

8533 Series



Applications

Engine area/sensors in harsh environments, railways (brake system), for all purposes in severe climatical environment and high temperature.

Standards

NFL 54143 - EN 2997



Description

- Screw coupling
- Interchangeable and intermateable with MIL-C 83723 Series III T type
- Plug with self locking system
- High temperature connector
- High level shock and vibration
- Thermocouple contacts available except hermetic connectors.

Characteristics

Mechanical

- Shell : aluminum alloy (class R-W-A) stainless steel (class K, E, Y and YE)
- Plating : nickel (class R)
 - olive green cadmium (class W)
 - black anodized (class A)
 - passivated (class K, E, Y and YE)
- Insulator : thermoset
- Grommet and seal : silicone elastomer
- Contact : copper alloy
 - ferrous alloy (class Y and YE)
- Plating : gold over nickel
- Mechanical endurance :
 - 250 operations (class R and W)
 - 500 operations (class K, E, Y and YE)
- Shock : 300 g during 3 ms
- Vibration : random 5 Hz to 2000 Hz - 1 G²/Hz (2x8 hours)
- Contact retention :
 - size 20 : 90 N
 - size 16 : 111 N
 - size 12 : 133 N

Electrical

- Dielectric withstanding

Altitude	Service
At ground	1500 Vrms
15 000 m	600 Vrms
21 000 m	400 Vrms
33 000 m	200 Vrms

- Contact resistance : as per NFL 54143 and EN 2997
- Insulation resistance :
 - > 5000 MΩ at 500 Vdc
- Max current rating per contact :

size 20 : 7.5 A	size 20 : 5 A	} class Y and YE
size 16 : 13 A	size 16 : 10 A	
size 12 : 23 A	size 12 : 17 A	
- Electrical continuity :
 - 5 mΩ with RFI shielded
 - 60 mΩ without RFI shielded
- Shielding : to 100 MHz at 1 GHz
 - attenuation > 65 dB

Climatic

- Working temperature :
 - 65°C to 175°C (class W)
 - 65°C to 200°C (class R, A, K and Y)
 - 65°C to 260°C cyclic (class E and YE)
- Leakage : low pressure immersion - L54001 and interfacial sealing : pressure 2kPa
- Hermeticity : differential pressure of 1 bar (air helium) leakage is ≤ 0,36 mm³/hr
- Damp heat : as per NFL 54143 and EN 2997
 - 10 cycles of 24 hours
- Salt spray : 48 hours
 - (class R-K-E-Y and YE)
 - 500 hours (class W)
- Fire resistance : as per NFL 54143 and EN 2997 (class K and E)

Resistance to fluids

MIL-H 5606 - SKYDROL 500 B4 - LD4
JP5 - MIL-L 7870 A - MIL-L 23699
MIL-L 7808 - MIL-C 25769 - MIL-A 8243

Ordering information

Environmental connectors

basic series	8533 - 0 R S 14-15 P N •				
shell type	0 - square flange receptacle 7 - jam nut receptacle 3 - plug with self locking and RFI shielding 4 - plug with self locking				
class	W - 175°C (aluminum version with olive green cadmium plating) R - 200°C (aluminum version with nickel plating) A - 200°C (aluminum version with black anodized plating) K - 200°C (stainless steel version) E - 260°C (stainless steel version)				
	S - with 360° teeth				
shell size	- 08-10-12-14-16-18-20-22-24-26-28				
contact layouts	- see table p 5				
contact type	P - male S - female				
polarization	- N-6-7-8-9-Y - see p 6				
specification	without specification - connector supplied with standard contacts 08 - connector supplied with large barrel contacts L - connector supplied without contacts				

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Backshells

aluminum version

basic series		852 - 31	N	14
backshell type	31 - backnut 52 - straight cable clamp 51 - elbow cable clamp			
plating	N - nickel A - black anodized W - olive green cadmium			
shell size	- 08-10-12-14-16-18-20-22-24			

Backshells

stainless steel version

basic series		8527 - 01	14	•
backshell type	01 - backnut 02 - straight cable clamp			
shell size	- 08-10-12-14-16-18-20-22-24			
specification	A - obligatory suffix for backshell type 02 only			

NOTE : for others types and sizes backshells - See catalogue M 85049

Hermetic connectors

basic series		8533 - 1	Y	10 - 05	P	N
shell type	1 - solder fixing receptacle 2 - square flange receptacle 7 - jam nut receptacle					
class	Y - 200° YE - 260°					
shell size	- 08-10-12-14-16-18-20*-22-24*					
contact layouts	see table p 5					
contact type	P - male only					
polarization	see table p 6					

* Consult us

Protective caps

aluminum version

basic series		83723 - 21	R	14
cap type	21 - cap for receptacle 22 - cap for plug			
plating	R - nickel W - olive green cadmium A - black anodized			
shell size	- 08-10-12-14-16-18-20-22			

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Cross reference list

FCI Souriau	EN 2997 NFL 54143 (1)	AEROSPATIALE	ROLLS ROYCE	Description			
852-31 ••	-	ASN-E0455-01 •• N	-	Aluminum version	Backnut		
852-52N ••	-	ASN-E0455-02 •• N	-		Straight cable clamp		
852-51N ••	-	ASN-E0455-03 •• N	-		Elbow cable clamp		
8527-01 ••	-	ASN-E0199-01 •• K	-	Stainless steel version	Backnut		
8527-02 •• A	-	ASN-E0199-02 •• K	-		Straight cable clamp		
8526-1348	EN 3155-018 M 2020	-	-	Contact	Male	Standard size 20	
8526-1349	EN 3155-018 M 1616	NSA 938 151 PA 1600	-			Standard size 16	
8526-1350	EN 3155-018 M 1212	NSA 938 151 PA 1200	-			Standard size 12	
8522-2349A	EN 3155-018 M 2018	NSA 938 151 PA 2000	-			Large barrel size 20	
8522-6179A	EN 3155-018 M 1614	NSA 938 151 PA 1601	-			Large barrel size 16	
8526-4175	EN 3155-018 M 1618	NSA 938 151 PA 1602	-			Small barrel size 16	
8526-5041	EN 3155-018 M 1218	NSA 938 151 PA 1202	-			Small barrel size 12	
8526-1344	EN 3155-019 F 2020	-	-		Class 175° C and 200° C	Female	Standard size 20
8526-1346	EN 3155-019 F 1616	NSA 938 152 SA 1600	-				Standard size 16
8526-1347	EN 3155-019 F 1212	NSA 938 152 SA 1200	-				Standard size 12
8520-292	EN 3155-019 F 2018	NSA 938 152 SA 2000	-				Large barrel size 20
8522-6180A	EN 3155-019 F 1614	NSA 938 152 SA 1601	-				Large barrel size 16
8526-4176	EN 3155-019 F 1618	NSA 938 152 SA 1602	-				Small barrel size 16
8526-5591	EN 3155-019 F 1218	NSA 938 152 SA 1202	-				Small barrel size 12
8533-1000	EN 3155-004 M 2020	-	ESC30 P20 BC	Class 260° C	Male	Standard size 20	
8533-1004	EN 3155-004 M 1616	ASN-E 0445 FW 1600	ESC30 P16 BC			Standard size 16	
8533-1002	EN 3155-004 M 2018	ASN-E 0445 FW 2001	-			Large barrel size 20	
8533-1006	EN 3155-004 M 1614	ASN-E 0445 FW 1601	-			Large barrel size 16	
8533-1008	EN 3155-004 M 1618	ASN-E 0445 FW 1602	-		Small barrel size 16		
8533-1035	EN 3155-004 M 1212	ASN-E 0445 FW 1200	ESC30 P12 BC		Small barrel size 1		
8533-1019	EN 3155-044 M 2022	-	-		Double crimping size 20		
8533-1001	EN 3155-005 F 2020	-	ESC30 S20 BC		Class 260° C	Female	Standard size 20
8533-1005	EN 3155-005 F 1616	ASN-E 0446 DW 1600	ESC30 S16 BC	Standard size 16			
8533-1003	EN 3155-005 F 2018	ASN-E 0446 DW 2001	-	Large barrel size 20			
8533-1007	EN 3155-005 F 1614	ASN-E 0446 DW 1601	-	Large barrel size 16			
8533-1009	EN 3155-005 F 1618	ASN-E 0446 DW 1602	-	Small barrel size 16			
8533-1036	EN 3155-005 F 1212	ASN-E 0446 DW 1200	ESC30 S12 BC	Standard size 12			
8533-1018	EN 3155-045 F 2022	-	-	Double crimping size 20			

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Cross reference list

FCI Souriau	EN 2997 NFL 54143 (1)	AEROSPATIALE	BOEING BACC 63 CN/CM	BOEING BACC 63 BR/BT ⁽²⁾	ROLLS ROYCE	Description
8533-0RS ●●● P □ 08 ⁽³⁾	-	ASN-E0454RS ●●● P □	-	-	-	Square flange receptacle
8533-0WS ●●● P □ 08 ⁽³⁾	-	-	-	-	-	
8533-0RS ●●● P □	EN2997-RS0 ●●● M □	-	-	-	-	
8533-0WS ●●● P □	EN2997-WS0 ●●● M □	-	-	-	-	
8533-0RS ●●● P □ L	EN2997-RS0 ●●● A □	ASN-E0454RS ●●● P □ A	-	-	-	
8533-0WS ●●● P □ L	EN2997-WS0 ●●● A □	-	-	-	-	
8533-3RS ●●● P □ 08 ⁽³⁾	-	ASN-E0452RS ●●● P □	-	-	-	Plug with self locking and RFI shielded
8533-3WS ●●● P □ 08 ⁽³⁾	-	-	-	-	-	
8533-3RS ●●● P □	EN2997-RS6 ●●● M □	-	-	-	-	
8533-3WS ●●● P □	EN2997-WS6 ●●● A □	-	-	-	-	
8533-3RS ●●● P □ L	EN2997-RS6 ●●● A □	ASN-E0452RS ●●● P □ A	-	-	-	
8533-3WS ●●● P □ L	EN2997-WS6 ●●● A □	-	-	-	-	
8533-4RS ●●● P □ 08 ⁽³⁾	-	ASN-E0451R ●●● P □	-	-	-	plug with self locking
8533-4WS ●●● P □ 08 ⁽³⁾	-	-	-	-	-	
8533-4RS ●●● P □	EN2997-R6 ●●● M □	-	-	-	-	
8533-4WS ●●● P □	EN2997-W6 ●●● M □	-	-	-	-	
8533-4RS ●●● P □ L	EN2997-R6 ●●● A □	ASN-E0451R ●●● P □ A	-	-	-	
8533-4WS ●●● P □ L	EN2997-W6 ●●● A □	-	-	-	-	
8533-0KS ●●● P □ 08 ⁽³⁾	-	-	-	-	-	square flange receptacle
8533-0KS ●●● P □	EN2997-S0 ●●● M □	-	-	-	-	
8533-0KS ●●● P □ L	EN2997-S0 ●●● A □	-	-	-	-	
8533-3KS ●●● P □ 08 ⁽³⁾	-	-	-	-	-	plug with self locking and RFI shielded
8533-3KS ●●● P □	EN2997-S6 ●●● M □	-	-	-	-	
8533-3KS ●●● P □ L	EN2997-S6 ●●● A □	-	-	-	-	
8533-4KS ●●● P □ 08 ⁽³⁾	-	-	-	-	-	plug with self locking
8533-4KS ●●● P □	EN2997-K6 ●●● M □	-	-	-	-	
8533-4KS ●●● P □ L	EN2997-K6 ●●● A □	-	-	-	-	
8533-1Y ●●● P □	EN2997-Y1 ●●● M □	-	-	-	-	solder fixing receptacle square flange hermetic receptacle jam nut hermetic receptacle
8533-2Y ●●● P □	EN2997-Y0 ●●● M □	-	-	-	-	
8533-7Y ●●● P □	EN2997-Y7 ●●● M □	-	-	-	-	
8533-0ES ●●● P □ 08 ⁽³⁾	-	ASN-E0444SE ●●● P □	-	-	-	square flange receptacle
8533-0ES ●●● P □	EN2997-SE0 ●●● M □	-	BACC63CN ●●● P □ A	BACC63BT ●●● P □ A	-	
8533-0ES ●●● P □ L	EN2997-SE0 ●●● A □	ASN-E0444SE ●●● P □ A	BACC63CN ●●● P □	BACC63BT ●●● P □	ESC10KE0 ●●● P □	
8533-3ES ●●● P □ 08 ⁽³⁾	-	ASN-E0442SE ●●● P □	-	-	-	plug with self locking and RFI shielded
8533-3ES ●●● P □	EN2997-SE6 ●●● M □	-	BACC63CM ●●● P □ A	BACC63BR ●●● P □ A	-	
8533-3ES ●●● P □ L	EN2997-SE6 ●●● A □	ASN-E0442SE ●●● P □ A	BACC63CM ●●● P □	BACC63BR ●●● P □	ESC10SE6 ●●● P □	
8533-4ES ●●● P □ 08 ⁽³⁾	-	ASN-E0441KE ●●● P □	-	-	-	plug with self locking
8533-4ES ●●● P □	EN2997-KE6 ●●● M □	-	-	-	-	
8533-4ES ●●● P □ L	EN2997-KE6 ●●● A □	ASN-E0441KE ●●● P □ A	-	-	ESC10KE6 ●●● P □	
8533-KE5 ●●	EN2997-KE5 ●●	-	-	-	-	dummy receptacle
8533-1YE ●●● P □	EN2997-YE1 ●●● M □	-	-	-	ESC10YE1 ●●● P □	solder fixing receptacle
8533-2YE ●●● P □	EN2997-YE0 ●●● M □	-	-	-	ESC10YE2 ●●● P □	square flange hermetic receptacle
8533-7YE ●●● P □	EN2997-YE7 ●●● M □	-	-	-	-	jam nut hermetic receptacle

(1) : Part numbers in specification NLF 54143. Replace EN 2997 by 3.

(2) : Superseded by BACC 63 CN/CM

(3) : 08 for #20 contacts layouts

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Contact layouts viewed from front face of male insulator

▲ class 200°C

■ class 260°C

● hermetic

08	▲ ■ ● 08-03 3#20	▲ ■ 08-98 3#20	
10	▲ ■ ● 10-05 5#20	▲ ■ ● 10-06 6#20	
12	▲ ■ ● 12-03 3#16	▲ ■ ● 12-12 12#20	
14	▲ ■ ● 14-04 4#12	▲ ■ ● 14-07 7#16	▲ ■ ● 14-15 15#20
16	▲ ■ 16-10 10#16	▲ ■ ● 16-24 24#20	▲ SN393 4 Coax 50 Ω 1#16
18	▲ ■ 18-14 14#16	▲ ■ ● 18-31 31#20	▲ ■ 18-08 8#12
20	▲ ■ 20-39 37#20 2#16	▲ ■ 20-41 41#20	▲ ■ 20-16 16#16
22	▲ ■ 22-12 12#12	▲ ■ 22-19 19#16	▲ ■ ● 22-55 55#20
24	▲ ■ 24-61 61#20	▲ ■ 24-30 30#16	
28	▲ ■ 28-42 42#16	<div style="background-color: #cccccc; width: 20px; height: 10px; display: inline-block; margin-right: 5px;"></div> Consult us - Special product. For other contacts layout please consult us.	

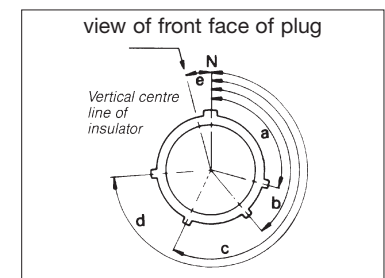
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Polarization

alternative shell key and insert positions (MIL STD 1554)																									
positions		shell 08				shell 10				shell 12				shell 14				shell 16				shell 18			
key	e° insert	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°
N	0	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
6	0	102	132	248	320	102	132	248	320	18	149	192	259	18	149	192	259	18	149	192	259	18	149	192	259
7	0	80	118	230	312	80	118	230	312	92	152	222	342	92	152	222	342	92	152	222	342	92	152	222	342
8	0	35	140	205	275	35	140	205	275	84	152	204	334	84	152	204	334	84	152	204	334	84	152	204	334
9	0	—	—	—	—	—	—	—	—	24	135	199	240	24	135	199	240	24	135	199	240	—	—	—	—
Y	0	—	—	—	—	—	—	—	—	—	—	—	—	98	152	268	338	98	152	268	338	—	—	—	—

alternative shell key and insert positions (MIL STD 1554)																	
positions		shell 20				shell 22				shell 24				shell 28			
key	e° insert	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°
N	0	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
6	0	18	149	192	259	18	149	192	259	18	149	192	259	18	149	192	259
7	0	92	152	222	342	92	152	222	342	92	152	222	342	92	152	222	342
8	0	84	152	204	334	—	—	—	—	—	—	—	—	—	—	—	—
9	0	24	135	199	240	—	—	—	—	—	—	—	—	—	—	—	—
Y	0	98	152	268	338	—	—	—	—	—	—	—	—	—	—	—	—



Crimp contacts

contact size	type	part numbers		code by colour bands	admissible wire section		external ø over insulator		
		male contact	female contact		AWG	mm ²	min.	Max.	
class 175°C and 200°C	20	standard large barrel	8526-1348 8522-2349A	8526-1344 8520-292	red - red red - violet	24-20 22-18	0.21-0.60 0.38-0.93	0.85 0.85	2.10 2.10
	16	standard large barrel small barrel	8526-1349 8522-6179A 8526-4175	8526-1346 8522-6180A 8526-4176	blue - blue blue - orange blue - orange	20-16 18-14 22-18	0.60-1.34 0.93-1.91 0.38-0.93	1.20 1.20 1.20	2.70 2.70 2.70
	12	standard small barrel	8526-1350 8526-5041	8526-1347 8526-5591	yellow - yellow yellow - violet	14-12 22-18	1.91-3.18 0.38-0.93	1.90 1.90	4.01 4.01
class 260°C	20	standard small barrel	8533-1000 8533-1002	8533-1001 8533-1003	red - red + 1 white dot red - violet + 1 white dot	24-20 22-18	0.25-0.60 0.38-0.93	0.85 0.85	2.10 2.10
	20	double crimping	8533-1019	8533-1018	red - green + 1 white dot	22	0.4	-	1.25
	16	standard large barrel small barrel	8533-1004 8533-1006 8533-1008	8533-1005 8533-1007 8533-1009	blue - blue + 1 white dot blue - orange + 1 white dot blue - violet + 1 white dot	20-16 18-14 22-18	0.60-1.34 0.93-1.91 0.38-0.93	1.20 1.20 1.20	2.70 2.70 2.70
	12	standard	8533-1035	8533-1036	yellow - yellow + 1 white dot	14-12	1.91-3.18	1.90	4.01

Thermocouple contacts

contact size	type C : chromel A : alumel	male contact		female contact		admissible wire section		external ø over insulator							
		part numbers	code by colour bands	part numbers	code by colour bands	AWG	mm ²	min.	Max.						
class 175°C and 200°C	20	standard	C	8522-875A	brown-orange-green	8522-877A	brown-yel.-brown	24-20	0.21-0.60	0.85	2.10				
			A	8522-876A	brown-orange-yel.	8522-878A	brown-yel.-black								
		large barrel	C	8522-3761	yellow 2 dots	8522-3770	yellow 2 dots					22-18	0.38-0.93	0.85	2.10
			A	8522-3760	black 2 dots	8522-3771	black 2 dots								
	16	standard	C	8522-881	yellow 1 dot	8522-883	yellow 1 dot	20-16	0.60-1.34	1.20	2.70				
			A	8522-882	black 1 dot	8522-884	black 1 dot								
	12	standard	C	8522-887	yellow 1 dot	8522-889	yellow 1 dot	14-12	1.91-3.18	1.90	4.01				
			A	8522-888	black 1 dot	8522-890	black 1 dot								

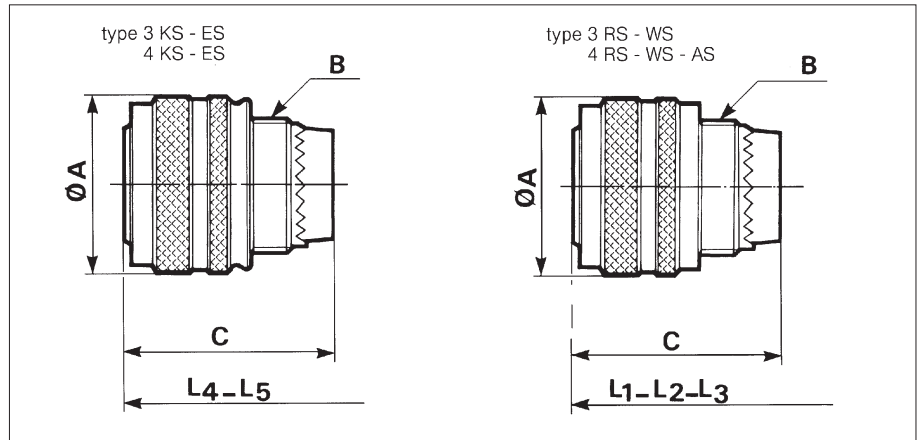
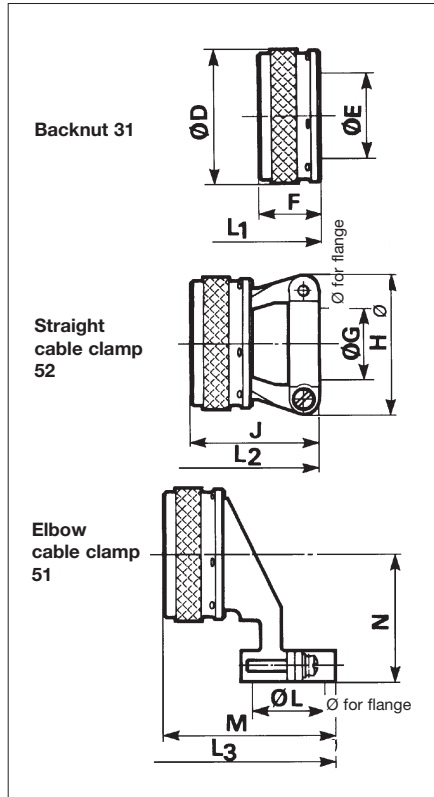
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Dimensions

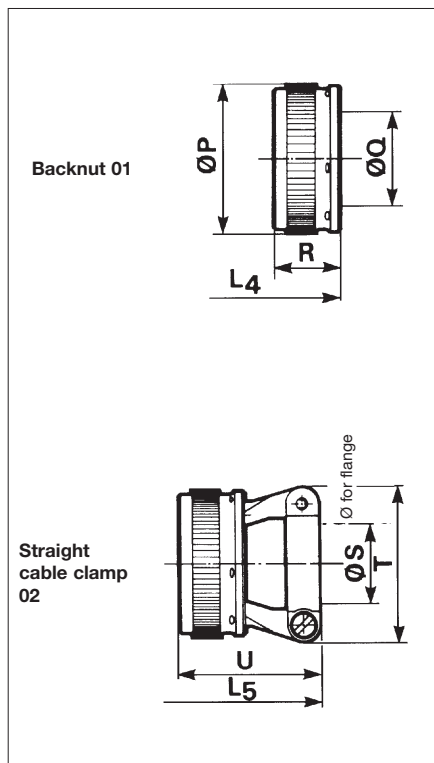
Plug type 3 classes WS - RS - KS - ES and type 4 classes WS - AS - KS - ES with backshells

Aluminum backshells



shell size	08	10	12	14	16	18	20	22	24	28
A Max	21.30 .839	24.90 .980	29.60 1.165	31.25 1.230	34.42 1.355	37.34 1.470	41.91 1.650	44.07 1.735	47.24 1.860	52.00 2.047
B Thread	1/2"-20 UNEF 2A	5/8"-24 UNEF 2A	3/4"-20 UNEF 2A	7/8"-20 UNEF 2A	1"-20 UNEF 2A	1-1/16"-18 UNEF 2A	1-3/16"-18 UNEF 2A	1-5/16"-18 UNEF 2A	1-7/16"-18 UNEF 2A	1-3/4"-18 UNEF 2A
C Max	34.50 1.358	34.50 1.358	34.50 1.358	34.50 1.358	34.50 1.358	34.50 1.358	34.50 1.358	34.50 1.358	34.50 1.358	34.50 1.358
D Max	15.65 .616	18.60 .732	21.75 .856	24.95 .982	28.20 1.110	30.90 1.217	34.15 1.344	37.25 1.467	40.45 1.593	-
E	6.75 .266	9.40 .370	12.80 .504	14.75 .581	17.93 .706	19.94 .785	23.11 .910	26.29 1.035	29.20 1.150	-
F Max	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	-
L1 Max	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	-
G min	3.20 .126	4.75 .187	7.40 .291	8.90 .350	12.75 .502	13.45 .530	14.75 .581	16.35 .644	17.95 .707	-
G Max	5.20 .205	7.25 .285	10.60 .417	12.10 .476	15.90 .626	17.90 .705	21.10 .831	24.30 .957	27.50 1.083	-
H Max	19.10 .752	21.10 .831	25.10 .988	26.60 1.047	33.50 1.319	36.90 1.453	39.50 1.555	42.00 1.654	45.10 1.776	-
J Max	22.65 .892	24.45 .963	27.85 1.096	27.85 1.096	30.85 1.215	37.85 1.490	40.45 1.593	44.35 1.746	46.75 1.841	-
L2 Max	45.80 1.803	47.60 1.874	51.00 2.008	51.00 2.008	54.00 2.126	61.00 2.402	63.60 2.504	67.50 2.657	69.90 2.752	-
N Max	20.50 .807	22.00 .866	23.60 .929	25.20 .992	26.80 1.055	31.30 1.232	32.90 1.295	34.50 1.358	36.10 1.421	-
L min	3.20 .126	4.75 .187	7.40 .291	8.90 .350	12.75 .502	13.15 .518	14.75 .581	16.35 .644	17.95 .707	-
L Max	5.20 .205	7.25 .285	10.60 .417	12.10 .476	15.90 .626	17.90 .705	21.10 .831	24.30 .957	27.50 1.083	-
M Max	27.60 1.087	29.30 1.154	31.90 1.256	33.40 1.315	37.30 1.469	38.70 1.524	40.25 1.585	41.90 1.650	43.50 1.713	-
L3 Max	50.75 1.998	52.45 2.065	55.05 2.167	56.55 2.226	60.45 2.380	61.85 2.435	63.40 2.496	65.05 2.561	66.65 2.624	-
P Max	15.20 .598	18.30 .720	21.50 .846	24.70 .972	28.70 1.130	29.60 1.165	32.90 1.295	36.00 1.417	39.50 1.555	-
Q Max	7.50 .295	9.70 .382	12.90 .508	14.90 .587	18.05 .711	20.05 .789	23.40 .921	26.40 1.039	29.50 1.161	-
R Max	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	-
L4 Max	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	-
S min	3.18 .125	4.75 .187	7.40 .291	8.91 .351	12.72 .501	13.16 .518	14.76 .581	16.36 .644	17.93 .706	-
S Max	5.18 .204	7.26 .286	10.57 .416	12.10 .476	15.88 .623	17.93 .706	21.11 .831	24.28 .956	27.46 1.081	-
T Max	19.10 .752	21.15 .833	25.10 .988	26.60 1.047	33.50 1.319	36.90 1.453	39.60 1.559	42.00 1.654	45.10 1.776	-
U Max	22.50 .886	25.35 .998	28.50 1.122	28.50 1.122	31.70 1.248	38.05 1.498	41.50 1.634	44.40 1.748	47.60 1.874	-
L5 Max	45.80 1.803	48.65 1.915	51.80 2.039	51.80 2.039	55.00 2.165	61.35 2.415	64.80 2.551	67.70 2.665	70.90 2.791	-

Stainless steel backshells

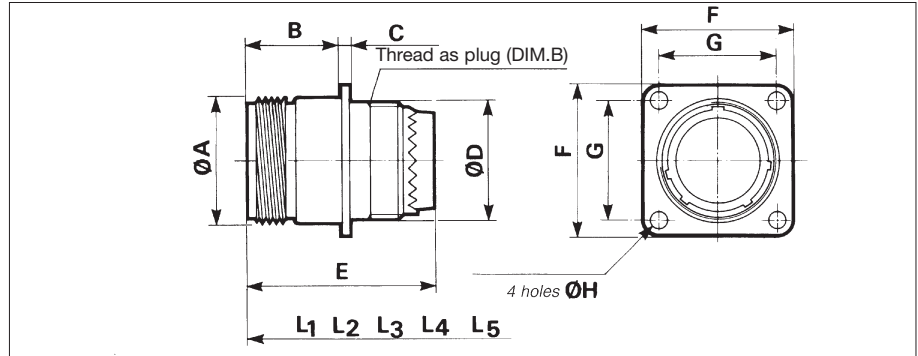
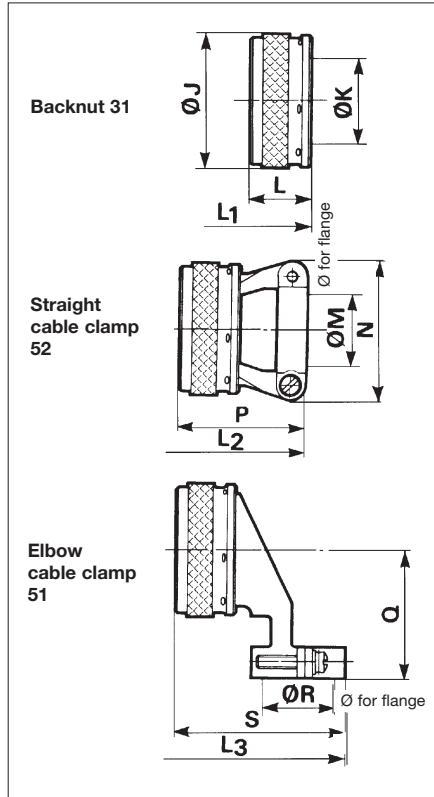


8533 Series



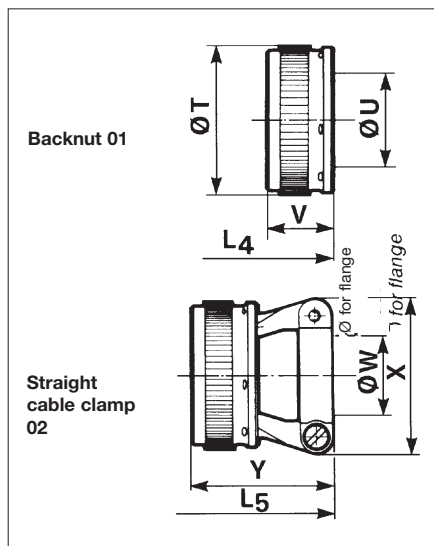
Square flange receptacle type 0 classes WS - RS - AS - KS - ES with backshells

Aluminum backshells



shell size	08	10	12	14	16	18	20	22	24	28
A Max	14.27 .562	17.48 .688	22.22 .875	23.83 .938	26.97 1.062	30.18 1.188	33.32 1.312	36.53 1.438	39.67 1.562	45.99 1.811
B Max	18.35 .722	18.35 .722	18.35 .722	18.35 .722	18.35 .722	18.35 .722	18.35 .722	18.35 .722	18.35 .722	18.35 .722
C Max	1.45 .057	1.45 .057	1.45 .057	1.45 .057	1.45 .057	1.45 .057	1.45 .057	1.45 .057	1.45 .057	1.45 .057
D Max	12.66 .498	15.84 .624	19.02 .749	22.19 .874	25.36 .998	26.95 1.061	30.12 1.186	33.30 1.311	36.47 1.436	44.41 1.748
E Max	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417
F Max	20.75 .817	23.95 .943	26.31 1.036	28.69 1.130	31.88 1.255	34.24 1.348	36.63 1.442	39.80 1.567	43.38 1.708	50.83 2.001
G	15.09 .594	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.92 1.375	39.67 1.562
H Max	3.10 .122	3.10 .122	3.10 .122	3.10 .122	3.10 .122	3.10 .122	3.10 .122	3.10 .122	3.90 .154	3.90 .154
J Max	15.65 .616	18.60 .732	21.75 .856	24.95 .982	28.20 1.110	30.90 1.217	34.15 1.344	37.25 1.467	40.45 1.593	-
K	6.75 .266	9.40 .370	12.80 .504	14.75 .581	17.95 .707	19.95 .785	23.10 .909	26.30 1.035	40.45 1.593	-
L Max	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	-
L1 Max	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	-
M min	3.20 .126	4.75 .187	7.40 .291	8.90 .350	12.75 .502	13.15 .518	14.75 .581	16.35 .644	17.95 .707	-
M Max	5.20 .205	7.25 .285	10.60 .417	12.10 .476	15.90 .626	17.90 .705	21.10 .831	24.30 .957	27.50 1.083	-
N Max	19.10 .752	21.10 .831	25.10 .988	26.60 1.047	33.50 1.319	36.90 1.453	39.50 1.555	42.00 1.654	45.10 1.776	-
P Max	22.65 .892	24.45 .963	27.85 1.096	27.85 1.096	30.85 1.215	37.85 1.490	40.45 1.593	44.35 1.746	46.75 1.841	-
L2 Max	47.40 1.866	49.20 1.937	52.60 2.071	52.60 2.071	55.60 2.189	62.60 2.465	65.20 2.567	69.10 2.720	71.50 2.815	-
Q Max	20.50 .807	22.00 .866	23.60 .929	25.20 .992	26.80 1.055	31.30 1.232	32.90 1.295	34.50 1.358	36.10 1.421	-
R min	3.20 .126	4.75 .187	7.40 .291	8.90 .350	12.75 .502	13.15 .518	14.75 .581	16.35 .644	17.95 .707	-
R Max	5.20 .205	7.25 .285	10.60 .417	12.10 .476	15.90 .626	17.90 .705	21.10 .831	24.30 .957	27.50 1.083	-
S Max	27.60 1.087	29.30 1.154	31.90 1.256	33.40 1.315	37.30 1.469	38.70 1.524	40.25 1.585	41.90 1.650	43.50 1.713	-
L3 Max	52.35 2.061	54.05 2.128	56.65 2.230	58.15 2.289	62.05 2.443	63.45 2.498	65.00 2.559	66.65 2.624	68.25 2.687	-
T Max	15.20 .598	18.30 .720	21.50 .846	24.70 .972	28.10 1.106	29.60 1.165	32.90 1.295	36.00 1.417	39.50 1.555	-
U Max	7.50 .295	9.70 .382	12.90 .508	14.90 .587	18.05 .711	20.05 .789	23.40 .921	26.40 1.039	29.50 1.161	-
V Max	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	-
L4 Max	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	-
W min	3.18 .125	4.75 .187	7.40 .291	8.91 .351	12.72 .501	13.16 .518	14.76 .581	16.36 .644	17.93 .706	-
W Max	5.18 .204	7.26 .286	10.57 .416	12.10 .476	15.88 .625	17.93 .706	21.11 .831	24.28 .956	27.46 1.081	-
X Max	19.10 .752	21.15 .833	25.10 .988	26.60 1.047	33.50 1.319	36.90 1.453	39.60 1.559	42.00 1.654	45.10 1.776	-
Y Max	22.50 .886	25.35 .998	28.50 1.122	28.50 1.122	31.70 1.248	38.05 1.498	41.50 1.634	44.40 1.748	47.60 1.874	-
L5 Max	47.40 1.866	50.25 1.978	53.40 2.102	53.40 2.102	56.60 2.228	62.95 2.478	66.40 2.614	69.30 2.728	72.60 2.858	-

Stainless steel backshells

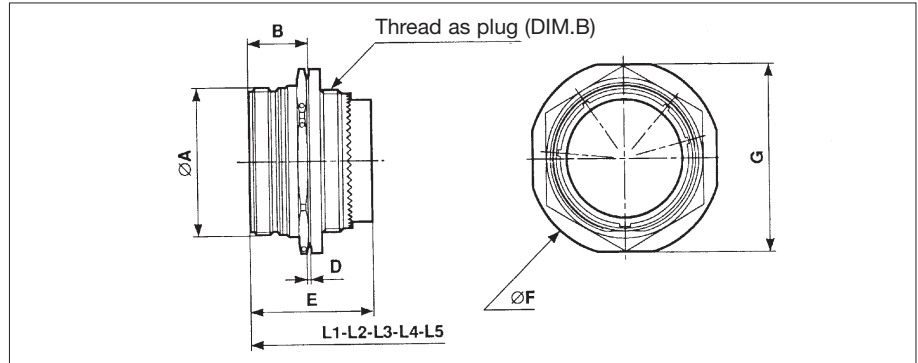
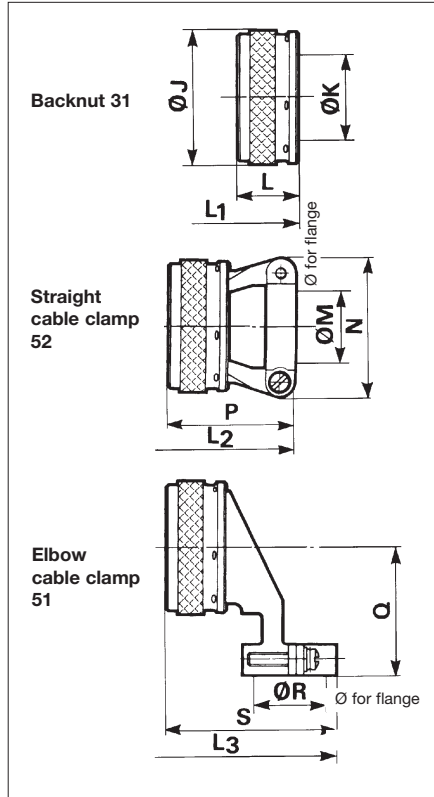


8533 Series



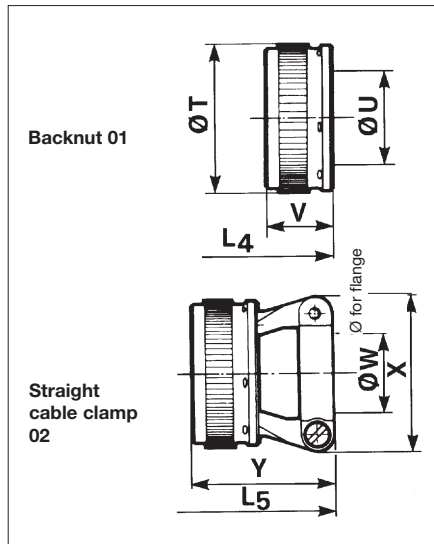
Jam nut receptacle type 7 classes WS - RS - AS - KS - ES with backshells

Aluminum backshells



shell size	08	10	12	14	16	18	20	22	24
A Max	14.27 .562	17.47 .688	22.22 .875	23.82 .938	26.97 1.062	30.18 1.188	33.32 1.312	36.53 1.438	39.67 1.562
B Max	19.84 .781	19.84 .781	19.84 .781	19.84 .781	19.84 .781	19.84 .781	19.84 .781	19.84 .781	19.84 .781
D	min 3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125
D Max	1.57 .062	1.57 .062	1.57 .062	1.57 .062	1.57 .062	1.57 .062	1.57 .062	1.57 .062	1.57 .062
E Max	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417	36.00 1.417
F Max	27.38 1.078	30.28 1.192	35.05 1.380	38.51 1.516	41.68 1.641	44.86 1.766	49.63 1.954	52.78 2.078	55.42 2.182
G Max	24.89 .980	28.04 1.104	32.79 1.291	35.33 1.391	38.51 1.516	41.68 1.641	44.86 1.766	49.63 1.954	52.81 2.079
H Max	21.06 .829	24.23 .954	29.01 1.142	30.61 1.205	33.76 1.329	36.96 1.455	40.11 1.579	43.31 1.705	46.46 1.829
J Max	15.65 .616	18.60 .732	21.75 .856	24.95 .982	28.20 1.110	30.90 1.217	34.15 1.344	37.25 1.467	40.45 1.593
K	6.75 .266	9.40 .370	12.80 .504	14.75 .581	17.95 .707	19.95 .785	23.10 .909	26.30 1.035	40.45 1.593
L Max	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506	12.85 .506
L1 Max	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480
M	min 3.20 .126	4.75 .187	7.40 .291	8.90 .350	12.75 .502	13.15 .518	14.75 .581	16.35 .644	17.95 .707
M Max	5.20 .205	7.25 .285	10.60 .417	12.10 .476	15.90 .626	17.90 .705	21.10 .831	24.30 .957	27.50 1.083
N Max	19.10 .752	21.10 .831	25.10 .988	26.60 1.047	33.50 1.319	36.90 1.453	39.50 1.555	42.00 1.654	45.10 1.776
P Max	22.65 .892	24.45 .963	27.85 1.096	27.85 1.096	30.85 1.215	37.85 1.490	40.45 1.593	44.35 1.746	46.75 1.841
L2 Max	47.40 1.866	49.20 1.937	52.60 2.071	52.60 2.071	55.60 2.189	62.60 2.465	65.20 2.567	69.10 2.720	71.50 2.815
O Max	20.50 .807	22.00 .866	23.60 .929	25.20 .992	26.80 1.055	31.30 1.232	32.90 1.295	34.50 1.358	36.10 1.421
R	min 3.20 .126	4.75 .187	7.40 .291	8.90 .350	12.75 .502	13.15 .518	14.75 .581	16.35 .644	17.95 .707
R Max	5.20 .205	7.25 .285	10.60 .417	12.10 .476	15.90 .626	17.90 .705	21.10 .831	24.30 .957	27.50 1.083
S Max	27.60 1.087	29.30 1.154	31.90 1.256	33.40 1.315	37.30 1.469	38.70 1.524	40.25 1.585	41.90 1.650	43.50 1.713
L3 Max	52.35 2.061	54.05 2.128	56.65 2.230	58.15 2.289	62.05 2.443	63.45 2.498	65.00 2.559	66.65 2.624	68.25 2.687
T Max	15.20 .598	18.30 .720	21.50 .846	24.70 .972	28.10 1.106	29.60 1.165	32.90 1.295	36.00 1.417	39.50 1.555
U Max	7.50 .295	9.70 .382	12.90 .508	14.90 .587	18.05 .711	20.05 .789	23.40 .921	26.40 1.039	29.50 1.161
V Max	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500	12.70 .500
L4 Max	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480	37.60 1.480
W	min 3.18 .125	4.75 .187	7.40 .291	8.91 .351	12.72 .501	13.16 .354	14.76 .581	16.36 .644	17.93 .706
W Max	5.18 .204	7.26 .286	10.57 .416	12.10 .476	15.88 .625	17.93 .706	21.11 .831	24.28 .956	27.46 1.081
X Max	19.10 .752	21.15 .833	25.10 .988	26.60 1.047	33.50 1.319	36.90 1.453	39.60 1.559	42.00 1.654	45.10 1.776
Y Max	22.50 .886	25.35 .998	28.50 1.122	28.50 1.122	31.70 1.248	38.05 1.498	41.50 1.634	44.40 1.748	47.60 1.874
L5 Max	47.40 1.866	50.25 1.978	53.40 2.102	53.40 2.102	56.60 2.228	62.95 2.478	66.40 2.614	69.30 2.728	72.60 2.858

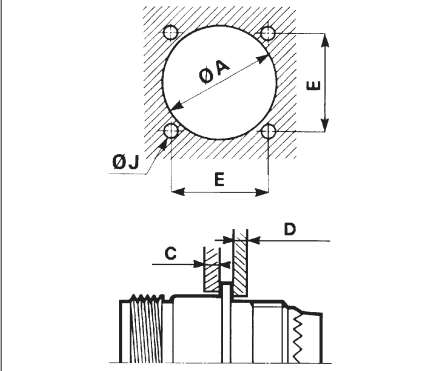
Stainless steel backshells



8533 Series



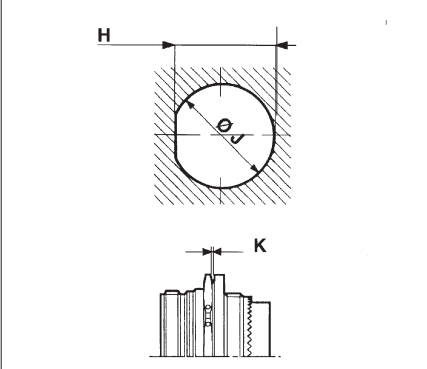
Panel cut-out



Type 0

shell size	08	10	12	14	16	18	20	22	24	28
A min	15.80 .622	18.70 .736	23.40 .921	24.90 .980	28.30 1.114	31.10 1.224	34.50 1.358	37.50 1.476	40.60 1.598	48.00 1.890
E	15.09 .594	18.26 .719	20.62 .812	23.01 .906	24.61 .969	26.97 1.062	29.36 1.156	31.75 1.250	34.92 1.375	39.67 1.562
J	3.20 .126	3.20 .126	3.20 .126	3.20 .126	3.20 .126	3.20 .126	3.20 .126	3.20 .126	3.80 .150	3.80 .150
C Max	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125
D Max	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125

Panel cut-out

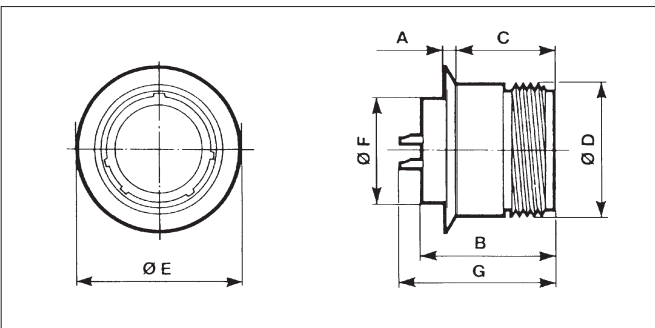


Type 7

shell size	08	10	12	14	16	18	20	22	24
J	16.00 .630	19.17 .755	23.92 .942	25.52 1.005	28.70 1.130	31.87 1.255	35.05 1.380	38.22 1.505	41.40 1.630
H	15.24 .600	18.41 .725	23.16 .912	24.76 .975	27.94 1.100	30.99 1.220	34.16 1.345	37.33 1.470	40.51 1.595
K Max	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125	3.18 .125

Dimensions

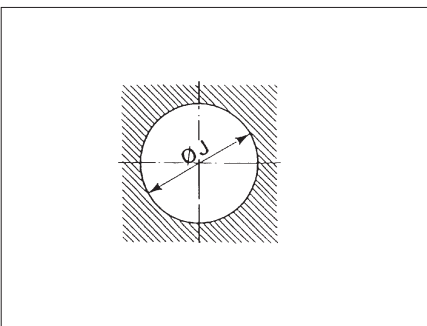
Hermetic receptacle Type 1Y/1YE



shell size	A Max	B Max	C Max	D Max	E Max	F Max	G Max	ØJ min
08	1.45 .057	22.05 .868	18.45 .726	14.29 .563	18.12 .713	12.70 .500	26.50 1.043	12.96 .510
10	1.45 .057	22.05 .868	18.45 .726	17.46 .687	21.52 .847	14.25 .561	26.50 1.043	14.53 .572
12	1.45 .057	22.05 .868	18.45 .726	22.22 .875	26.57 1.046	19.05 .750	26.50 1.043	19.30 .760
14	1.45 .057	22.05 .868	18.45 .726	23.81 .937	27.82 1.095	20.60 .811	26.50 1.043	20.88 .822
16	1.45 .057	22.05 .868	18.45 .726	26.99 1.063	30.92 1.217	23.79 .937	26.50 1.043	24.05 .947
18	1.45 .057	22.05 .868	18.45 .726	30.16 1.187	34.22 1.347	26.95 1.061	26.50 1.043	27.23 1.072
20*	1.45 .057	22.05 .868	18.45 .726	33.34 1.313	37.22 1.465	30.12 1.186	26.50 1.043	30.40 1.097
22	1.45 .057	22.05 .868	18.45 .726	36.51 1.437	40.62 1.599	33.30 1.311	26.50 1.043	23.58 .928
24*	1.45 .057	22.05 .868	18.45 .726	39.69 1.563	43.62 1.717	36.47 1.436	26.50 1.043	36.70 1.445

* Consult us

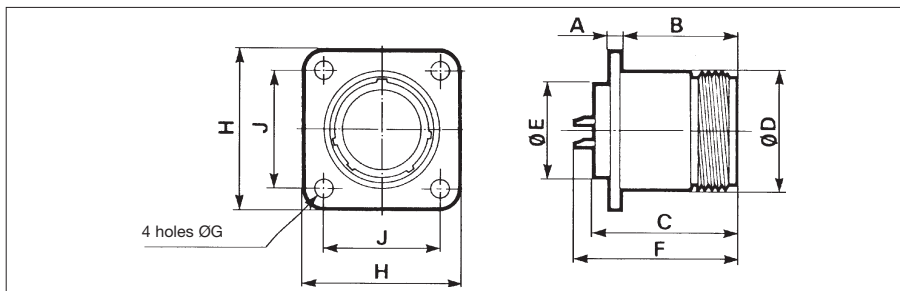
Panel cut-out



8533 Series



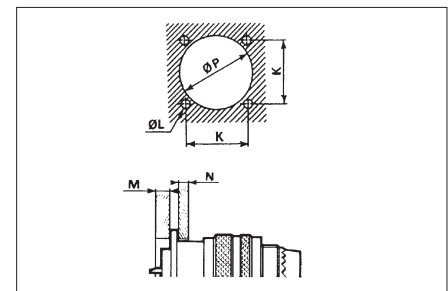
Hermetic receptacle type 2Y/2YE



shell size	A Max	B Max	C Max	D Max	E Max	F Max	G Max	H Max	J Max
08	1.45 .057	18.35 .722	22.05 .868	14.29 .563	12.70 .500	26.50 1.043	3.00 .118	20.75 .817	15.09 .594
10	1.45 .057	18.35 .722	22.05 .868	17.46 .687	14.25 .561	26.50 1.043	3.00 .118	23.95 .943	18.26 .719
12	1.45 .057	18.35 .722	22.05 .868	22.22 .875	19.05 .750	26.50 1.043	3.00 .118	26.31 1.036	20.62 .812
14	1.45 .057	18.35 .722	22.05 .868	23.81 .937	20.60 .811	26.50 1.043	3.00 .118	28.69 1.130	23.01 .906
16	1.45 .057	18.35 .722	22.05 .868	26.99 1.063	23.79 .937	26.50 1.043	3.00 .118	31.88 1.255	24.61 .969
18	1.45 .057	18.35 .722	22.05 .868	30.16 1.187	26.95 1.061	26.50 1.043	3.00 .118	34.24 1.348	26.97 1.062
20*	1.45 .057	18.35 .722	22.05 .868	33.34 1.313	30.12 1.186	26.50 1.043	3.00 .118	36.63 1.442	29.36 1.156
22	1.45 .057	18.35 .722	22.05 .868	36.51 1.437	33.30 1.311	26.50 1.043	3.00 .118	39.80 1.567	31.75 1.250
24*	1.45 .057	18.35 .722	22.05 .868	39.69 1.563	36.47 1.436	26.50 1.043	3.80 .150	43.38 1.708	34.92 1.375

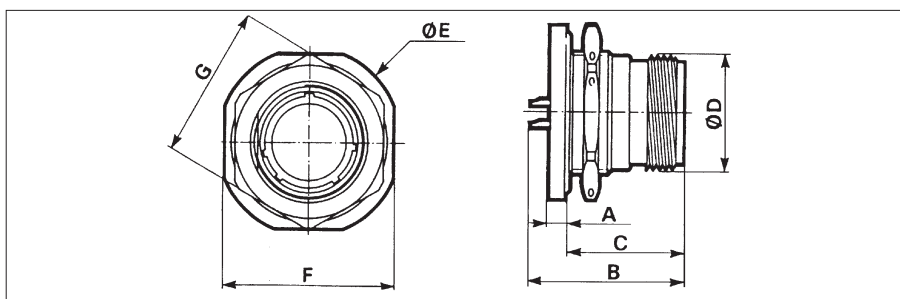
* Not industrialized

Panel cut-out



K	L	M	N Max	P min
15.09 .594	3.20 .126	3.18 .125	3.18 .125	15.70 .618
18.26 .719	3.20 .126	3.18 .125	3.18 .125	18.90 .744
20.62 .812	3.20 .126	3.18 .125	3.18 .125	23.50 .925
23.01 .906	3.20 .126	3.18 .125	3.18 .125	25.10 .988
24.61 .969	3.20 .126	3.18 .125	3.18 .125	28.30 1.114
26.97 1.062	3.20 .126	3.18 .125	3.18 .125	31.40 1.236
29.36 1.156	3.20 .126	3.18 .125	3.18 .125	34.60 1.362
31.75 1.250	3.20 .126	3.18 .125	3.18 .125	37.80 1.488
34.92 1.375	4.00 .157	3.18 .125	3.18 .125	40.90 1.610

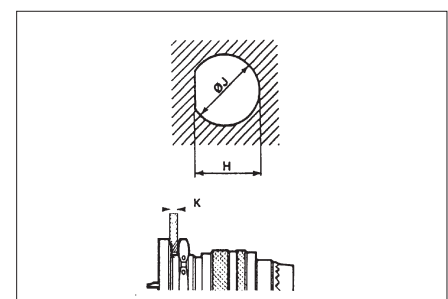
Hermetic receptacle type 7Y/7YE



shell size	A Max	B Max	C Max	D Max	E Max	F Max	G Max
08	2.60 .102	26.50 1.043	19.52 .769	14.29 .563	27.35 1.077	24.85 .978	20.12 .792
10	2.60 .102	26.50 1.043	19.52 .769	17.46 .687	30.24 1.191	28.00 1.102	24.20 .953
12	2.60 .102	26.50 1.043	19.52 .769	22.22 .875	35.01 1.378	32.75 1.289	28.95 1.140
14	2.60 .102	26.50 1.043	19.52 .769	23.81 .937	38.46 1.514	35.29 1.389	30.30 1.193
16	2.60 .102	26.50 1.043	19.52 .769	26.99 1.063	41.64 1.639	38.46 1.514	33.45 1.317
18	2.60 .102	26.50 1.043	19.52 .769	30.16 1.187	44.81 1.764	41.64 1.639	34.64 1.364
20*	3.35 .132	26.50 1.043	19.52 .769	33.34 1.313	49.60 1.953	44.86 1.766	39.80 1.567
22	3.35 .132	26.50 1.043	19.52 .769	36.51 1.437	52.74 2.076	49.59 1.952	43.00 1.693
24*	3.35 .132	26.50 1.043	19.52 .769	39.69 1.563	55.40 2.181	52.81 2.079	46.15 1.817

* Not industrialized

Panel cut-out

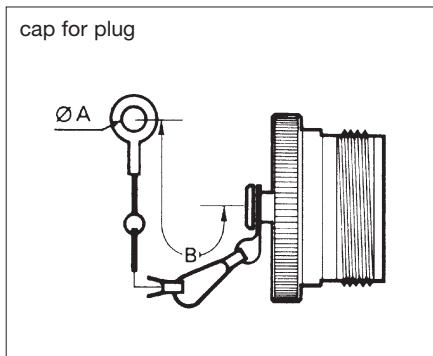


H	J	K Max
15.24 .600	16.00 .630	3.17 .125
18.41 .725	19.17 .755	3.17 .125
23.16 .912	23.92 .942	3.17 .125
24.76 .975	25.52 1.005	3.17 .125
27.94 1.100	28.70 1.130	3.17 .125
30.99 1.220	31.87 1.255	3.17 .125
34.16 1.345	35.05 1.380	3.17 .125
37.33 1.470	38.22 1.505	3.17 .125
40.51 1.595	41.40 1.630	3.17 .125

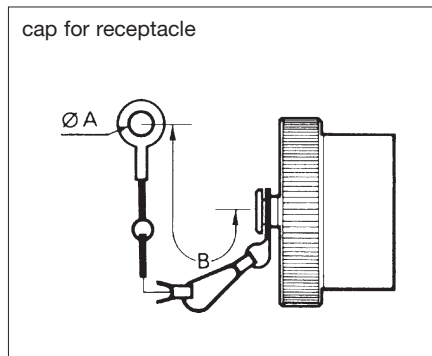
8533 Series



Protective caps



Aluminum version



shells	A Max	B Max
08	3.20 .126	134.00 5.276
10	3.20 .126	134.00 5.276
12	3.20 .126	134.00 5.276
14	3.20 .126	134.00 5.276
16	3.20 .126	134.00 5.276
18	3.20 .126	134.00 5.276
22	3.20 .126	134.00 5.276

Tooling crimping

contact sizes	wires		part numbers	
	mm ²	AWG	crimping pliers	locator
20	0.93	18	8365 (M 22520 / 1-01) or 8476-01 (M 22520 / 2-01)	8365-02 (M22520 / 1-02) or 8476-02 (M22520 / 2-02)
	0.60	20		
	0.38	22		
	0.21	24		
16	1.91	14	8365 (M 22520 / 1-01)	8365-02 (M 22520 / 1-02)
	1.34	16		
	0.93	18		
	0.60	20		
12	3.18	12	8365 (M 22520 / 1-01)	8365-02 (M 22520 / 1-02)
	1.91	14		

Insertion and extraction of wired contacts

disposable plastic tool :

- colored tip for insertion
- white tip for extraction

contact sizes	part numbers	colour
20	(M 81969-14-11) 8522-20	red
16	(M 81969-14-03) 8522-16	blue
12	(M 81969-14-04) 8522-12	yellow

Extraction of unwired contacts

contact sizes	part numbers
20	8522-56
16	8522-57
12	8522-58

Filler plug

these filler plugs are installed at the rear of unwired contacts to maintain connector sealing

contact sizes	part numbers	colour
20	8522-389 A*/MS 27488-20	red
16	8522-390 A/MS 27488-16	blue
12	8522-391 A/MS 27488-12	yellow

* for class 200°C only

Reusable fixing plate

Two, three or four holes self locking fixing plates, see page 126.