



## Applications

For all signal purposes requiring low dimensions and high density of contacts.

## Standards



## Description

- Bayonet coupling
- Compact and scoop proof connector
- High density of size 24 contacts
- Aluminium alloy nickel plated
- Sealing across connectors
- Hermetic version available

## Characteristics

### Mechanical

- Mechanical endurance : 250 operations
- Contact retention in insert : 35 N
- Vibration : to MIL STd 202, method 204 test condition C (10 to 2000 Hz - 10 g)
- Shock : 50 g - 11 ms in 3 axis

### Electrical

- Max current rating per contact 3A
- Contact resistance :  $\leq 6 \text{ m}\Omega$
- Insulation resistance :  $\geq 5000 \text{ M}\Omega$  at 500 Vdc
- Breakdown voltage : at ground level : 1250 Vrms at 21 000 m : 250 Vrms (in normal use : male contacts in receptacle female contacts in plug)

### Resistance to fluids

MIL L 7808 - Skydrol 500B - Hyjet 4

### Climatic

- Operating temperature : - 55°C + 150°C
- Salt spray : 48 hours
- Damp heat : 56 days at 40°C
- Leakage : environmental version : 1 bar hermetic version : differential pressure of 1 bar air/hélium, leakage is  $\leq 1.04 \cdot 10^{-5} \text{ cm}^3/\text{s}$

## Ordering information

### Environmental connectors

<b>basic series</b>	<b>87</b>	<b>1 - 2</b>	<b>A</b>	<b>3 - 12</b>	<b>P</b>	<b>1B</b>
<b>class</b>	1 - environmental					
<b>shell type</b>	2 - oval flange receptacle 7 - jam nut receptacle 6 - plug					
<b>backshell type</b>	A - backnut B - straight cable clamp F - straight backshell for potting G - elbow backshell for potting N - straight backshell for heat shrink sleeving for plug only					
<b>shell size</b>	2-3-4					
<b>contact layouts</b>	see table p 182					
<b>contact type</b>	P - male      S - female*					
<b>obligatory suffix</b>						

\* Note : standard receptacles are fitted with male contacts, plug are fitted with female contacts.

Part number example : **871-2 A 3-12 P1B** oval flange receptacle type 2, with backnut type A, shell 3, connector with 12 crimp male contacts P, obligatory suffix **1B**

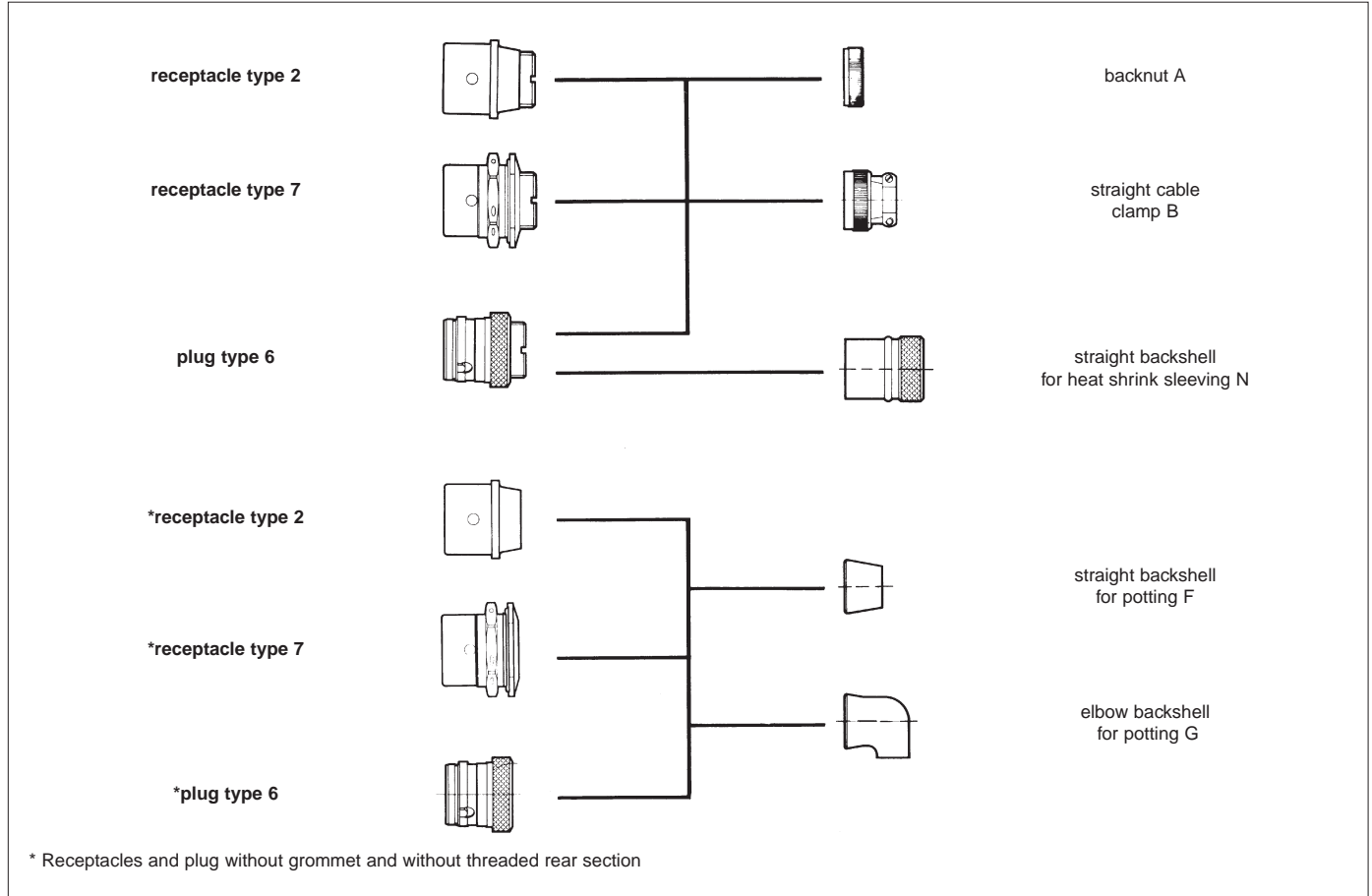
### Hermetic connectors

<b>basic series</b>	<b>87</b>	<b>3 - 7</b>	<b>0</b>	<b>3 - 12</b>	<b>P</b>	<b>2B</b>
<b>class</b>	3 - hermetic					
<b>shell type</b>	7 - jam nut receptacle 4 - solder mounted receptacle					
	0 - not accepting backshell					
<b>shell size</b>	2-3-4					
<b>contact layouts</b>	see table p 182					
<b>contact type</b>	P - solder male contact					
<b>obligatory suffix</b>						

Part number example : **873-703-12P 2B** jam nut hermetic receptacle type 7, not accepting backshell, shell 3, connector with 12 solder male contacts, obligatory suffix **2B**



## Shell styles Environmental version



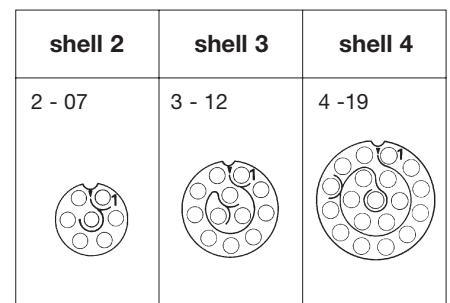
## hermetic version



## Contacts

description	type	part number	Ø (mm)	wire sizes				external Ø over insulator (mm)	
				gauge	AWG	admissible section (mm <sup>2</sup> )		min	Max
				min	Max	min	Max	min	Max
	male crimp	8700-739	0.64	28	22	0.095	0.38	0.79	1.37
	female crimp	8700-812	0.64	28	22	0.095	0.38	0.79	1.37
	polarizing pin	8700-741	is installed instead of a male contact						
	filler plug	8700-108	this part used to seal unwired contact is mounted from rear of contact fitted in cavity						

## Contact layouts

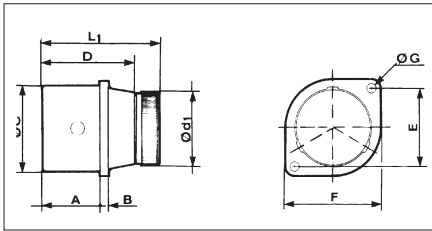


viewed from front face of male insulator

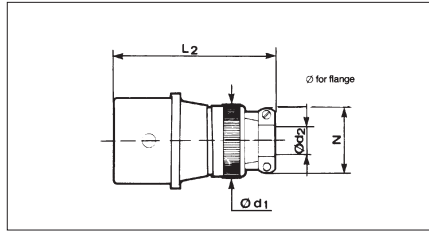


## Dimensions

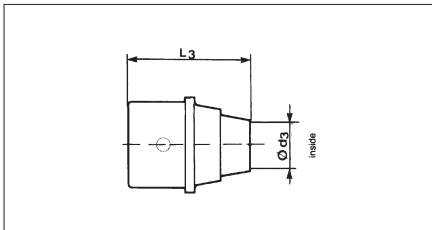
receptacle type 871 - 2A



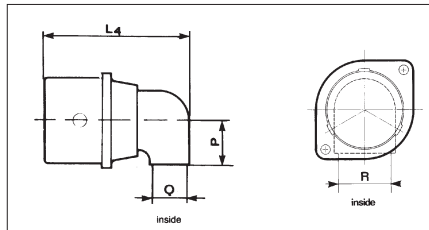
receptacle type 871 - 2B



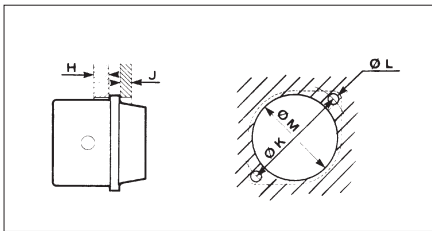
receptacle type 871 - 2F



receptacle type 871 - 2G

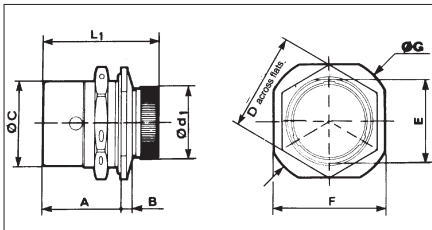


panel cut-out

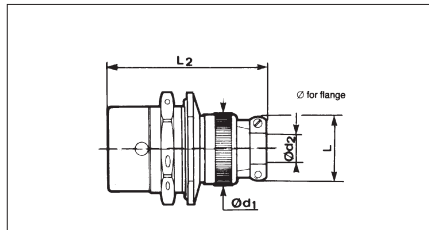


shells	2	3	4
A Max	9.50 .374	10.20 .402	10.50 .413
B Max	1.55 .061	1.55 .061	1.55 .061
C Max	10.85 .427	12.85 .506	15.30 .602
D Max	15.85 .624	16.55 .652	16.85 .663
E	9.85 .388	11.50 .453	14.10 .555
F Max	12.95 .510	14.60 .575	17.20 .677
G Max	1.75 .069	1.75 .069	1.75 .069
H Max	3.50 .138	3.50 .138	3.00 .118
J Max	3.50 .138	3.50 .138	3.50 .138
K	13.93 .548	16.25 .640	19.94 .785
L	1.80 .071	1.80 .071	1.80 .071
M	11.00 .433	13.00 .512	15.40 .606
N Max	8.10 .319	10.20 .402	11.80 .465
P Max	5.55 .219	6.75 .266	7.95 .313
Q Max	3.50 .138	4.50 .177	5.80 .228
R Max	5.50 .217	7.50 .295	9.20 .362
L1 Max	20.10 .791	20.75 .817	21.10 .831
L2 Max	26.50 1.043	27.20 1.071	28.50 1.122
L3 Max	22.15 .872	22.85 .900	23.65 .931
L4 Max	23.80 .937	26.00 1.024	27.95 1.100
d1 Max	8.80 .346	10.80 .425	12.90 .508
d2 min	2.05 .081	2.85 .112	3.75 .148
d2 Max	4.10 .161	6.10 .240	7.35 .289
d3 Max	4.55 .179	6.55 .258	8.10 .319

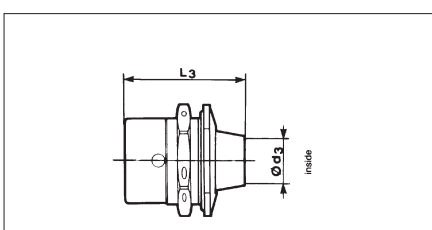
receptacle type 871 - 7A



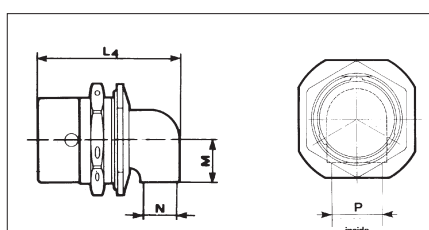
receptacle type 871 - 7B



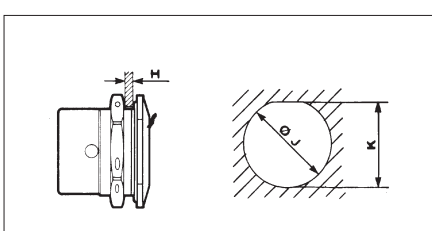
receptacle type 871 - 7F



receptacle type 871 - 7G



panel cut-out

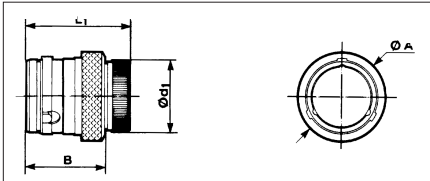


shells	2	3	4
A Max	13.70 .539	14.40 .567	14.70 .579
B Max	2.15 .085	2.15 .085	2.15 .085
C Max	10.85 .427	12.85 .506	15.30 .602
D Max	14.00 .551	16.00 .630	18.00 .709
E Max	11.50 .453	13.50 .531	15.70 .618
F Max	16.00 .630	18.40 .724	20.40 .803
G Max	19.00 .748	21.50 .846	23.50 .925
H min	1.25 .049	1.25 .049	1.25 .049
H Max	5.50 .217	5.50 .217	5.50 .217
J	12.10 .476	14.10 .555	16.10 .634
K	11.60 .457	13.60 .535	15.80 .622
L Max	8.10 .319	13.60 .535	11.80 .465
M Max	5.55 .219	6.75 .266	7.95 .313
N Max	3.50 .138	4.50 .177	5.80 .228
P Max	5.50 .217	7.50 .295	9.20 .362
L1 Max	20.10 .791	20.75 .817	21.10 .831
L2 Max	26.50 1.043	27.20 1.071	28.50 1.122
L3 Max	22.15 .872	22.85 .900	23.65 .931
L4 Max	23.80 .937	26.00 1.024	27.95 1.100
d1 Max	8.80 .346	10.80 .425	12.90 .508
d2 min	2.05 .081	2.85 .112	3.75 .148
d2 Max	4.10 .161	6.10 .240	7.35 .289
d3 Max	4.55 .179	6.55 .258	8.10 .319

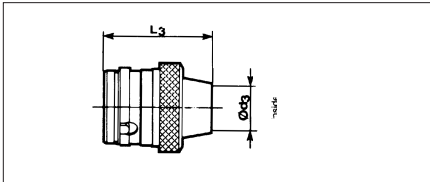


## Dimensions

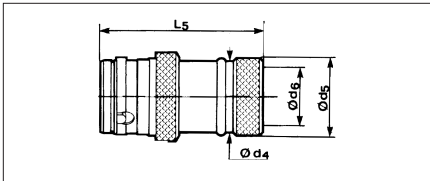
### plug type 871 - 6A



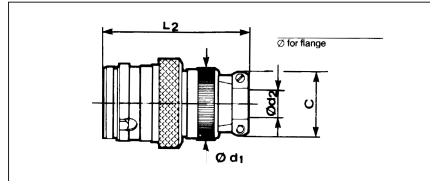
### plug type 871 - 6F



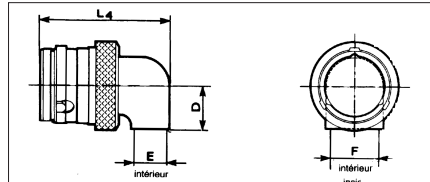
### plug type 871 - 6N



### plug type 871 - 6B

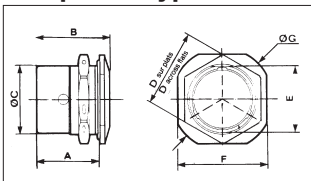


### plug type 871 - 6G

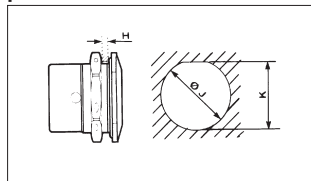


shells	2	3	4
<b>A Max</b>	11.80 .465	13.80 .543	16.25 .640
<b>B Max</b>	15.95 .628	15.95 .628	15.95 .628
<b>C Max</b>	8.10 .319	10.20 .402	11.80 .465
<b>D Max</b>	5.55 .219	6.75 .266	7.95 .313
<b>E Max</b>	3.50 .138	4.50 .177	5.80 .228
<b>F Max</b>	5.50 .217	7.50 .295	9.20 .362
<b>L1 Max</b>	18.55 .730	18.55 .730	18.55 .730
<b>L2 Max</b>	25.00 .984	25.00 .984	25.00 .984
<b>L3 Max</b>	19.50 .768	19.50 .768	19.50 .768
<b>L4 Max</b>	21.20 .835	22.70 .894	24.30 .957
<b>L5 Max</b>	28.30 1.114	30.30 1.193	31.30 1.232
<b>d1 Max</b>	8.80 .346	10.80 .425	12.90 .508
<b>d2 min</b>	2.05 .081	2.85 .112	3.75 .148
<b>d2 Max</b>	4.10 .161	6.10 .240	7.35 .289
<b>d3 Max</b>	4.55 .179	6.55 .258	8.10 .319
<b>d4 Max</b>	8.80 .346	10.80 .425	12.80 .504
<b>d5 Max</b>	10.20 .402	12.30 .484	14.30 .563
<b>d6 Max</b>	7.50 .295	9.50 .374	11.50 .453

### receptacle type 873 - 70

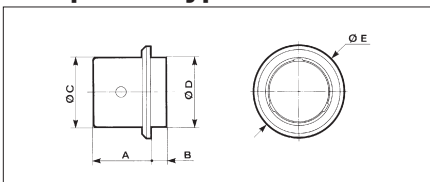


### panel cut-out

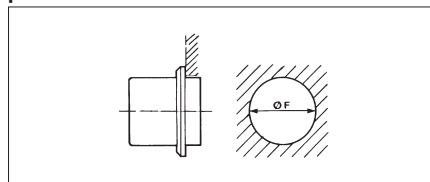


shells	A	B	C	D	E	F	G	H		J	K
	Max							min	Max		
<b>2</b>	13.70 .539	15.40 .606	10.85 .427	14.00 .551	11.50 .453	16.00 .630	19.00 .748	1.25 .049	5.50 .217	12.10 .476	11.60 .457
<b>3</b>	14.40 .567	16.10 .634	12.85 .506	16.00 .630	13.50 .531	18.40 .724	21.50 .846	1.25 .049	5.50 .217	14.10 .555	13.60 .535
<b>4</b>	14.70 .579	16.40 .646	15.30 .602	18.00 .709	15.70 .618	20.40 .803	23.50 .925	1.25 .049	5.50 .217	16.10 .634	15.80 .622

### receptacle type 873 - 40



### panel cut-out



shells	A	B	C	D	E	F
<b>2</b>	11.90 .469	3.60 .142	10.85 .427	10.85 .427	16.10 .634	11.00 .433
<b>3</b>	12.60 .496	3.60 .142	12.85 .506	12.85 .506	18.10 .713	13.00 .512
<b>4</b>	12.90 .508	3.60 .142	15.30 .602	15.30 .602	20.50 .807	15.50 .610

## Crimping tools

contact size	wire size		part numbers	
	mm <sup>2</sup>	AWG	crimping tool	locator
24	0.095	28	8476-01 (M22520/2-01)	8700-48
	to	to		
	0.38	22		

### Insertion of contacts

- disposable plastic tool : 8572 - 1123
- contact insertion tool : 8700 - 35
- guide needle for female contacts : 8700 - 548

### extraction of contacts

- extraction tool : 8700 - 36
- spare tube : 8700 - 530

### handling tools (mated and unmated)

- straight tool for coupling and uncoupling connectors : 8700 - 33
- 90° angle tool for coupling and uncoupling connectors : 8700 - 34