X					6	4													
16-377	•	†	16	II	19	Δ	19#12		X					19														
16-378	•	†	16	II	7	Δ	7#12		X					7														
16-38	•	†	16	-	4	Δ	4#4	X		X								4										
16-381	•		16	II	10	Δ	6#12,4#10		X					6	4													
16-40	•	†	16	-	55	Δ	55#18	X				55																
16-47	•	†	16	-	4	Δ	4#10	X							4													
16-51	•		16	-	3	Δ	3#4	X		X								3										
16-611	•		16	III	19	Δ	19#12		X					19														
16-616	•	†	16	III	5	Δ	5#8		X								5											
16-621	•	†	16	III	37	Δ	37#16		X				37															
16-622	•	†	16	III	4	Δ	4#4		X									4										
16-624	•	†	16	III	18	Δ	16#16,2#10		X				16		2													
16-628	•	†	16	III	4	Δ	4#8		X								4											
16-633	•	†	16	III	61	Δ	61#18		X			61																
16-635	•	†	16	III	27	Δ	24#16,3#12		X				24	3														
16-638	•	†	16	III	4	Δ	4#4		X									4										
16-640	•	†	16	III	55	Δ	55#18		X			55																
16-655	•	†	16	III	19	Δ	19#16		X				19															
16-673	•	†	16	III	27	Δ	24#16,3#12		X				24	3														
16-676	•	†	16	III	10	Δ	6#12,4#10		X					6	4													
16-677	•	†	16	III	19	Δ	19#12		X					19														
16-68	•		16	-	5	Δ	5#Coax	X											5									
16-681	•	†	16	III	10	Δ	6#12,4#10		X					6	4													
16-70	•	†	16	-	3	Δ	3#4	X		X								3										
16-74	•	†	16	-	3	Δ	3#4	X		X								3										
16-75	•	†	16	-	5		5#8	X									5											
20-10	•		20	-	37	Δ	37#12	X						37														
20-13	•		20	-	68	Δ	68#16	X					68															
20-23	•	†	20	-	38	Δ	35#16,3#10	X					35		3													
20-29	•	†	20	-	64	Δ	62#16,2#10	X					62		2													
20-31	•		20	-	22	Δ	20#16,2#8	X					20				2											
20-310	•	†	20	II	37	Δ	37#12		X					37														
20-313	•	†	20	II	68	Δ	68#16		X				68															
20-32	•	†	20	-	20	Δ	20#12	X						20														
20-323	•	†	20	II	38	Δ	35#16,3#10		X				35		3													
20-329	•	†	20	II	64	Δ	62#16,2#10		X				62		2													
20-331	•	†	20	II	22	Δ	20#16,2#8		X				20				2											
20-332	•	†	20	II	20	Δ	20#12		X					20														
20-334	•	†	20	II	20	Δ	16#16,4#8		X				16				4											
20-337	•		20	II	5	Δ	5#4		X									5										
20-34	•		20	-	20	Δ	16#16,4#8	X					16				4											
20-344	•	†	20	II	81	Δ	69#18,12#12		X			69		12														
20-345	•	†	20	II	90	Δ	90#18		X			90																
20-35	•	†	20	-	60	Δ	60#16	X					60															
20-350	•	†	20	II	37	Δ	37#12		X					37														
20-354	•	†	20	II	47	Δ	45#16,2#8		X				45				2											
20-357	•		20	II	22	Δ	20#16, 2#Coax		X				20						2									
20-358	•	†	20	II	16	Δ	16#8		X								16											

STEP 4: SELECT LAYOUT

												AWG/MCM	18	16	12	10	8	4	Coax	1/0	4/0	313 MCM	350 MCM	373 MCM	444 MCM	500 MCM	535 MCM	646-777 MCM
												mm²	0.75	1.5	4	6	10	25		50	120	150	185	185	225	240	240	300 - 400
Layout	ATEX / IECEX Certified	ANSI / CSA Certified	Shell Size	Crimp Mod	Number of Contacts	Keying Available	Layout Description	Solder	Crimp	Pressured	Radsok																	
20-359	•		20	II	7	Δ	7#8		X								7											
20-36	•	†	20	-	5	Δ	5#4	X		X								5										
20-37	•	†	20	-	5	Δ	5#4	X		X								5										
20-374	•	†	20	II	27	Δ	25#12,2#4		X					25				2										
20-375	•	†	20	II	12	Δ	12#10		X						12													
20-376	•		20	II	19		19#12		X					19														
20-38	•	†	20	-	5	Δ	5#4	X		X								5										
20-384	•	†	20	II	5		5#4		X									5										
20-386	•	†	20	II	37		37#12		X					37														
20-387	•	†	20	II	20	Δ	20#12		X					20														
20-388	•		20	II	19		19#12		X					19														
20-39	•		20	-	4	Δ	4#1/0	X												4								
20-390	•		20	II	21	Δ	21#12		X					21														
20-41	•		20	-	4	Δ	4#1/0	X												4								
20-43	•	†	20	-	6	Δ	2#10,4#4	X		X					2		4											
20-44	•		20	-	81	Δ	69#18,12#12	X				69		12														
20-45	•		20	-	90	Δ	90#18	X				90																
20-46	•	†	20	-	6	Δ	4#4,2#1/0	X										4		2								
20-48	•	†	20	-	6	Δ	3#12,3#1/0	X						3						3								
20-49	•	†	20	-	5	Δ	3#12,2#1/0	X		X				3						2								
20-55	•	†	20	-	10	Δ	8#12,2#1/0	X						8						2								
20-56	•		20	-	7	Δ	7#Coax	X											7									
20-613	•	†	20	III	68	Δ	68#16		X				68															
20-623	•	†	20	III	38	Δ	35#16,3#10		X				35		3													
20-632	•	†	20	III	20	Δ	20#12		X					20														
20-639	•		20	III	4	Δ	4#1/0		X											4								
20-643	•	†	20	III	6	Δ	2#10,4#4		X						2						4							
20-646	•	†	20	III	6	Δ	4#4,2#1/0		X								4			2								
20-648	•	†	20	III	6	Δ	3#12,3#1/0		X					3						3								
20-649	•	†	20	III	5	Δ	3#12,2#1/0		X					3						2								
20-659	•	†	20	III	7	Δ	7#8		X								7											
20-672	•	†	20	III	6	Δ	4#12,2#4		X					4				2										
20-673	•	†	20	III	50	Δ	46#16,4#8		X				46				4											
20-674	•	†	20	III	27	Δ	25#12,2#4		X					25				2										
20-676	•	†	20	III	19		19#12		X					19														
20-680	•	†	20	III	10	Δ	6#12,4#4		X					6				4										
20-685	•	†	20	III	10	Δ	6#12,4#4		X					6				4										
20-686	•	†	20	III	37		37#12		X					37														
20-688	•		20	III	19		19#12		X					19														
20-84	•	†	20	-	5		5#4	X		X								5										
24-11	•		24	-	58	Δ	58#12	X						58														
24-13	•		24	-	100	Δ	100#16	X					100															
24-16	•	†	24	-	66	Δ	58#16, 5#12, 3#Coax	X					58	5					3									
24-31	•		24	-	60	Δ	53#16,7#12	X					53	7														
24-311	•		24	II	58	Δ	58#12		X					58														
24-313	•	†	24	II	100		100#16		X				100															
24-331	•	†	24	II	60	Δ	53#16, 7#12		X				53	7														
24-352	•	†	24	II	58	Δ	58#12		X					58														
24-354	•	†	24	II	75	Δ	61#16, 11#12,3#8		X				61	11		3												
24-362	•		24	II	62	Δ	62#16		X				62															
24-371	•	†	24	II	37	Δ	37#16		X				37															
24-384	•	†	24	II	58	Δ	58#12		X					58														
24-385	•	†	24	II	100		100#16		X				100															
24-388	•		24	II	72	Δ	72#16		X				72															
24-389	•		24	II	60	Δ	60#16		X				60															
24-40	•	†	24	-	15	Δ	10#16,5#1/0	X					10							5								
24-55	•	†	24	-	8	Δ	4#4,4#1/0	X										4		4								
24-57	•		24	-	8	Δ	8#Coax	X											8									
24-613	•	†	24	III	100	Δ	100#16		X				100															
24-655	•	†	24	III	8	Δ	4#4,4#1/0		X									4		4								
24-658	•	†	24	III	7	Δ	7#4		X									7										
24-673	•	†	24	III	10	Δ	8#8,2#4		X							8		2										

STEP 4: SELECT LAYOUT

												AWG/MCM	18	16	12	10	8	4	Coax	1/0	4/0	313 MCM	350 MCM	373 MCM	444 MCM	500 MCM	535 MCM	646-777 MCM
												mm²	0.75	1.5	4	6	10	25		50	120	150	185	185	225	240	240	300 - 400
Layout	ATEX / IECEX Certified	ANSI / CSA Certified	Shell Size	Crimp Mod	Number of Contacts	Keying Available	Layout Description	Solder	Crimp	Pressured	Radsok																	
24-83	•	†	24	-	4	Δ	4#4/0	X													4							
24-84	•	†	24	-	58	Δ	58#12	X							58													
28-14	•	†	28	-	100	Δ	83#16,17#12	X						83	17													
28-22	•	†	28	-	143	Δ	143#16	X						143														
28-314	•	†	28	II	100	Δ	83#16,17#12		X					83	17													
28-322	•	†	28	II	143	Δ	143#16		X					143														
28-324	•	†	28	II	55	Δ	41#16,5#12, 3#8,6#4		X					41	5		3	6										
28-339	•	†	28	II	42	Δ	42#12		X						42													
C20-342	•	†	C20	II	4	Δ	4#1/0		X											4								
C20-379	•	†	C20	II	1		1#500MCM		X																	1		
C20-40	•	†	C20	-	4	Δ	4#1/0	X		X										4								
C20-42	•	†	C20	-	4	Δ	4#1/0	X		X										4								
C20-640	•	†	C20	III	4	Δ	4#1/0		X											4								
C20-642	•	†	C20	III	4	Δ	4#1/0		X											4								
C24-26	•	†	C24	-	4	Δ	4#4/0	X		X											4							
C24-29	•	†	C24	-	5	Δ	5#1/0	X		X										5								
C24-313	•	†	C24	II	1		1#313MCM		X													1						
C24-353	•	†	C24	II	8	Δ	4#12,4#1/0		X						4					4								
C24-36	•	†	C24	-	37	Δ	35#12,2#1/0	X							35					2								
C24-373	•		C24	II	1		1#373MCM		X															1				
C24-38	•	†	C24	-	4	Δ	4#4/0	X		X											4							
C24-386	•	†	C24	II	1		1#777MCM		X																			1
C24-39	•		C24	-	4	Δ	4#4/0	X		X											4							
C24-42	•	†	C24	-	4	Δ	4#1/0	X												4								
C24-43	•	†	C24	-	4	Δ	4#1/0	X												4								
C24-44	•		C24	-	5	Δ	5#1/0	X		X										5								
C24-47	•	†	C24	-	15	Δ	10#12,5#1/0	X							10					5								
C24-48	•	†	C24	-	5	Δ	2#12,3#4/0	X							2						3							
C24-49	•	†	C24	-	5	Δ	5#1/0	X		X										5								
C24-50	•	†	C24	-	6	Δ	2#10, 1#4,3#1/0	X								2		1		3								
C24-535	•	†	C24	II	1		1#535MCM		X																		1	
C24-59	•	†	C24	-	7	Δ	7#1/0	X												7								
C24-659	•	†	C24	III	7	Δ	7#1/0		X											7								
C24-675	•	†	C24	III	10	Δ	6#12,4#1/0		X						6					4								
C24-680	•	†	C24	III	10	Δ	6#12,4#1/0		X						6					4								
C24-687	•		C24	III	9	Δ	2#12, 4#4,3#1/0		X						2			4		3								
C24-72	•	†	C24	-	6	Δ	3#12,3#4/0	X							3						3							
C24-79	•	†	C24	-	5	Δ	5#1/0	X		X										5								
C24-81	•	†	C24	-	15		10#12,5#1/0	X							10					5								
C24-R313	•	†	C24	II	1		1#313MCM		X		X											1						
C24-R373	•		C24	II	1		1#373MCM		X		X													1				
C24-R386	•	†	C24	II	1		1#777MCM		X	X	X																	1
C24-R44	•		C24	-	7		1#10,3#8, 3#1/0	X		X	X					1	3			3								
C24-R535	•	†	C24	II	1		1#535MCM		X		X																1	
C28-12	•	†	C28	-	39	Δ	31#12,5#10, 1#8,2#1/0	X							31	5	1			2								
C28-15	•	†	C28	-	47	Δ	43#12, 3#4,1#1/0	X							43			3		1								
C28-17	•	†	C28	-	6	Δ	2#12,4#4/0	X							2						4							
C28-18	•	†	C28	-	6	Δ	2#12, 4#350MCM	X							2								4					
C28-19	•		C28	-	5	Δ	5#4/0	X		X											5							
C28-20	•	†	C28	-	5	Δ	5#4/0	X		X											5							
C28-21	•	†	C28	-	8	Δ	4#12, 4#350MCM	X							4								4					
C28-23	•	†	C28	-	5	Δ	5#4/0	X		X											5							
C28-327	•	†	C28	II	6	Δ	6#1/0		X											6								
C28-328	•	†	C28	II	29	Δ	23#12, 2#8,4#1/0		X						23		2			4								
C28-42	•	†	C28	-	6	Δ	2#10,4#4/0	X		X						2					4							
C28-43	•	†	C28	-	8	Δ	4#12, 4#350MCM	X							4								4					
C28-627	•	†	C28	III	6	Δ	6#1/0		X											6								
C28-628	•	†	C28	III	29	Δ	23#12, 2#8,4#1/0		X						23		2			4								
C28-R18	•	†	C28	-	6	Δ	2#12, 4#350MCM	X			X				2								4					
C28-R42	•	†	C28	-	6	Δ	2#10,4#4/0	X		X	X					2					4							
C28-R44	•		C28	-	7	Δ	1#10, 3#8,3#4/0	X		X	X					1	3			3								

Arrangements with RADSOK contacts are designated with an 'R' in front of the dash number. Example ZP-16-R322

CREATE YOUR PART NUMBER

STEP 5: SELECT CONTACT TYPE

P = Pin

S = Socket

STEP 6: SELECT CONTACT TERMINATION

Blank = Solder

N = Crimp

R = Pressure

See Layout Table for valid Termination Type

STEP 7: SELECT CONTACT PLATING

Blank = Silver

K = Gold

STEP 8: SELECT KEYING

Blank = Normal

See Layout Table for valid Keying by Insert Layout

STEP 9: CABLE TYPE

Blank = Unarmored

BS = Armored & Sheathed Cable

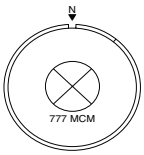
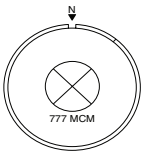
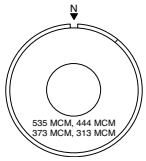
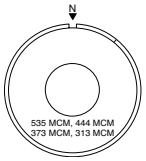
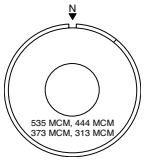
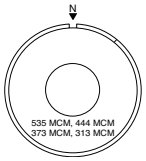
BSR = Armored & Sheathed with Reduced Bore Cable

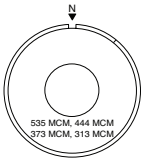
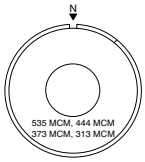
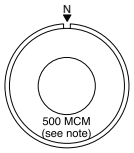
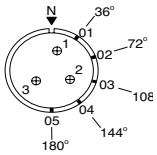
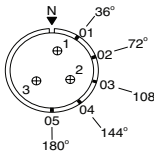
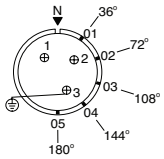
CREATE YOUR PART NUMBER

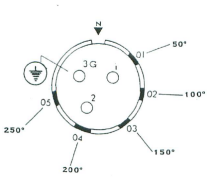
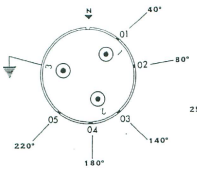
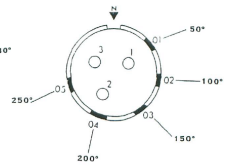
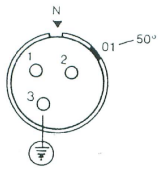
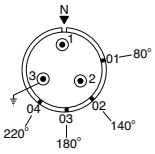
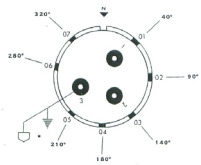
Grounding Contact Termination Symbol

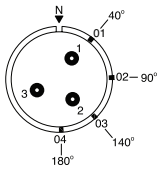
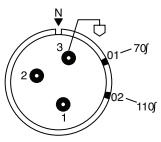
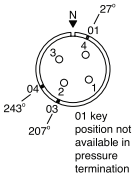
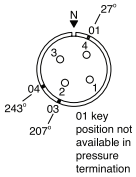
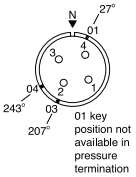
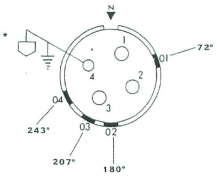
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	1					
						
LAYOUT	C24-386	C24-R386	C24-535	C24-R535	C24-313	C24-R313
# OF CONTACTS	1#777MCM	1#777MCM	1#535MCM	1#535MCM	1#313MCM	1#313MCM

CONTACTS	1			3		
						
LAYOUT	C24-373	C24-R373	C20-379	12-27	12-327	12-330
# OF CONTACTS	1#373MCM	1#373MCM	1#500MCM	3#12	3#12	3#12

CONTACTS	3					
						
LAYOUT	12-637	12-45	12-649	12-651	12-56	16-51
# OF CONTACTS	3#10	3#8	3#10	3#10	3#8	3#4

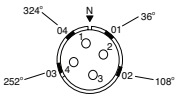
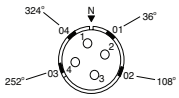
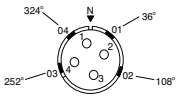
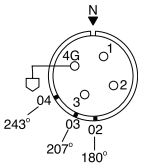
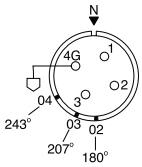
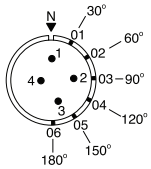
CONTACTS	3		4			
			 01 key position not available in pressure termination	 01 key position not available in pressure termination	 01 key position not available in pressure termination	
LAYOUT	16-70	16-74	12-14	12-314	12-614	12-15
# OF CONTACTS	3#4	3#4	4#10	4#10	4#10	4#10

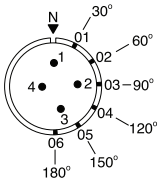
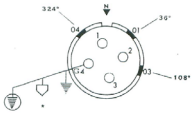
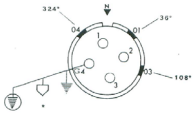
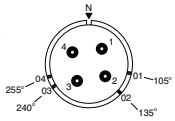
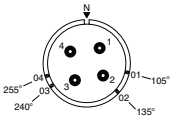
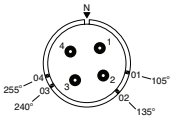
LAYOUT BY NUMBER OF CONTACTS

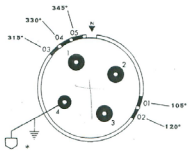
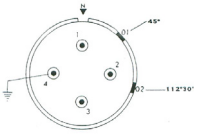
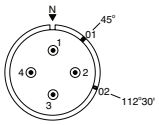
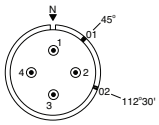
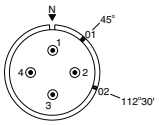
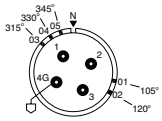
Grounding Contact Termination Symbol

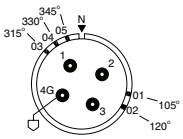
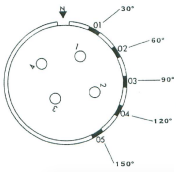
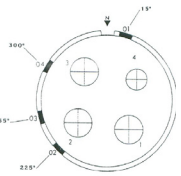
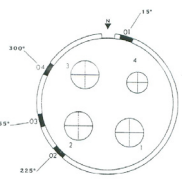
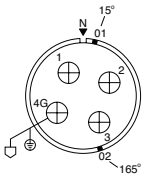
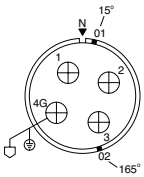
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	4					
						
LAYOUT	12-16	12-316	12-616	12-22	12-322	12-33
# OF CONTACTS	4#10	4#10	4#10	4#10	4#10	4#16

CONTACTS	4					
						
LAYOUT	12-333	12-46	12-346	16-22	16-322	16-622
# OF CONTACTS	4#16	4#10	4#10	4#4	4#4	4#4

CONTACTS	4					
			 NOTE: Cannot be used with short cable adapter	 NOTE: Cannot be used with short cable adapter	 NOTE: Cannot be used with short cable adapter	
LAYOUT	16-23	16-26	16-28	16-328	16-628	16-38
# OF CONTACTS	4#4	4#8	4#8	4#8	4#8	4#4

CONTACTS	4					
						
LAYOUT	16-638	16-47	20-39	20-639	C20-40	C20-640
# OF CONTACTS	4#4	4#10	4#1/0	4#1/0	4#1/0	4#1/0

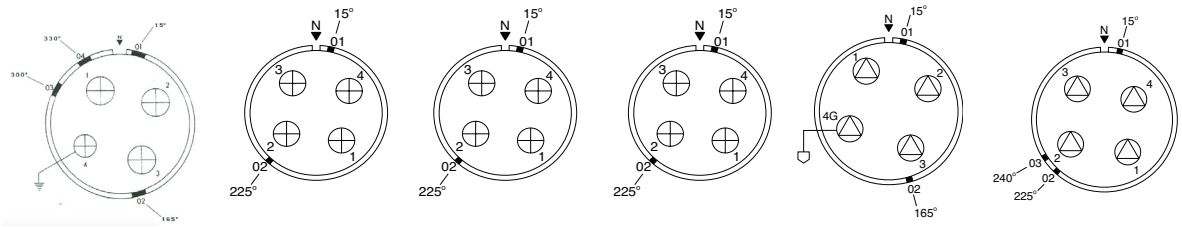
CREATE YOUR PART NUMBER

Grounding Contact Termination Symbol

Solder Well | Pressure | Crimp

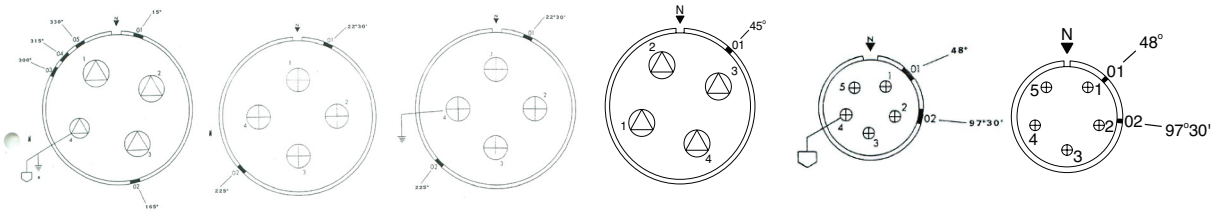
18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	4



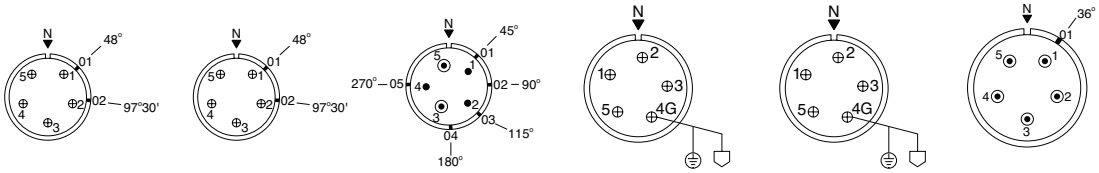
LAYOUT	20-41	C20-42	C20-342	C20-642	C24-26	C24-38
# OF CONTACTS	4#1/0	4#1/0	4#1/0	4#1/0	4#4/0	4#4/0

CONTACTS	4	5



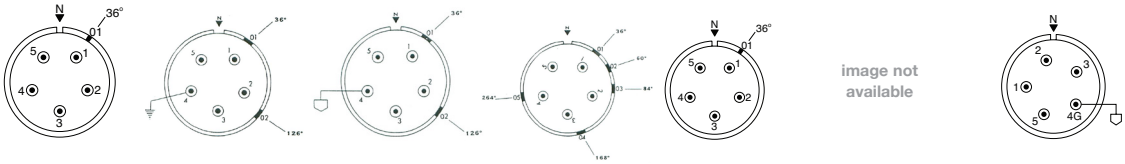
LAYOUT	C24-39	C24-42	C24-43	24-83	12-21	12-24
# OF CONTACTS	4#4/0	4#1/0	4#1/0	4#4/0	5#12	5#12

CONTACTS	5



LAYOUT	12-324	12-624	12-326	12-53	12-653	16-16
# OF CONTACTS	5#12	5#12	3#16,2#8	5#12	5#12	5#8

CONTACTS	5



LAYOUT	16-316	16-27	16-31	16-345	16-616	16-68	16-75
# OF CONTACTS	5#8	5#8	5#8	5#8	5#8	5#COAX	5#8

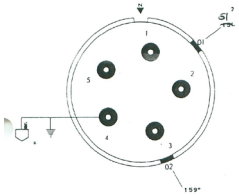
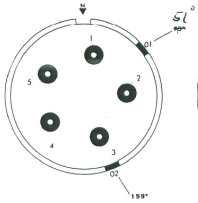
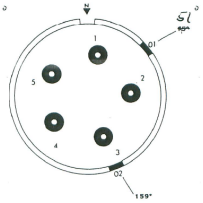
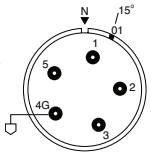
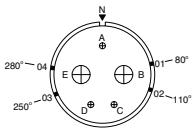
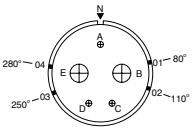
image not available

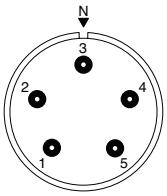
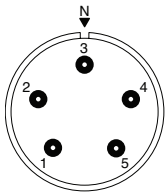
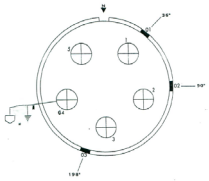
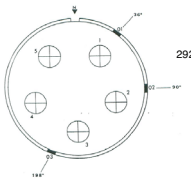
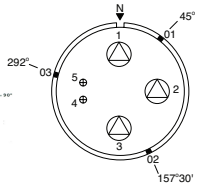
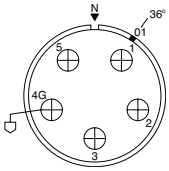
LAYOUT BY NUMBER OF CONTACTS

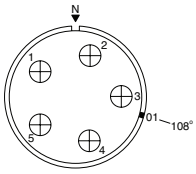
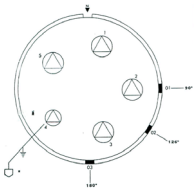
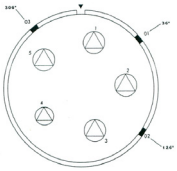
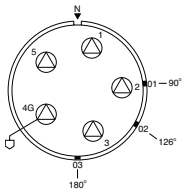
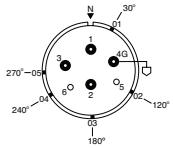
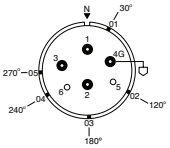
Grounding Contact Termination Symbol

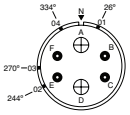
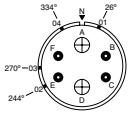
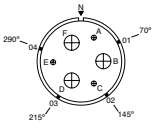
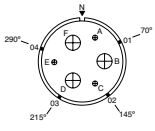
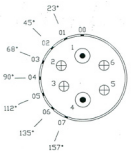
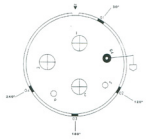
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	5					
						
LAYOUT	20-36	20-37	20-337	20-38	20-49	20-649
# OF CONTACTS	5#4	5#4	5#4	5#4	3#12,2#1/0	3#12,2#1/0

CONTACTS	5					
						
LAYOUT	20-84	20-384	C24-29	C24-44	C24-48	C24-49
# OF CONTACTS	5#4	5#4	5#1/0	5#1/0	2#12,3#4/0	5#1/0

CONTACTS	5				6	
						
LAYOUT	C24-79	C28-19	C28-20	C28-23	20-43	20-643
# OF CONTACTS	5#1/0	5#4/0	5#4/0	5#4/0	2#10,4#4	2#10,4#4

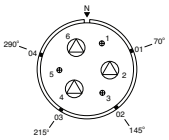
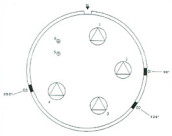
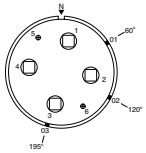
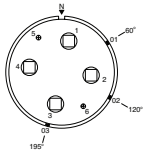
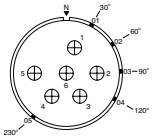
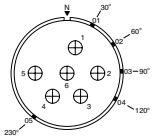
CONTACTS	6					
						
LAYOUT	20-46	20-646	20-48	20-648	20-672	C24-50
# OF CONTACTS	4#4,2#1/0	4#4,2#1/0	3#12,3#1/0	3#12,3#1/0	4#12,2#4	2#10,1#4,3#1/0

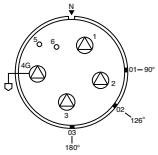
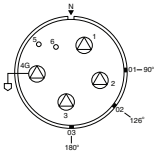
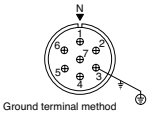
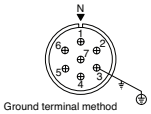
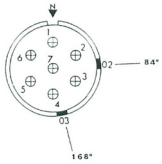
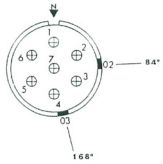
CREATE YOUR PART NUMBER

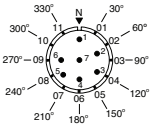
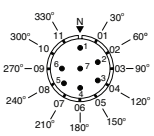
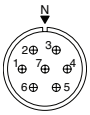
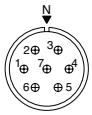
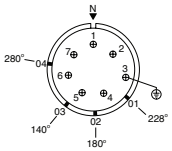
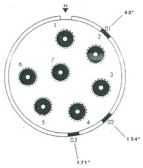
Grounding Contact Termination Symbol

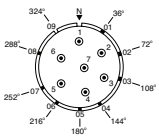
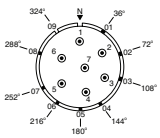
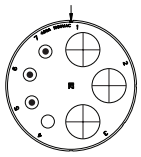
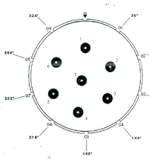
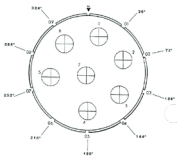
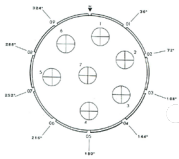
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	6					
						
LAYOUT	C24-72	C28-17	C28-18	C28-R18	C28-327	C28-627
# OF CONTACTS	3#12,3#4/0	2#12,4#4/0	2#12,4#350MCM	2#12,4#350MCM	6#1/0	6#1/0

CONTACTS	6		7			
			 Ground terminal method same as corresponding line contacts	 Ground terminal method same as corresponding line contacts		
LAYOUT	C28-42	C28-R42	12-10	12-310	12-11	12-311
# OF CONTACTS	2#10,4#4/0	2#10,4#4/0	7#12	7#12	7#12	7#12

CONTACTS	7					
						
LAYOUT	12-348	12-648	12-354	12-654	16-378	20-56
# OF CONTACTS	7#16	7#16	7#12	7#12	7#12	7#COAX

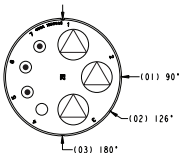
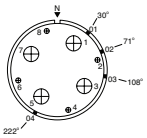
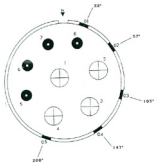
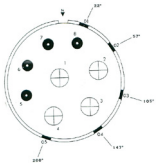
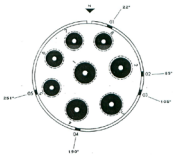
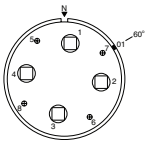
CONTACTS	7					
						
LAYOUT	20-359	20-659	C24-R44	24-658	C24-59	C24-659
# OF CONTACTS	7#8	7#8	3#1/0,3#8,1#10	7#4	7#1/0	7#1/0

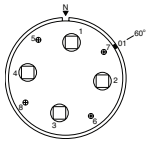
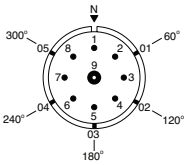
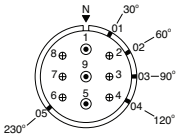
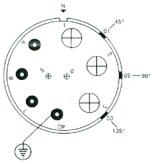
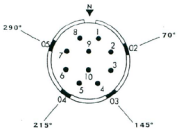
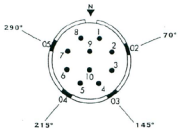
LAYOUT BY NUMBER OF CONTACTS

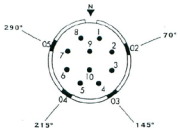
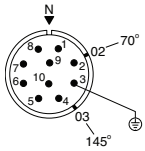
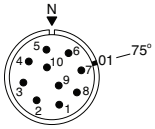
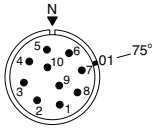
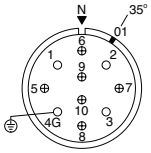
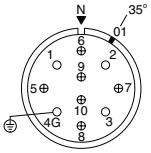
Grounding Contact Termination Symbol

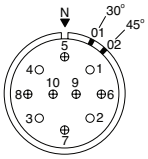
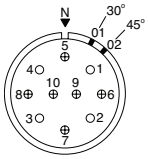
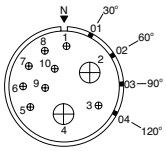
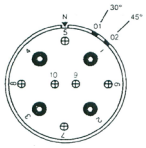
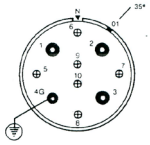
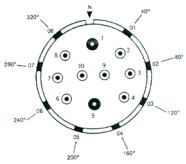
Solder Well | Pressure | Crimp

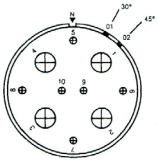
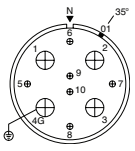
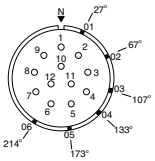
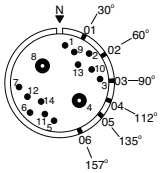
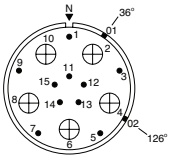
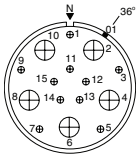
18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	7	8				
						
LAYOUT	C28-R44	C24-353	24-55	24-655	24-57	C28-21
# OF CONTACTS	1#10,3#8,3#4/0	4#12,4#1/0	4#4,4#1/0	4#4,4#1/0	8#COAX	4#12,4#350MCM

CONTACTS	8	9			10	
						
LAYOUT	C28-43	16-29	16-346	C24-687	12-17	12-317
# OF CONTACTS	4#12,4#350MCM	8#16,1#4	6#12,3#8	2#12,4#4,3#1/0	10#16	10#16

CONTACTS	10					
						
LAYOUT	12-617	12-334	12-355	12-655	16-376	16-676
# OF CONTACTS	10#16	10#16	10#16	10#16	6#12,4#10	6#12,4#10

CONTACTS	10					
						
LAYOUT	16-381	16-681	20-55	20-680	20-685	24-673
# OF CONTACTS	6#12,4#10	6#12,4#10	8#12,2#1/0	6#12,4#4	6#12,4#4	8#8,2#4

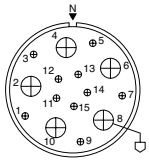
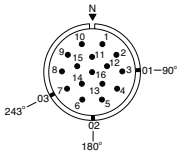
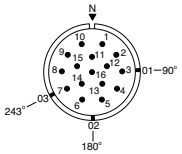
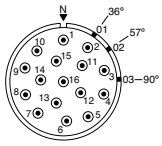
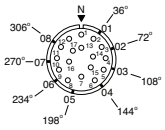
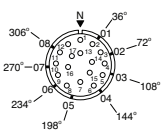
CONTACTS	10		12	14	15	
						
LAYOUT	C24-675	C24-680	20-375	16-349	24-40	C24-47
# OF CONTACTS	6#12,4#1/0	6#12,4#1/0	12#10	12#16,2#4	10#16,5#1/0	10#12,5#1/0

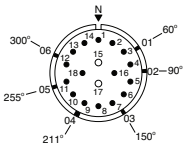
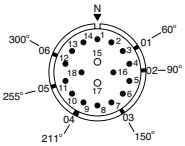
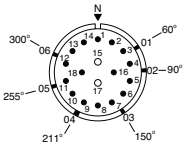
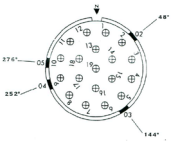
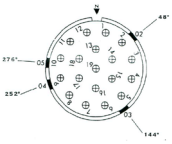
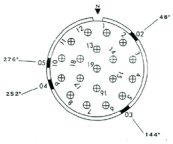
CREATE YOUR PART NUMBER

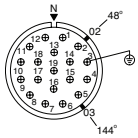
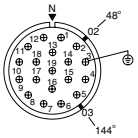
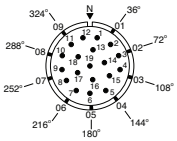
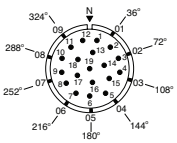
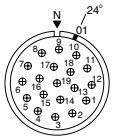
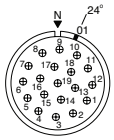
Grounding Contact Termination Symbol

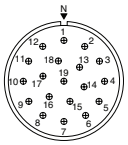
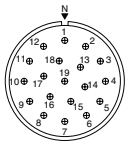
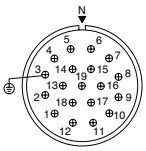
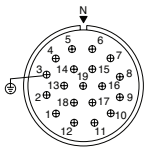
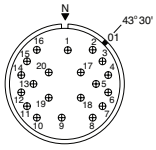
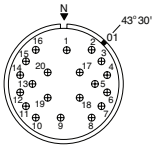
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	15	16			17	
						
LAYOUT	C24-81	16-25	16-325	20-358	12-23	12-323
# OF CONTACTS	10#12,5#1/0	16#16	16#16	16#8	17#18	17#18

CONTACTS	18			19		
						
LAYOUT	16-24	16-324	16-624	16-11	16-311	16-611
# OF CONTACTS	16#16,2#10	16#16,2#10	16#16,2#10	19#12	19#12	19#12

CONTACTS	19					
						
LAYOUT	16-12	16-312	16-355	16-655	16-377	16-677
# OF CONTACTS	19#12	19#12	19#16	19#16	19#12	19#12

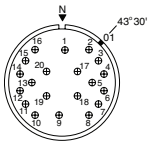
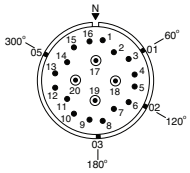
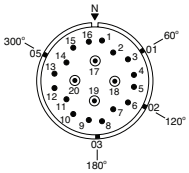
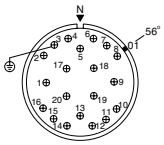
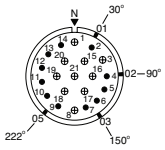
CONTACTS	19				20	
						
LAYOUT	20-376	20-676	20-388	20-688	20-32	20-332
# OF CONTACTS	19#12	19#12	19#12	19#12	20#12	20#12

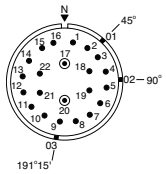
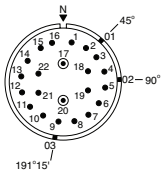
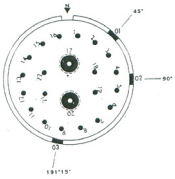
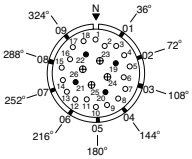
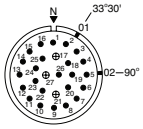
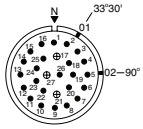
LAYOUT BY NUMBER OF CONTACTS

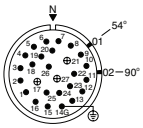
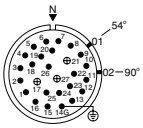
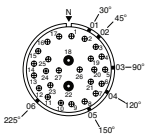
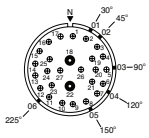
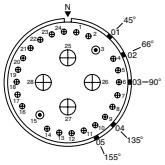
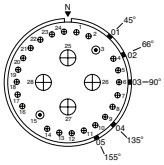
Grounding Contact Termination Symbol

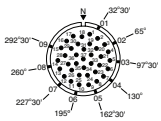
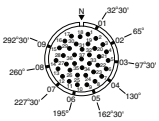
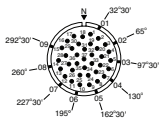
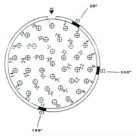
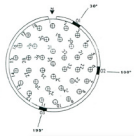
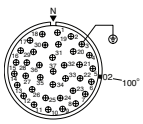
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	20					21
						image not available
LAYOUT	20-632	20-34	20-334	20-387	16-344	20-390
# OF CONTACTS	20#12	16#16,4#8	16#16,4#8	20#12	11#16,10#12	21#12

CONTACTS	22			26	27	
						
LAYOUT	20-31	20-331	20-357	16-37	16-335	16-635
# OF CONTACTS	20#16,2#8	20#16,2#8	20#16,2#COAX	18#18,4#16,4#12	24#16,3#12	24#16,3#12

CONTACTS	27				29	
						
LAYOUT	16-373	16-673	20-374	20-674	C28-328	C28-628
# OF CONTACTS	24#16,3#12	24#16,3#12	25#12,2#4	25#12,2#4	23#12,2#8,4#1/0	23#12,2#8,4#1/0

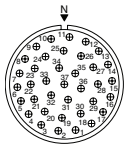
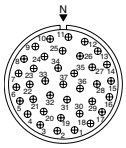
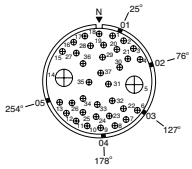
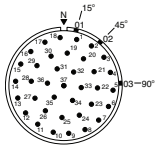
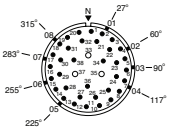
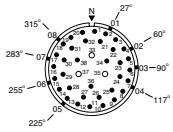
CONTACTS	37					
						
LAYOUT	16-21	16-321	16-621	20-10	20-310	20-350
# OF CONTACTS	37#16	37#16	37#16	37#12	37#12	37#12

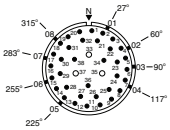
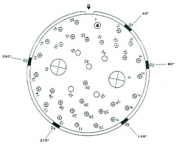
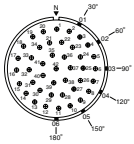
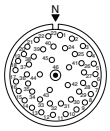
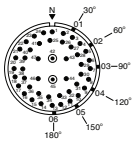
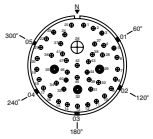
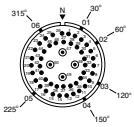
CREATE YOUR PART NUMBER

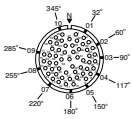
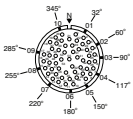
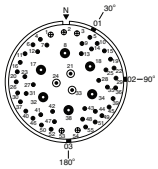
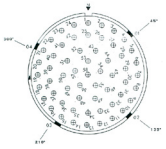
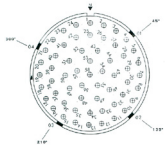
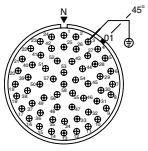
Grounding Contact Termination Symbol

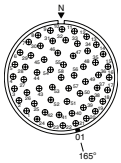
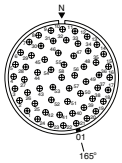
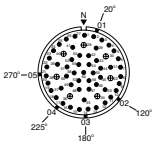
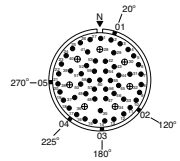
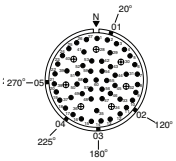
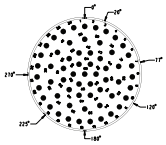
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	37				38	
						
LAYOUT	20-386	20-686	C24-36	24-371	20-23	20-323
# OF CONTACTS	37#12	37#12	35#12,2#1/0	37#16	35#16,3#10	35#16,3#10

CONTACTS	38	39	42	46	47		50
							
LAYOUT	20-623	C28-12	28-339	16-371	20-354	C28-15	20-673
# OF CONTACTS	35#16,3#10	31#12,5#10,1#8,2#1/0	42#12	45#18,1#8	45#16,2#8	43#12,3#4,1#1/0	46#16,4#8

CONTACTS	55			58		
						
LAYOUT	16-40	16-640	28-324	24-11	24-311	24-352
# OF CONTACTS	55#18	55#18	41#16,5#12,3#8,6#4	58#12	58#12	58#12

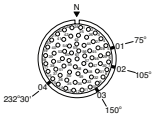
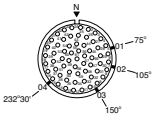
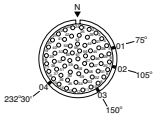
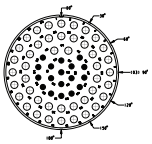
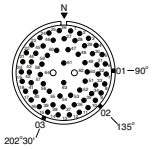
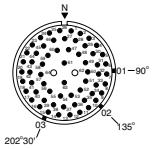
CONTACTS	58		60			
						
LAYOUT	24-84	24-384	20-35	24-31	24-331	24-389
# OF CONTACTS	58#12	58#12	60#16	53#16,7#12	53#16,7#12	60#16

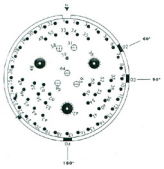
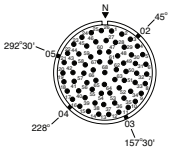
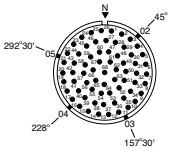
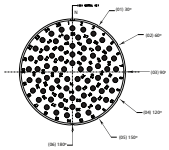
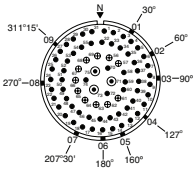
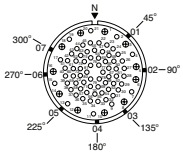
LAYOUT BY NUMBER OF CONTACTS

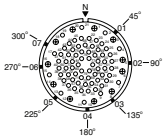
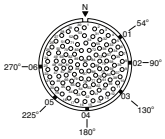
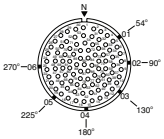
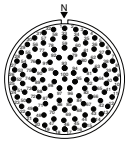
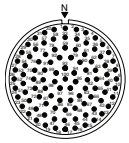
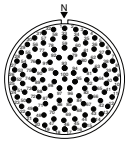
Grounding Contact Termination Symbol

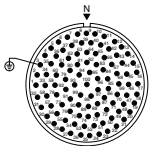
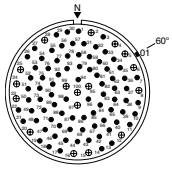
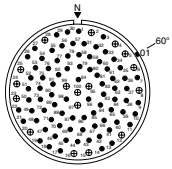
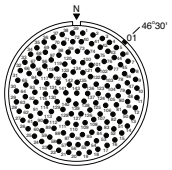
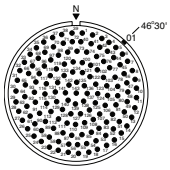
Solder Well | Pressure | Crimp

18 | 16 | 12 | 10 | 8 | 4 | 1/0 | 4/0 | 350 MCM | 500 MCM | 646-777

CONTACTS	61			62	64	
						
LAYOUT	16-33	16-333	16-633	24-362	20-29	20-329
# OF CONTACTS	61#18	61#18	61#18	62#16	62#16,2#10	62#16,2#10

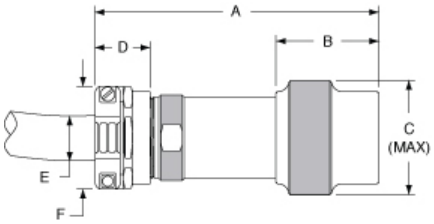
CONTACTS	66	68		72	75	81
						
LAYOUT	24-16	20-13	20-313	24-388	24-354	20-44
# OF CONTACTS	58#16,5#12,3 COAX	68#16	68#16	72#16	61#16,11#12,3#8	69#18,12#12

CONTACTS	81	90		100		
						
LAYOUT	20-344	20-45	20-345	24-13	24-313	24-613
# OF CONTACTS	69#18,12#12	90#18	90#18	100#16	100#16	100#16

CONTACTS	100			143	
					
LAYOUT	24-385	28-14	28-314	28-22	28-322
# OF CONTACTS	100#16	83#16,17#12	83#16,17#12	143#16	143#16

PLUGS

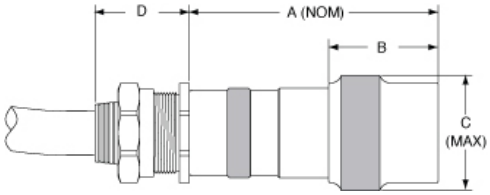
EX-13-2 STYLE PLUG WITH MECHANICAL CLAMP (POTTING REQUIRED)



SHELL SIZE	A*	B*	C	D	E	F
12	7-7/16 (189)	3-9/16 (91)	2-1/8 (54)	2 (51)	15/16 (24)	2-3/8 (60)
16	9-1/2 (241)	3-9/16 (91)	2-5/8 (67)	2-1/16 (52)	1-7/16 (37)	3 (76)
20	9-9/16 (243)	3-9/16 (91)	3-1/8 (79)	2-1/8 (54)	1-15/16 (49)	3-3/4 (95)
24	9-5/8 (245)	3-9/16 (91)	3-5/8 (92)	2-3/16 (56)	2-7/16 (62)	4-1/2 (114)
28	9-11/16 (246)	3-9/16 (91)	4-1/8 (105)	2-1/4 (57)	2-7/8 (73)	5-1/8 (130)

***Note:** For “C” length inserts, add 1/2” to both dimensions “A” & “B”.

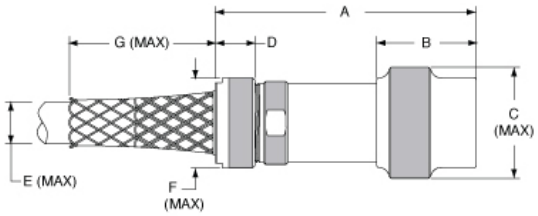
EX-13-3 STYLE PLUG WITH EEX D GLAND



SHELL SIZE	A*	B*	C	GLAND THREAD
12	6-1/16 (154)	3-9/16 (91)	2-1/8 (54)	M25
16	8-1/16 (205)	3-9/16 (91)	2-5/8 (67)	M40
20	8-1/16 (205)	3-9/16 (91)	3-1/8 (79)	M50
24	8-1/16 (205)	3-9/16 (91)	3-5/8 (92)	M63
28	8-1/16 (205)	3-9/16 (91)	4-1/8 (105)	M75

***Notes:** For “C” length inserts, add 1/2” to both dimensions “A” & “B”.
‘D’ Dimension varies according to cable gland. Detailed cable dimensions and type required.
Gland is included with the connector.

EX-13-4 STYLE PLUG WITH BASKETWEAVE CABLE GRIP W (POTTING REQUIRED)



SHELL SIZE	A*	B*	C	D	E	F	G
12	6-1/16 (154)	3-9/16 (91)	2-1/8 (54)	1-1/4 (32)	15/16 (24)	1-9/32 (33)	8 (203)
16	8-1/16 (205)	3-9/16 (91)	2-5/8 (67)	1-1/4 (32)	1-7/16 (37)	1-25/32 (45)	10-1/2 (267)
20	8-1/16 (205)	3-9/16 (91)	3-1/8 (79)	1-1/4 (32)	1-15/16 (49)	2-9/32 (58)	14-1/2 (368)
24	8-1/16 (205)	3-9/16 (91)	3-5/8 (92)	1-1/4 (32)	2-7/16 (62)	2-25/32 (71)	17-1/2 (445)
28	8-1/16 (205)	3-9/16 (91)	4-1/8 (105)	1-1/4 (32)	2-7/8 (73)	3-9/32 (83)	19 (483)

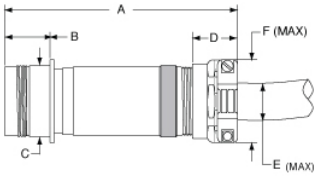
***Note:** For “C” length inserts, add 1/2” to both dimensions “A” & “B”.
Dimensions are shown in Inches (mm) unless otherwise indicated.

RECEPTACLES

EX-15-2 STYLE IN-LINE RECEPTACLE WITH MECHANICAL CLAMP (POTTING REQUIRED)

SHELL SIZE	A*	B*	C	D	E	F
12	7 (178)	1-7/16 (37)	1-1/2 (38)	2 (51)	15/16 (24)	2-3/8 (60)
16	9-1/16 (230)	1-7/16 (37)	2 (51)	2-1/16 (52)	1-7/16 (37)	3 (76)
20	9-1/8 (232)	1-7/16 (37)	2-1/2 (64)	2-1/8 (54)	1-15/16 (49)	3-3/4 (95)
24	9-3/16 (233)	1-7/16 (37)	3 (76)	2-3/16 (56)	2-7/16 (62)	4-1/2 (114)
28	9-1/4 (235)	1-7/16 (37)	3-1/2 (89)	2-1/4 (57)	2-7/8 (73)	5-1/8 (130)

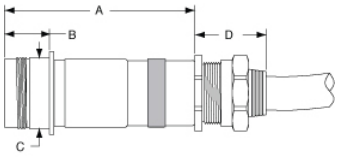
*Note: For "C" length inserts, add 1/2" to both dimensions "A" & "B".



EX-15-3 STYLE IN-LINE RECEPTACLE WITH EEX D GLAND

SHELL SIZE	A*	B*	C	GLAND THREAD
12	5-5/8 (143)	1-7/16 (37)	1-1/2 (38)	M25
16	7-5/8 (194)	1-7/16 (37)	2 (51)	M40
20	7-5/8 (194)	1-7/16 (37)	2-1/2 (64)	M50
24	7-5/8 (194)	1-7/16 (37)	3 (76)	M63
28	7-5/8 (194)	1-7/16 (37)	3-1/2 (89)	M75

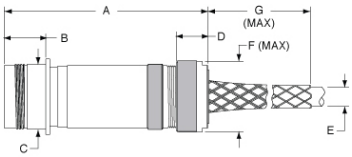
*Notes: For "C" length inserts, add 1/2" to both dimensions "A" & "B".
'D' Dimension varies according to cable gland. Detailed cable dimensions and type required.
Gland is included with the connector.



EX-15-4 STYLE IN-LINE RECEPTACLE WITH BASKETWEAVE CABLE GRIP (POTTING REQUIRED)

SHELL SIZE	A*	B*	C	D	E	F	G
12	6-1/4 (159)	1-7/16 (37)	1-1/2 (38)	1-1/4 (32)	15/16 (24)	1-9/32 (33)	8 (203)
16	8-1/4 (210)	1-7/16 (37)	2 (51)	1-1/4 (32)	1-7/16 (37)	1-25/32 (45)	10-1/2 (267)
20	8-1/4 (210)	1-7/16 (37)	2-1/2 (64)	1-1/4 (32)	1-15/16 (49)	2-9/32 (58)	14-1/2 (368)
24	8-1/4 (210)	1-7/16 (37)	3 (76)	1-1/4 (32)	2-7/16 (62)	2-25/32 (71)	17-1/2 (445)
28	8-1/4 (210)	1-7/16 (37)	3-1/2 (89)	1-1/4 (32)	2-7/8 (73)	3-9/32 (83)	19 (483)

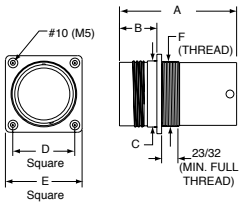
*Note: For "C" length inserts, add 1/2" to both dimensions "A" & "B".
Dimensions are shown in Inches (mm) unless otherwise indicated.



EX-17-1 STYLE PANEL MOUNT RECEPTACLE

SHELL SIZE	A*	B*	C	D	E	F
12	4-7/16 (113)	1.765 (45)	1-1/2 (38)	1.654 (42)	2-1/4 (57)	M40
16	4-7/16 (113)	1.765 (45)	2 (51)	2.047 (52)	2-5/8 (67)	M50
20	4-7/16 (113)	1.765 (45)	2-1/2 (64)	2.441 (62)	3 (76)	M63
24	4-7/16 (113)	1.765 (45)	3 (76)	2.835 (72)	3-1/2 (89)	M75
28	4-7/16 (113)	1.765 (45)	3-1/2 (89)	3.228 (82)	4 (102)	M90

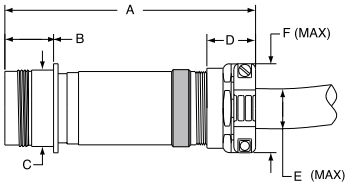
*Note: For "C" length inserts, add 1/2" to both dimensions "A" & "B".



EX-17-2 STYLE FIXED IN-LINE RECEPTACLE WITH MECHANICAL CLAMP (POTTING REQUIRED)

SHELL SIZE	A*	B*	C	D	E	F
12	7 (178)	1-7/16 (37)	1-1/2 (38)	2 (51)	5/16 (24)	2-3/8 (60)
16	9-1/16 (230)	1-7/16 (37)	2 (51)	2-1/16 (52)	1-7/16 (37)	3 (76)
20	9-1/8 (229)	1-7/16 (37)	2-1/2 (64)	2-1/8 (54)	1-15/16 (49)	3-3/4 (95)
24	9-3/16 (233)	1-7/16 (37)	3 (76)	2-3/16 (56)	2-7/16 (62)	4-1/2 (114)
28	9-1/4 (235)	1-7/16 (37)	3-1/2 (89)	2-1/4 (57)	2-7/8 (73)	5-1/8 (130)

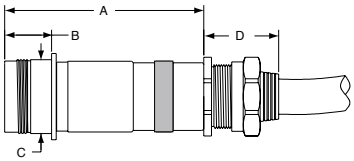
*Note: For "C" length inserts, add 1/2" to both dimensions "A" & "B".



EX-17-3 STYLE FIXED IN-LINE RECEPTACLE WITH EEX D GLAND

SHELL SIZE	A*	B*	C	D
12	5-5/8 (143)	1-7/16 (37)	1-1/2 (38)	M25
16	7-7/8 (194)	1-7/16 (37)	2 (51)	M40
20	7-7/8 (194)	1-7/16 (37)	2-1/2 (64)	M50
24	7-7/8 (194)	1-7/16 (37)	3 (76)	M63
28	7-7/8 (194)	1-7/16 (37)	3-1/2 (89)	M75

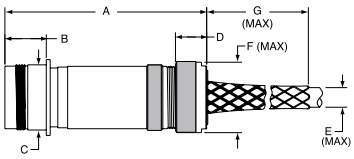
*Note: For "C" length inserts, add 1/2" to both dimensions "A" & "B".



EX-17-4 STYLE FIXED IN-LINE RECEPTACLE WITH BASKETWEAVE CABLE GRIP (POTTING REQUIRED)

SHELL SIZE	A*	B*	C	D	E	F	G
12	6-1/4 (159)	1-7/16 (37)	1-1/2 (38)	1-1/4 (32)	5/16 (24)	1-9/32 (33)	8 (203)
16	8-1/4 (210)	1-7/16 (37)	2 (51)	1-1/4 (32)	1-7/16 (37)	1-25/32 (45)	10-1/2 (267)
20	8-1/4 (210)	1-7/16 (37)	2-1/2 (64)	1-1/4 (32)	1-15/16 (49)	2-9/32 (58)	14-1/2 (368)
24	8-1/4 (210)	1-7/16 (37)	3 (76)	1-1/4 (32)	2-7/16 (62)	2-25/32 (71)	17-1/2 (445)
28	8-1/4 (210)	1-7/16 (37)	3-1/2 (89)	1-1/4 (32)	2-7/8 (73)	3-9/32 (83)	19 (483)

*Note: For "C" length inserts, add 1/2" to both dimensions "A" & "B".



MOD II CRIMP CONTACTS & TOOLING

CONTACT SIZE	CRIMP WIRE RANGE	PIN	"C" PIN*	GROUND PIN	SOCKET	WIRE STRIP LENGTH	HAND CRIMP TOOL	LOCATOR	POWER CRIMP TOOL	POWER CRIMP DIE	POWER CRIMP LOCATOR	"C" PIN LOCATOR	INSERTION TOOL	EXTRACTION TOOL
18	18-22 AWG	ZP-4018-36L	-	-	ZP-4118-36L	11.5mm	M300-25A	TP682-1	-	-	-	-	TP-201047-1	TP-201459 (pin) TP-201011-3 (skt)
16	16-20 AWG	ZP-4016-36L	-	ZP-4016-37L	ZP-4116-36L	14.6mm	M300-25A	TP682-1	-	-	-	-	TP-201048-1	TP-201459 (pin) TP-201010-3 (skt)
12	12-16 AWG	ZP-4012-36L	ZP-4012-36LB	ZP-4012-37L3	ZP-4112-36L	15.5mm	M300-25A	"TP683-1 (pin) TP684-1 (skt)"	400-B-1	414DA-12N	4150	4151	TP-201049-1	TP-201459 (pin) TP-201009-3 (skt)
10	10-14 AWG	ZP-4010-36L	-	ZP-4010-37L2	ZP-4110-36L	17.1mm	M300-25A	TP684-1	400-B-1	414DA-10N	4152	-	TP-201046-1	TP-201459 (pin) TP-201008-3 (skt)
8	8-10 AWG	ZP-4008-36L	-	-	ZP-4108-36L	21.0mm	-	-	400-B-1	414DA-8N	4154	-	TP-201007-A TP-201007-B	Contact us
4	4-6 AWG	ZP-4004-36L	-	-	ZP-4104-36L	23.0mm	-	-	400-B-1	414DA-4N	4156	-	TP-201033-A TP-201033-B	Contact us
1/0	1/0-2 AWG	-	ZP-4000-66LB	-	ZP-4100-66L	31.0mm	-	-	400-B-1	414DA-1/0PN 414DA-2PN	-	4158	-	Contact us
4/0	4/0-2/0 AWG	-	ZP-4041-76LB	-	ZP-4141-76L	31.6mm	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us
313 MCM	313 MCM	-	RIG-C24-313PN	-	RIG-C24-313SN	33.5mm	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us
373 MCM	373 MCM	-	RIG-C24-373PN	-	RIG-C24-373SN	33.5mm	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us
500 MCM	500-535 MCM	-	P-206053-CP	-	P-206053-CS	33.5mm	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us
535 MCM	535 MCM	-	RIG-C24-535PN	-	RIG-C24-535SN	33.5mm	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us
646 MCM	646-777 MCM	-	RIG-C24-386PN	-	RIG-C24-386SN	33.5mm	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us	Contact us

MOD III CRIMP CONTACTS & TOOLING

CONTACT SIZE	CRIMP WIRE RANGE	PIN	"C" PIN*	GROUND PIN	SOCKET	WIRE STRIP LENGTH	HAND CRIMP TOOL	LOCATOR	POWER CRIMP TOOL	POWER CRIMP DIE	POWER CRIMP LOCATOR	"C" PIN LOCATOR	INSERTION TOOL	EXTRACTION TOOL
18	18-22 AWG	ZP-4018-50L	-	-	ZP-4108-50L	11.5mm	M300-25A	TP682-1	-	-	-	-	Not required	TP-201315-18
16	16-20 AWG	ZP-4016-50L	-	-	ZP-4106-50L	14.6mm	M300-25A	TP682-1	-	-	-	-	Not required	TP-201315-16
12	12-16 AWG	ZP-4012-50L	ZP-4012-50LB	ZP-4012-52LK	ZP-4102-50L	15.5mm	M300-25A	TP684-1 (skt) TP683-1 (pin)	400-B-1	414DA-12N	4002-3	4002-3	Not required	TP-201315-12
10	10-14 AWG	ZP-4010-50L		ZP-4010-52LK	ZP-4100-50L	17.1mm	M300-25A	TP684-1	400-B-1	414DA-10N	4003-3	4003-3	Not required	TP-201315-10
8	8-10 AWG	ZP-4008-50L	ZP-4008-50LB		ZP-4108-50L	21.0mm	-	-	400-B-1	414DA-8N	4004-3	4004-3	Not required	TP-201315-08
4	4-6 AWG	ZP-4004-50L		ZP-4004-52LK	ZP-4104-50L	23.0mm	-	-	400-B-1	414DA-4N	4005-3	4005-3	Not required	TP-201315-04
1/0	1/0-2 AWG	-	ZP-4000-50LB	ZP-4800-52LK	ZP-4100-50L	31.0mm	-	-	400-B-1	414DA-1/0PN 414DA-2PN	-	4006-3	Not required	TP-201260-00

* "C" pins are used in C length inserts and are 1/2 in. longer than standard
Thermocouple contacts for Mod II size 16 (crimp) - contact us.