



MIL-DTL-26482 SERIES I
CONNECTORS

ATP DEFENSE

© 2025

AS 9100

Quality System

TECHNICAL SPECIFICATION

MATERIAL AND FINISHES

Shell	Aluminum alloy
Plating	Olive drab cadmium over electroless nickel
Contacts	Copper alloy (Gold over nickel plated)
Insert	Polychloroprene
Grommets and Seals	Polychloroprene

MECHANICAL

Durability	500 cycles
Vibration resistance	15g at 10-2000Hz
Shock resistance	50g, 11ms

ELECTRICAL

Insulation resistance	≥500MΩ
Current rating	#20 Contacts - 7.5A #16 Contacts - 13A
Current resistance	#20 Contacts ≥ 4mΩ #16 Contacts ≥ 3mΩ
Dielectric withstanding voltage At standard pressure	1500 Vrms between size 20 Contacts (Service 1) 2300 Vrms between size 16 Contacts (Service 2)
At reduce pressure (10m bar)	200 Vrms between size 20 Contacts (Service 1) 300 Vrms between size 16 Contacts (Service 2)

ENVIRONMENTAL / CLIMATE

Operating temperature	-55°C TO 125°C
Salt spray	48 Hours
Sealing	Air leakage ≤ 16cm ³ /hr at 2 bar differential pressure
Fluid resistance	Hydraulic fluids Lubricating oils



ORDERING INFORMATION

	MS	3116	E	20	- 41	S	W
BASIC SERIES							
PRODUCT SERIES (TABLE 1)							
PRODUCT CLASS (TABLE 2)							
SHELL SIZE 8, 10, 12, 14, 16, 18, 20, 22 & 24							
CONTACT LAYOUT <i>"see page 3-5"</i>							
CONTACT TYPE (TABLE 3)							
ORIENTATION (TABLE 4)							

PRODUCT SERIES (TABLE-1)

CODE	DESCRIPTION	
3110	Wall Mounting Receptacle	<i>"see page 8-9"</i>
3111	Cable Connecting Receptacle	<i>"see page 10-11"</i>
3112	Box Mounting Receptacle	<i>"see page 12"</i>
3114	Jam Nut Receptacle	<i>"see page 13-14"</i>
3116	Straight Plug	<i>"see page 15-16"</i>

PRODUCT CLASS (TABLE-2)

CLASS	DESCRIPTION
E	Environmentally Sealed
F	Environmentally Sealed with Cable Clamp
J	Environmentally Sealed Cable Gland Seal with Cable Clamp
P	Potting Cup

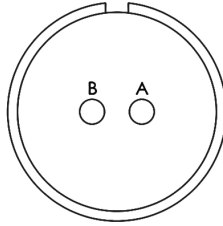
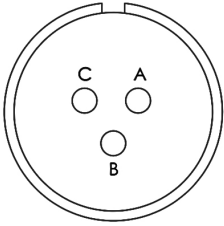
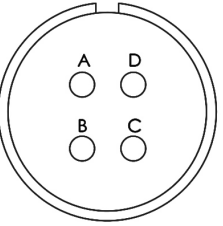
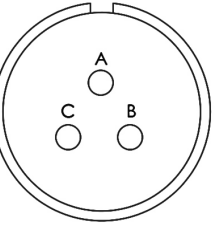
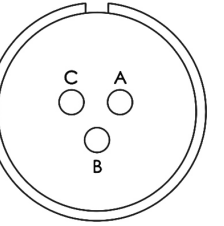
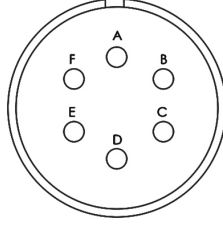
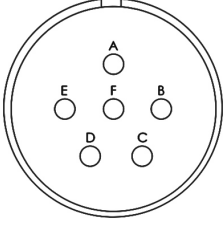
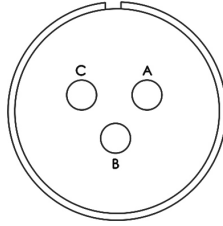
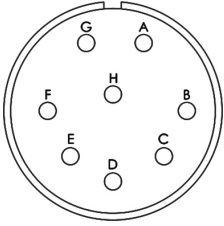
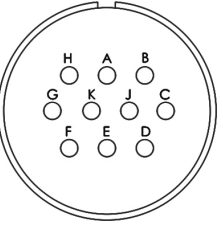
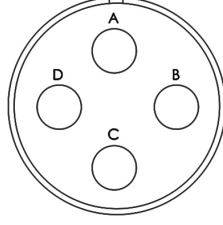
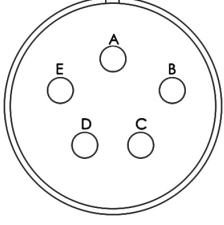
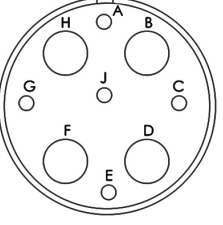
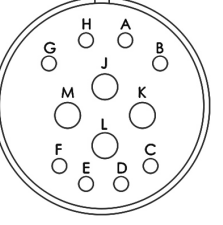
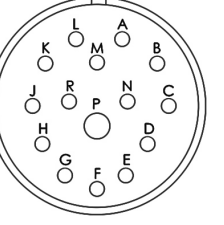
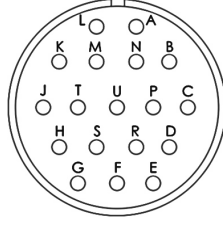
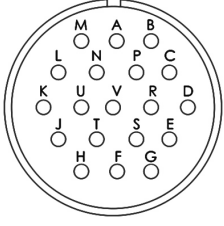
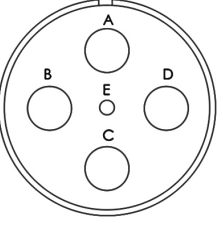
CONTACT TYPE (TABLE-3)

CODE	DESCRIPTION
P	Solder Contact - Male
S	Solder Contact - Female

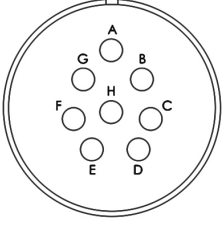
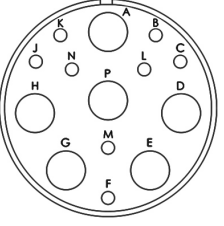
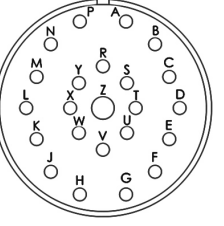
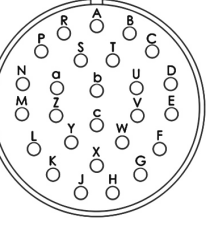
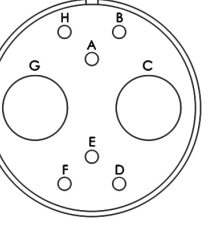
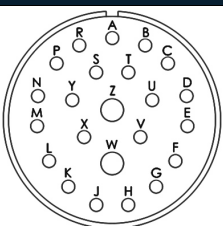
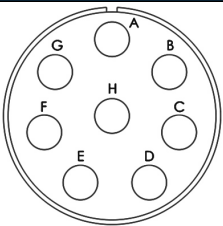
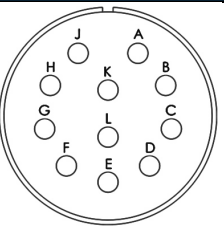
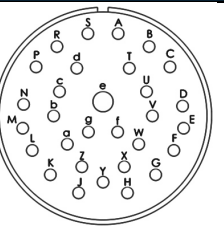
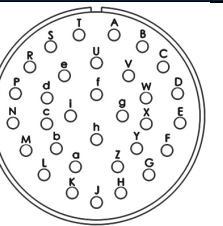
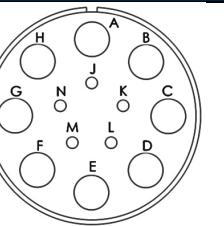
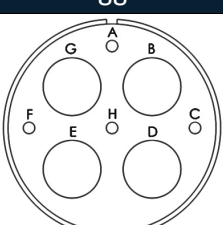
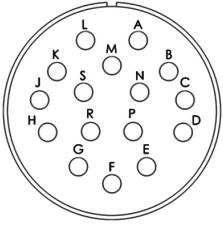
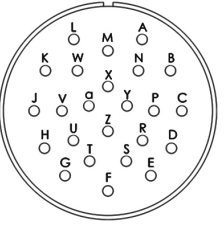
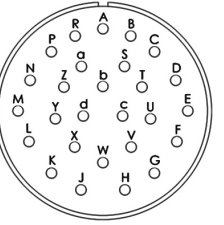
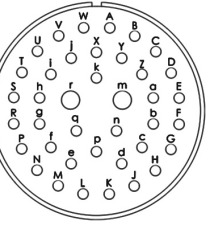
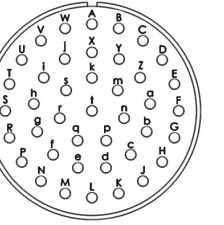
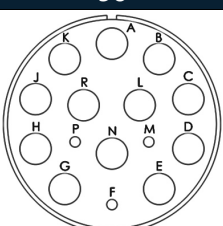
ORIENTATION (TABLE-4) *"see page 6-7"*

CODE	DESCRIPTION
OMIT	NORMAL
W, X, Y, Z	ALTERNATIVE

CONTACT LAYOUT "Viewed from front face of male insulator"

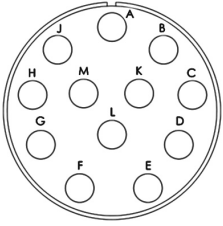
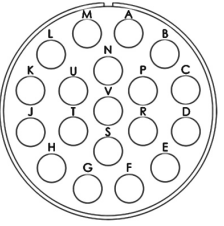
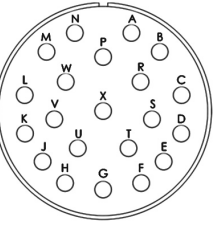
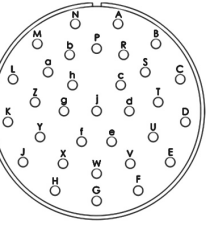
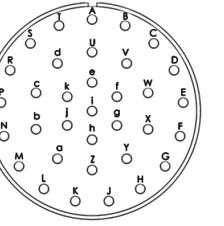
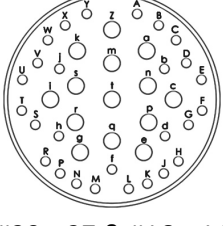
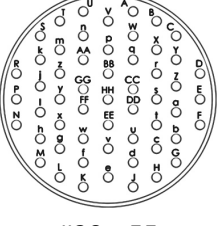
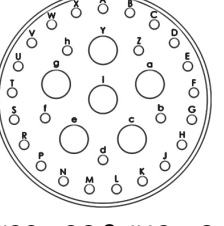
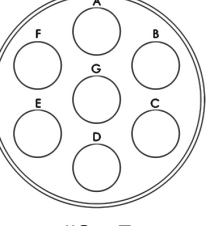
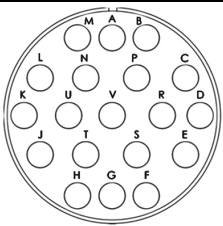
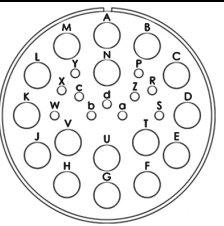
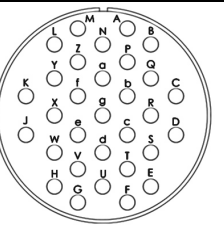
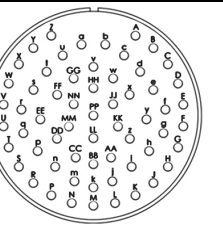
SHELL SIZE	8	2	3	4	33	98	
							
		#20 x 2	#20 x 3	#20 x 4	#20 x 3	#20 x 3	
SHELL SIZE	10	6	98				
							
		#20 x 6	#20 x 6				
SHELL SIZE	12	3	8	10			
							
		#16 x 3	#20 x 8	#20 x 10			
SHELL SIZE	14	4	5	9	12	15	
							
		#12 x 4	#16 x 5	#20 x 5 & #12 x 4	#16 x 4 & #20 x 8	#16 x 1 & #20 x 14	
			18	19	22		
							
		#20 x 18	#20 x 19	#12 x 4 & #20 x 1			

CONTACT LAYOUT "Viewed from front face of male insulator"

SHELL SIZE 16	8	14	23	26	95
	 #16 x 8	 #20 x 8 & #12 x 6	 #16 x 1 & #20 x 22	 #20 x 26	 #20 x 6 & #8 x 2
	99				
	 #20 x 21 & #16 x 2				
SHELL SIZE 18	8	11	30	32	85
	 #12 x 8	 #16 x 11	 #16 x 1 & #20 x 29	 #20 x 32	 #20 x 5 & #12 x 8
	88				
	 #20 x 4 & #8 x 4				
SHELL SIZE 20	16	24	27	39	41
	 #16 x 16	 #20 x 24	 #20 x 27	 #20 x 37 & #16 x 2	 #20 x 41
	90				
	 #20 x 3 & #12 x 12				

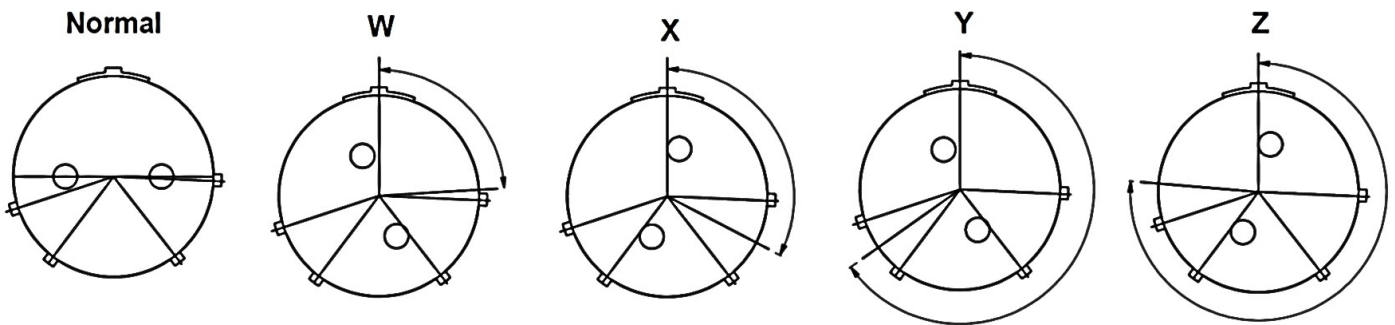


CONTACT LAYOUT "Viewed from front face of male insulator"

SHELL SIZE	22	12	19	21	32	34	
							
		#12 x 12	#12 x 19	#16 x 21	#20 x 32	#20 x 34	
		41	55	95	96		
							
	#20 x 27 & #16 x 14	#20 x 55	#20 x 26 & #12 x 6	#8 x 7			
	24	19	27	31	61		
							
#12 x 19		#20 x 11 & #12 x 16	#16 x 31	#20 x 61			

ORIENTATION "Viewed from front face of male insulator"

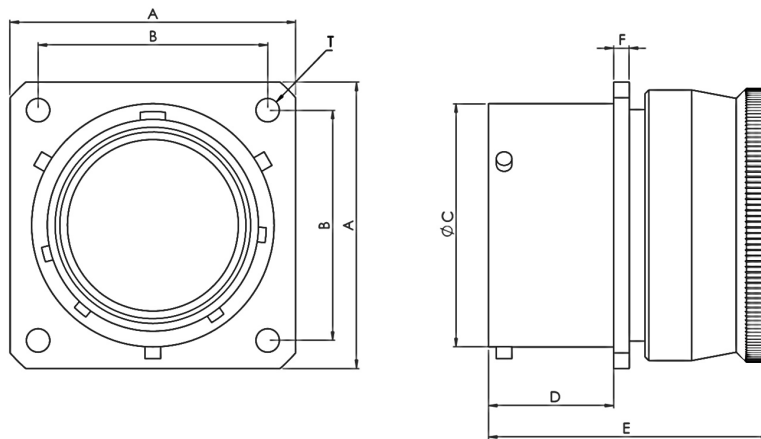
Insulator rotated inside metal body.



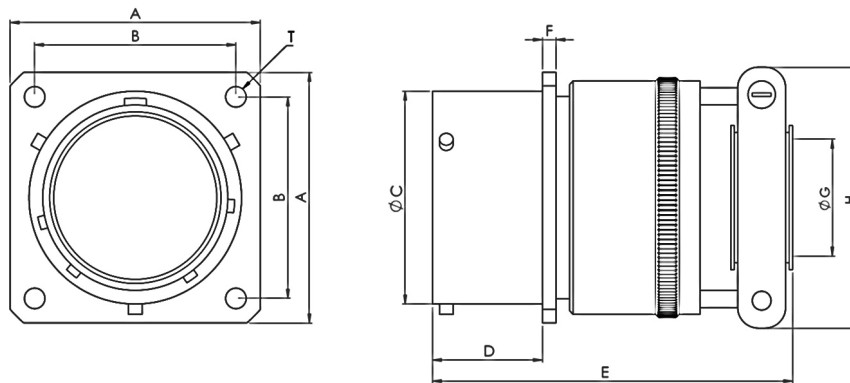
Shell	Service Rating	Layout	Angles in degree			
			W	X	Y	Z
8	I	2	58	122	-	-
	I	3	60	210	-	-
	I	4	45	-	-	-
	I	33	90	-	-	-
	I	98	-	-	-	-
10	I	6	90	-	-	-
	I	98	90	180	240	270
12	II	3	-	-	180	-
	I	8	90	112	203	292
	I	10	60	155	270	295
14	I	4	45	-	-	-
	II	5	40	92	184	273
	I	9	15	90	180	240
	I	12	43	90	-	-
	I	15	17	110	155	234
	I	18	15	90	180	270
	I	19	30	165	315	-
	I	22	45	-	-	-
16	II	8	54	152	180	331
	I	14	25	78	180	240
	I	23	158	270	-	-
	I	26	60	-	275	338
	I	95	25	90	153	-
	I	99	66	156	223	340

ORIENTATION

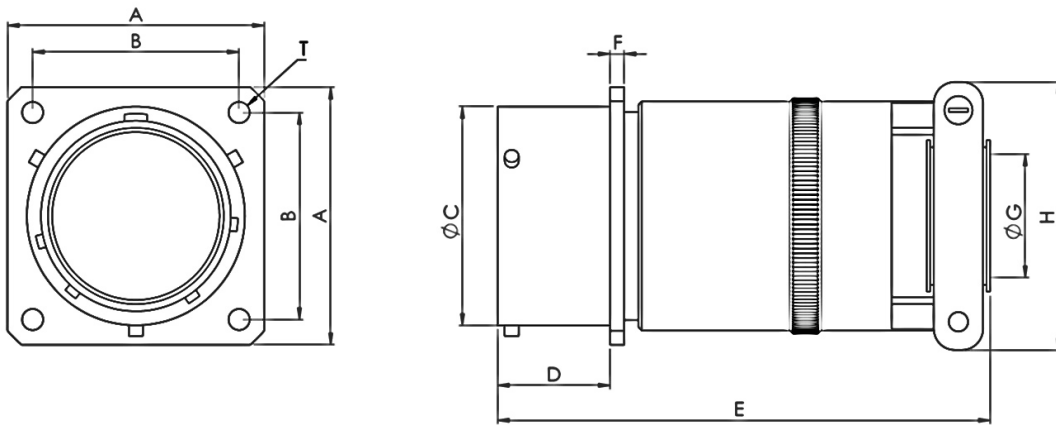
Shell	Service Rating	Layout	Angles in degree			
			W	X	Y	Z
18	I	8	180	-	-	-
	II	11	62	119	241	340
	I	30	180	193	285	350
	I	32	85	138	222	265
	I	85	45	90	180	240
	I	88	12	45	168	202
20	II	16	238	318	333	347
	I	24	70	145	215	290
	I	27	72	144	216	288
	I	39	83	144	252	333
	I	41	45	126	225	-
	I	90	18	60	240	270
22	I	12	-	-	-	-
	I	19	15	90	225	308
	II	21	16	135	175	349
	I	32	72	145	215	288
	I	34	62	142	218	298
	I	41	39	135	264	-
	I	55	30	142	226	314
	I	95	26	180	266	-
	I	96	19	41	-	-
24	I	19	30	165	315	-
	I	27	45	110	140	225
	I	31	90	225	255	-
	I	61	90	180	270	324

WALL MOUNTING RECEPTACLE: MS3110 TYPE E


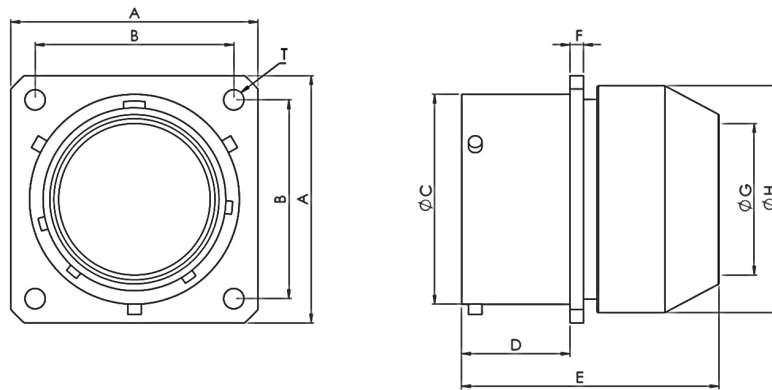
SHELL SIZE	A Max.	B	ØC +0,02/-0,12	D +0,25	E Max	F Max	T ±0,12
8	20,62	15,09	12,01	10,95	32,16	1,57	3,05
10	23,83	18,26	14,99	10,95	32,16	1,57	3,05
12	26,19	20,62	19,05	10,95	32,16	1,57	3,05
14	28,58	23,01	22,23	10,95	32,16	1,57	3,05
16	30,96	24,61	25,40	10,95	32,16	1,57	3,05
18	33,32	26,97	28,58	10,95	32,16	1,57	3,05
20	36,53	29,36	31,75	14,12	38,51	2,39	3,05
22	39,67	31,75	34,93	14,12	38,51	2,39	3,05
24	42,88	34,93	38,10	14,96	40,08	2,39	3,73

WALL MOUNTING RECEPTACLE: MS3110 TYPE F


SHELL SIZE	A Max.	B	ØC +0,02/-0,12	D +0,25	E Max.	F Max.	ØG Max.	H Max.	T ±0,12
8	20,62	15,09	12,01	10,95	48,82	1,57	3,18	20,62	3,05
10	23,83	18,26	14,99	10,95	48,82	1,57	4,78	22,23	3,05
12	26,19	20,62	19,05	10,95	48,82	1,57	7,92	25,40	3,05
14	28,58	23,01	22,23	10,95	48,82	1,57	9,53	28,58	3,05
16	30,96	24,61	25,40	10,95	51,99	1,57	12,70	30,18	3,05
18	33,32	26,97	28,58	10,95	52,78	1,57	15,88	36,53	3,05
20	36,53	29,36	31,75	14,12	59,54	2,39	15,88	36,53	3,05
22	39,67	31,75	34,93	14,12	59,54	2,39	19,05	41,28	3,05
24	42,88	34,93	38,10	14,96	61,11	2,39	20,32	43,66	3,73

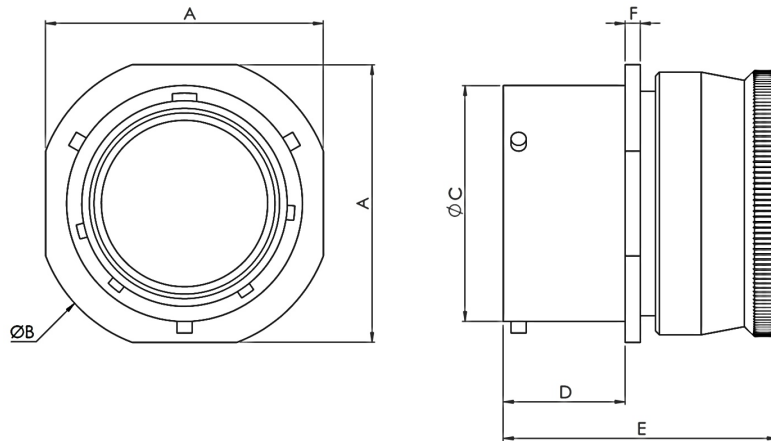
WALL MOUNTING RECEPTACLE: MS3110 TYPE J


SHELL SIZE	A Max.	B	ØC +0,02/-0,12	D +0,25	E Max.	F Max.	ØG Max.	H Max.	T ±0,12
8	20,62	15,09	12,01	10,95	57,68	1,57	4,27	20,62	3,05
10	23,83	18,26	14,99	10,95	57,68	1,57	5,21	22,23	3,05
12	26,19	20,62	19,05	10,95	61,24	1,57	8,59	25,40	3,05
14	28,58	23,01	22,23	10,95	66,01	1,57	10,57	28,58	3,05
16	30,96	24,61	25,40	10,95	74,75	1,57	13,97	30,18	3,05
18	33,32	26,97	28,58	10,95	80,57	1,57	15,24	36,53	3,05
20	36,53	29,36	31,75	14,12	91,69	2,39	16,13	36,53	3,05
22	39,67	31,75	34,93	14,12	95,66	2,39	17,02	41,28	3,05
24	42,88	34,93	38,10	14,96	101,22	2,39	18,80	43,66	3,73

WALL MOUNTING RECEPTACLE: MS3110 TYPE P


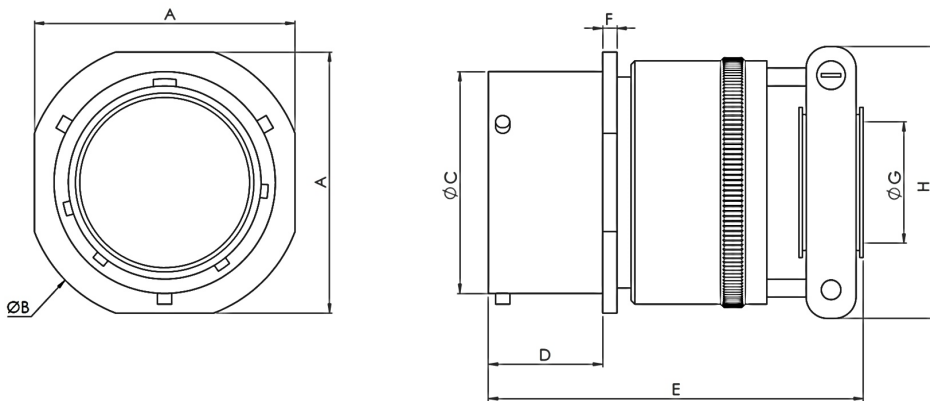
SHELL SIZE	A Max.	B	ØC +0,02/-0,12	D +0,25	E Max.	F Max.	ØG Min.	ØH Max.	T ±0,12
8	20,62	15,09	12,01	10,95	36,53	1,57	8,05	15,44	3,05
10	23,83	18,26	14,99	10,95	36,53	1,57	11,02	18,64	3,05
12	26,19	20,62	19,05	10,95	36,53	1,57	13,92	21,79	3,05
14	28,58	23,01	22,23	10,95	36,53	1,57	17,09	24,99	3,05
16	30,96	24,61	25,40	10,95	36,53	1,57	20,27	28,19	3,05
18	33,32	26,97	28,58	10,95	36,53	1,57	22,83	31,34	3,05
20	36,53	29,36	31,75	14,12	42,06	2,39	26,01	34,54	3,05
22	39,67	31,75	34,93	14,12	42,06	2,39	29,18	37,69	3,05
24	42,88	34,93	38,10	14,96	43,61	2,39	32,36	40,89	3,73

CABLE CONNECTING RECEPTACLE: MS3111 TYPE E

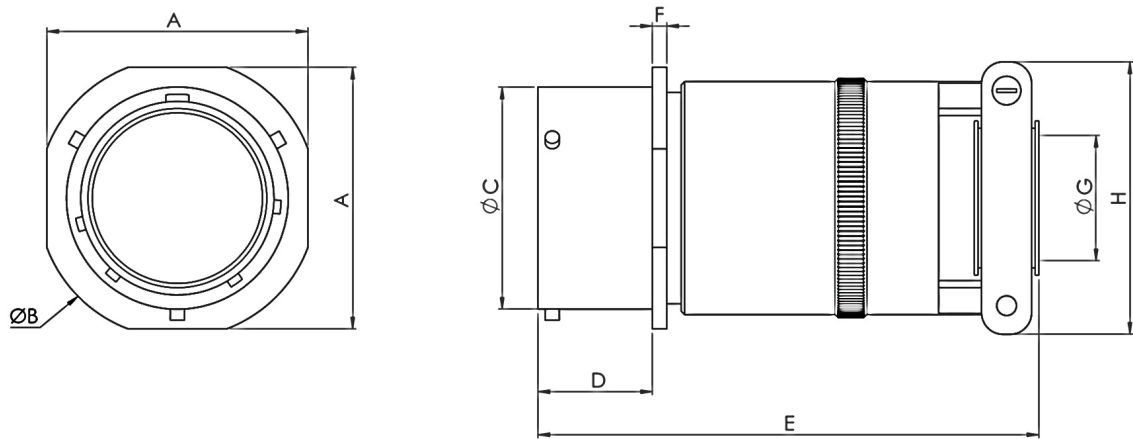


SHELL SIZE	A ±0,5	ØB ±0,5	ØC +0,02/-0,12	D +0,4	E Max	F Max
8	20,62	23,83	12,01	10,16	32,16	2,39
10	23,83	26,97	14,99	10,16	32,16	2,39
12	26,19	29,36	19,05	10,16	32,16	2,39
14	28,58	31,75	22,23	10,16	32,16	2,39
16	30,96	34,14	25,40	10,16	32,16	2,39
18	33,32	36,53	28,58	10,16	32,16	2,39
20	36,53	39,67	31,75	13,59	38,51	2,92
22	39,67	42,88	34,93	13,59	38,51	2,92
24	42,88	46,02	38,10	14,43	40,08	2,92

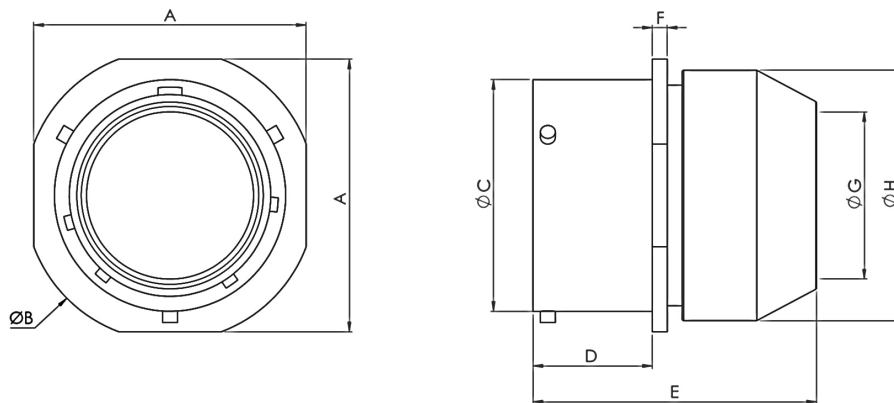
CABLE CONNECTING RECEPTACLE: MS3111 TYPE F



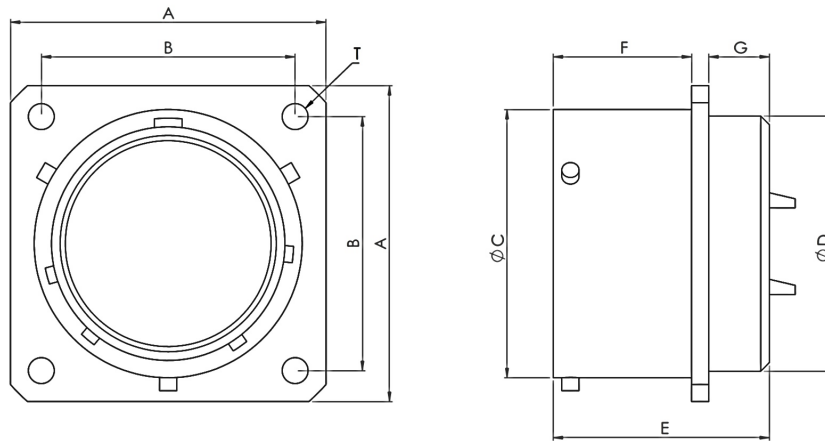
SHELL SIZE	A ±0,5	ØB ±0,5	ØC +0,02/-0,12	D +0,4	E Max.	F Max.	ØG Max.	H Max.
8	20,62	23,83	12,01	10,16	48,82	2,39	3,18	20,62
10	23,83	26,97	14,99	10,16	48,82	2,39	4,78	22,23
12	26,19	29,36	19,05	10,16	48,82	2,39	7,92	25,40
14	28,58	31,75	22,23	10,16	48,82	2,39	9,53	28,58
16	30,96	34,14	25,40	10,16	51,99	2,39	12,70	30,18
18	33,32	36,53	28,58	10,16	52,78	2,39	15,88	36,53
20	36,53	39,67	31,75	13,59	59,54	2,92	15,88	36,53
22	39,67	42,88	34,93	13,59	59,54	2,92	19,05	41,28
24	42,88	46,02	38,10	14,43	61,11	2,92	20,32	43,66

CABLE CONNECTING RECEPTACLE: MS3111 TYPE J


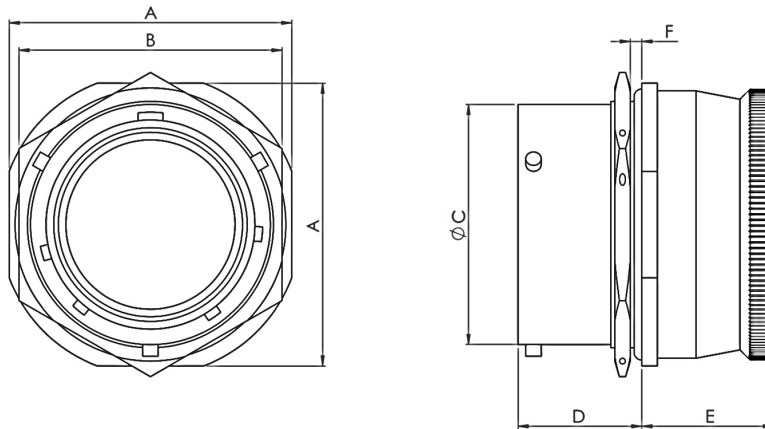
SHELL SIZE	A ±0,5	ØB ±0,5	ØC +0,02/-0,12	D +0,4	E Max.	F Max.	ØG Max.	H Max.
8	20,62	23,83	12,01	10,16	57,68	2,39	4,27	20,62
10	23,83	26,97	14,99	10,16	57,68	2,39	5,21	22,23
12	26,19	29,36	19,05	10,16	61,24	2,39	8,59	25,40
14	28,58	31,75	22,23	10,16	66,01	2,39	10,57	28,58
16	30,96	34,14	25,40	10,16	74,75	2,39	13,97	30,18
18	33,32	36,53	28,58	10,16	80,57	2,39	15,24	36,53
20	36,53	39,67	31,75	13,59	91,69	2,92	16,13	36,53
22	39,67	42,88	34,93	13,59	95,66	2,92	17,02	41,28
24	42,88	46,02	38,10	14,43	101,22	2,92	18,80	43,66

CABLE CONNECTING RECEPTACLE: MS3111 TYPE P


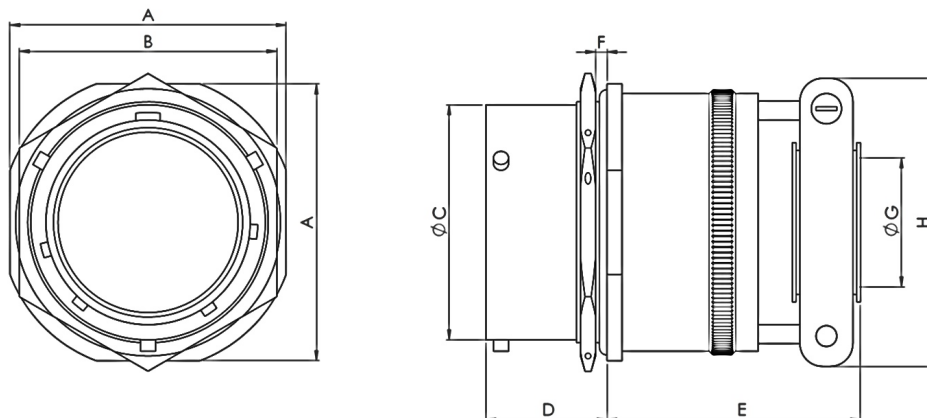
SHELL SIZE	A ±0,5	ØB ±0,5	ØC +0,02/-0,12	D +0,4	E Max.	F Max.	ØG Min.	ØH Max.
8	20,62	23,83	12,01	10,16	36,53	2,39	8,05	15,44
10	23,83	26,97	14,99	10,16	36,53	2,39	11,02	18,64
12	26,19	29,36	19,05	10,16	36,53	2,39	13,92	21,79
14	28,58	31,75	22,23	10,16	36,53	2,39	17,09	24,99
16	30,96	34,14	25,40	10,16	36,53	2,39	20,27	28,19
18	33,32	36,53	28,58	10,16	36,53	2,39	22,83	31,34
20	36,53	39,67	31,75	13,59	42,06	2,92	26,01	34,54
22	39,67	42,88	34,93	13,59	42,06	2,92	29,18	37,69
24	42,88	46,02	38,10	14,43	43,61	2,92	32,36	40,89

BOX MOUNTING RECEPTACLE: MS3112


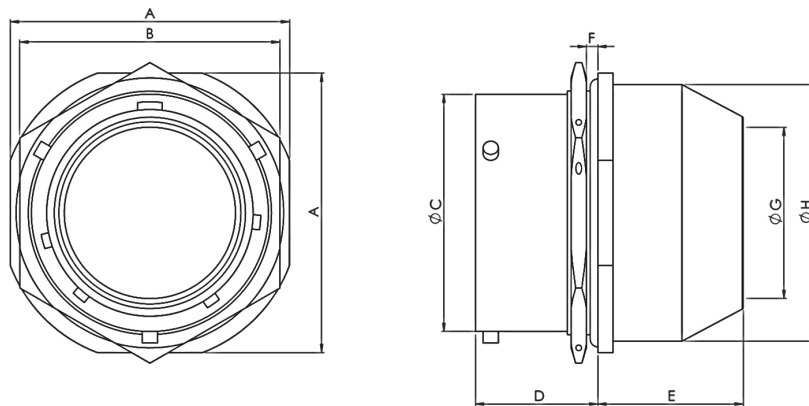
SHELL SIZE	A	B	ØC +0,02/-0,12	ØD Dia. Max.	E Max.	F +0,25	G	T ±0,12
8	20,62	15,09	12,01	11,40	20,96	10,95	8,43	3,05
10	23,83	18,26	14,99	14,55	20,96	10,95	8,43	3,05
12	26,19	20,62	19,05	17,75	20,96	10,95	8,43	3,05
14	28,58	23,01	22,23	20,90	20,96	10,95	8,43	3,05
16	30,96	24,61	25,40	24,10	20,96	10,95	8,43	3,05
18	33,32	26,97	28,58	27,25	20,96	10,95	8,43	3,05
20	36,53	29,36	31,75	30,45	27,33	14,12	10,82	3,05
22	39,67	31,75	34,93	33,60	27,33	14,12	10,82	3,05
24	42,88	34,93	38,10	36,80	28,17	14,96	10,82	3,73

JAM NUT RECEPTACLE: MS3114 TYPE E


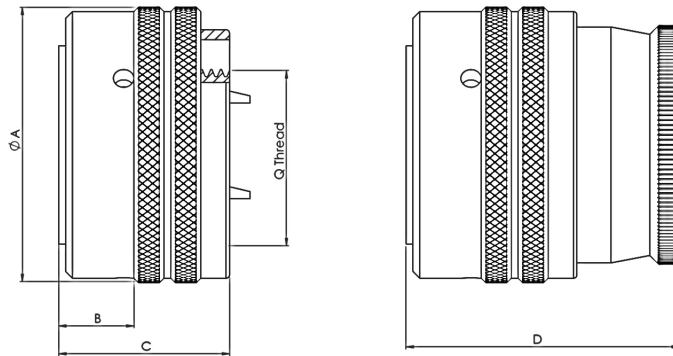
SHELL SIZE	A	B	ØC +0,02/-0,12	D	E	F Max.
8	23,83	19,05	12,01	17,68	26,14	3,18
10	26,97	22,23	14,99	17,68	26,14	3,18
12	31,75	26,97	19,05	17,68	26,14	3,18
14	34,93	30,18	22,23	17,68	26,14	3,18
16	38,10	33,32	25,40	17,68	29,49	3,18
18	41,28	36,53	28,58	17,68	29,49	3,18
20	46,02	39,67	31,75	22,45	31,09	6,35
22	49,23	42,88	34,93	22,45	31,09	6,35
24	52,37	46,13	38,10	23,29	33,53	6,35

JAM NUT RECEPTACLE: MS3114 TYPE F


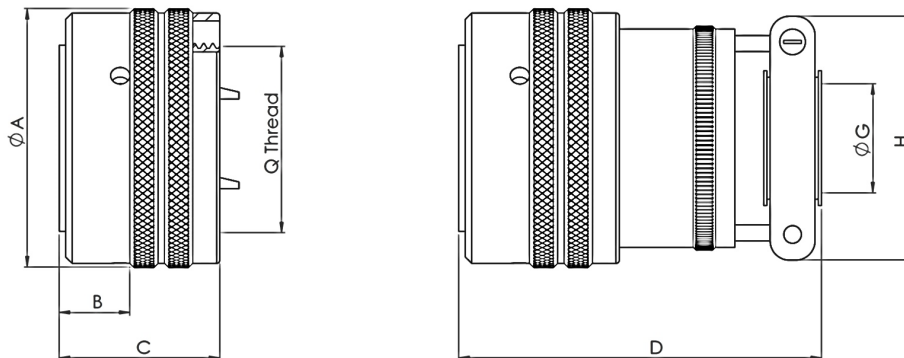
SHELL SIZE	A	B	ØC +0,02/-0,12	D	E	F Max.	ØG	H
8	23,83	19,05	12,01	17,68	26,97	3,18	3,18	19,84
10	26,97	22,23	14,99	17,68	26,97	3,18	4,78	21,44
12	31,75	26,97	19,05	17,68	26,97	3,18	7,92	24,61
14	34,93	30,18	22,23	17,68	26,97	3,18	9,53	27,79
16	38,10	33,32	25,40	17,68	30,18	3,18	12,70	29,36
18	41,28	36,53	28,58	17,68	30,18	3,18	15,88	35,71
20	46,02	39,67	31,75	22,45	31,75	6,35	15,88	35,71
22	49,23	42,88	34,93	22,45	31,75	6,35	19,05	40,49
24	52,37	46,13	38,10	23,29	31,75	6,35	20,32	40,49

JAM NUT RECEPTACLE: MS3114 TYPE P


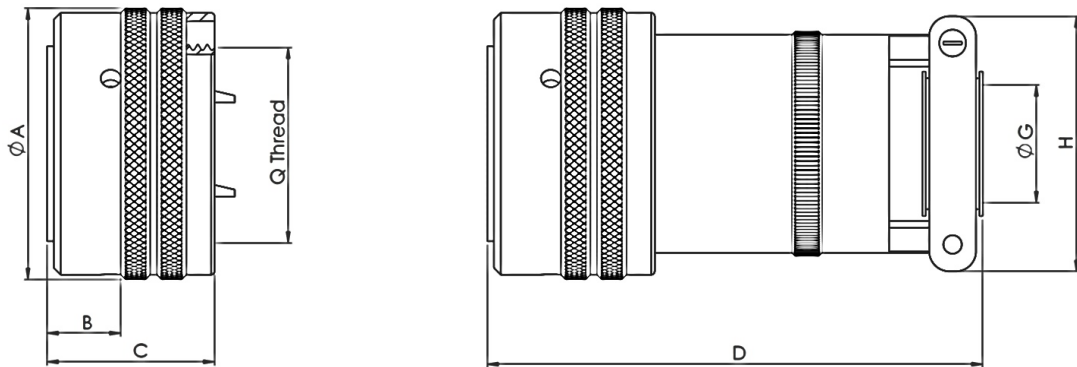
SHELL SIZE	A	B	$\varnothing C$ +0,02/-0,12	D	E +0,2/-0,65	F Max.	$\varnothing G$ Max.	H
8	23,83	19,05	12,01	17,68	15,06	3,18	8,31	15,44
10	26,97	22,23	14,99	17,68	15,06	3,18	11,28	18,64
12	31,75	26,97	19,05	17,68	15,06	3,18	14,17	21,79
14	34,93	30,18	22,23	17,68	15,06	3,18	17,35	24,99
16	38,10	33,32	25,40	17,68	15,06	3,18	20,52	28,19
18	41,28	36,53	28,58	17,68	15,06	3,18	23,09	31,34
20	46,02	39,67	31,75	22,45	18,24	6,35	26,26	34,54
22	49,23	42,88	34,93	22,45	18,24	6,35	29,44	37,69
24	52,37	46,13	38,10	23,29	18,24	6,35	32,61	40,89

STRAIGHT PLUG: MS3116 TYPE E


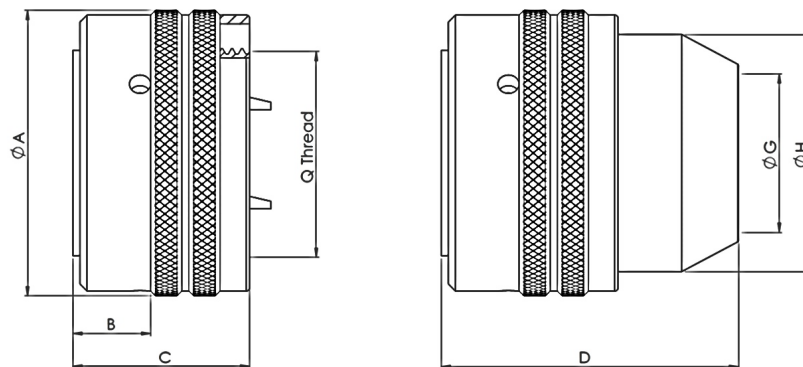
SHELL SIZE	ØA Max.	B	C Max.	Q Thread	D Max.
8	19,05	8,97	23,01	.4375-28 UNEF	32,16
10	21,82	8,97	23,01	.5625-24 NEF	32,16
12	25,73	8,97	23,01	.6875-24 NEF	32,16
14	29,36	8,97	23,01	.8125-20 UNEF	32,16
16	32,54	8,97	23,01	.9375-20 UNEF	32,16
18	33,50	8,97	23,01	1.0625-18 NEF	32,16
20	38,89	10,54	26,97	1.1875-18 NEF	36,53
22	42,06	10,54	26,97	1.3125-18 NEF	36,53
24	45,11	10,54	28,58	1.4375-18 NEF	38,10

STRAIGHT PLUG: MS3116 TYPE F


SHELL SIZE	ØA Max.	B	C Max.	Q Thread	D Max.	G ±0,25	H Max.
8	19,05	8,97	23,01	.4375-28 UNEF	48,41	3,18	20,62
10	21,82	8,97	23,01	.5625-24 NEF	48,41	4,78	22,23
12	25,73	8,97	23,01	.6875-24 NEF	48,41	7,92	25,40
14	29,36	8,97	23,01	.8125-20 UNEF	48,41	9,53	28,58
16	32,54	8,97	23,01	.9375-20 UNEF	51,99	12,70	30,18
18	33,50	8,97	23,01	1.0625-18 NEF	52,78	15,88	36,53
20	38,89	10,54	26,97	1.1875-18 NEF	57,15	15,88	36,53
22	42,06	10,54	26,97	1.3125-18 NEF	57,15	19,05	41,28
24	45,11	10,54	28,58	1.4375-18 NEF	58,72	20,32	44,45

STRAIGHT PLUG: MS3116 TYPE J


SHELL SIZE	ØA Max.	B	C Max.	Q Thread	D Max.	G	H Max.
8	19,05	8,97	23,01	.4375-28 UNEF	57,68	4,27	20,62
10	21,82	8,97	23,01	.5625-24 NEF	57,68	5,21	22,23
12	25,73	8,97	23,01	.6875-24 NEF	61,24	8,59	25,40
14	29,36	8,97	23,01	.8125-20 UNEF	66,01	10,57	28,58
16	32,54	8,97	23,01	.9375-20 UNEF	74,75	13,97	30,18
18	33,50	8,97	23,01	1.0625-18 NEF	80,57	15,24	36,53
20	38,89	10,54	26,97	1.1875-18 NEF	91,69	16,13	36,53
22	42,06	10,54	26,97	1.3125-18 NEF	95,66	17,02	41,28
24	45,11	10,54	28,58	1.4375-18 NEF	101,22	18,80	44,45

STRAIGHT PLUG: MS3116 TYPE P


SHELL SIZE	ØA Max.	B	C Max.	Q Thread	D Max.	G Min.	H Max.
8	19,05	8,97	23,01	.4375-28 UNEF	38,76	8,05	15,44
10	21,82	8,97	23,01	.5625-24 NEF	38,76	11,02	18,64
12	25,73	8,97	23,01	.6875-24 NEF	38,76	13,92	21,79
14	29,36	8,97	23,01	.8125-20 UNEF	38,76	17,09	24,99
16	32,54	8,97	23,01	.9375-20 UNEF	38,76	20,27	28,19
18	33,50	8,97	23,01	1.0625-18 NEF	38,76	22,83	31,34
20	38,89	10,54	26,97	1.1875-18 NEF	39,27	26,01	34,54
22	42,06	10,54	26,97	1.3125-18 NEF	39,27	29,18	37,69
24	45,11	10,54	28,58	1.4375-18 NEF	42,06	32,36	40,89



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