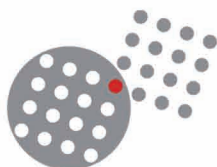




# 8533 - ABS Power Series



**SOURIAU**  
Connection Technology



# 8533 - ABS Power Series

## SOURIAU

### Connectors and interconnect systems for severe environments

The company designs, manufactures and markets high performance interconnect solutions for severe environments from industrial broadband and universal ranges to complex system with integrated functions: filtering, high speed data transmission, hermetic seal, separation mechanism, remote handling, underwater mating, ...



Industrial



Aeronautical



Equipment & System

The dedicated end markets for SOURIAU's products are aeronautical, defense-space and industrial



Railway  
Geophysics  
Manufacturing environment  
Instrumentation  
Automation & process



Civil & military aircraft  
Helicopter  
Weapon delivery system  
Avionics



Military marine  
Communications  
Satellites  
Launcher & missile

SOURIAU was established in 1977 and has been created by successive acquisitions of the industrial, aeronautical, defense and space activities of SOURIAU, JUPITER and BURNDY.

The Group's products are engineered and manufactured in the USA and Dominican Republic, Europe and Morocco, Japan and India, and sold by a worldwide sales and marketing organization, and in addition to SOURIAU's offices, a large network of licensed distributors and agents.

SOURIAU complies with most of national and international Quality Assurance Standards, production unit with ISO 14001

Quality Certificate  
Management System

ISO 9001

Environment Certificate  
Management System

ISO 14001

Quality Certificate  
Management System

Aeronautic Industry : EN 9100



# 8533 - ABS Power Series



## Presentation

8533 power series is a range extension of standard aeromil product line to address high power supply in Harsh environment for civil and military aeronautics market.

Thanks to its unique contact design (socket with a braid) these products can be used wherever very high power supply is required in environment where vibration and temperature are high.

Typical applications can be motor of electro hydraulic or electro mechanical actuators (located on Aircraft wings and tail or in the thrust reverser actuation system).

8533 range features 5 different layouts in 4 shell sizes (stainless steel or aluminum) with contacts from size 6 to size 4 enabling current rating up to 80 Amps. Some hermetic version are also available.

## Contents

- Technical features ..... 4
- Ordering information ..... 7
- Dimensions ..... 9
- Hermetic versions ..... 10
- Backshells ..... 12
- Contacts and sealing boot ..... 13
- Tooling ..... 14

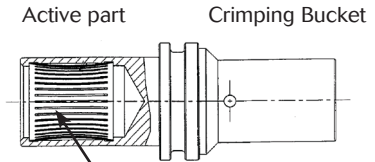
# 8533 - ABS Power Series



## Technical features and benefits

### A unique contact design with a braid socket

- Enabling 20 contact points for a size 4 contact vs 2 or 3 for a standard socket,
- Allowing 20 % more intensity as compared to standard socket,
- Excellent vibration withstanding,
- Insure excellent crimping (crimping bucket can be heat treated to insure good plasticity without affecting the active part elasticity insured by the braid - added after heat treatment).



Braid : active part of the socket

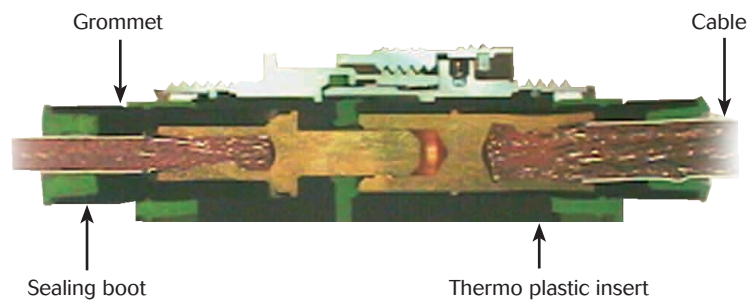
20 contact points on the pin for a #4 contact



Cut of a contact mated pair

### A versatile individual sealing on the cable

- Sealing on the cable done thanks to a sealing boot,
- Same connector can accommodate a wide range of cable diameter.



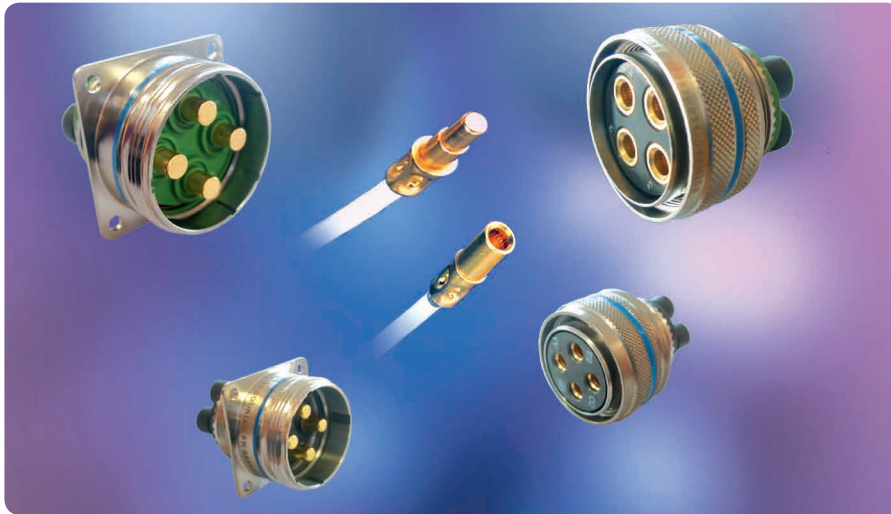
Longitudinal cut of a connector

### A contact technology integrated in well proven standard aeromil connectors

- Up to 260°C service temperature,
- Up to 43G vibration withstanding.



# 8533 - ABS Power Series



## Description

- Range extension of the EN2997-ESC 10 standards for **High Power Supply**
  - Screw coupling.
  - Removable crimp contacts for up to **80 Amps** (#4).
  - High vibrations resistant.
  - **High temperature resistant** (up to 260°C for some layouts).
- **ABS compliant**  
(ABS 1340-1343, 1426-1427)
- **Versatile individual sealing** on the cable:
  - Sealing through a sealing boot.
  - Various range of cable diameter accommodated by the same connector.
- **Fluid resistant** providing **maximum protection** against fuel, oils, etc.
- **Hermetic and quadrax** version available.
- **Titanium version** available for light and robust solutions.

## Applications

- Electro mechanical actuator power supply, alternator, starter applications.

## Technical features

### Mechanical

- **Shell:** Aluminum alloy (class R-W), Stainless steel (class E-K), Titanium (Class TT or TF).
- **Plating:** Nickel, black anodized, olive green cadmium, passivated, without plating.
- **Grommet and seal:** silicon elastomer.
- **Insulator:** Thermoplastic.
- **Contact body:** Copper Alloy.
- **Contact plating:** Gold Over Nickel.
- **Contact retention:**  
# 4 : 200N, # 6 : 156 N
- **Endurance:**  
500 mating / unmating operation.
- **Vibration & shock:**  
according to EN 2997.

### Electrical

- **Dielectric withstanding:**

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

- **Insulation Resistance:**  
5000 Mh under 500 Vdc.
- **Max current rating per contact:**  
# 4 : 80 A.  
# 6 : 60 A.
- **Contact resistance:** 1 mΩ.
- **Electrical continuity:**  
5mh with RFI shielding.
- **Shielding:** to 100 MHz at 1 GHz  
Attenuation  $\geq$  65dB.

### Environmental

- **Temperature range:**
  - 60°C+175°C class W,
  - 60°C +200°C class R, A and K and TF,
  - 60°C +260°C class E and TT.
- **Leakage: low pressure immersion.**  
L 54001 and interfacial sealing:  
pressure 2 kpa.
- **Damp Heat:** as per EN2997 10 cycles of 24 hours.
- **Salt Spray:** 48 hours (class A-R-K-E), 500 hours (class W).
- **Fire resistance:** as per EN 2997 (Class E, K).

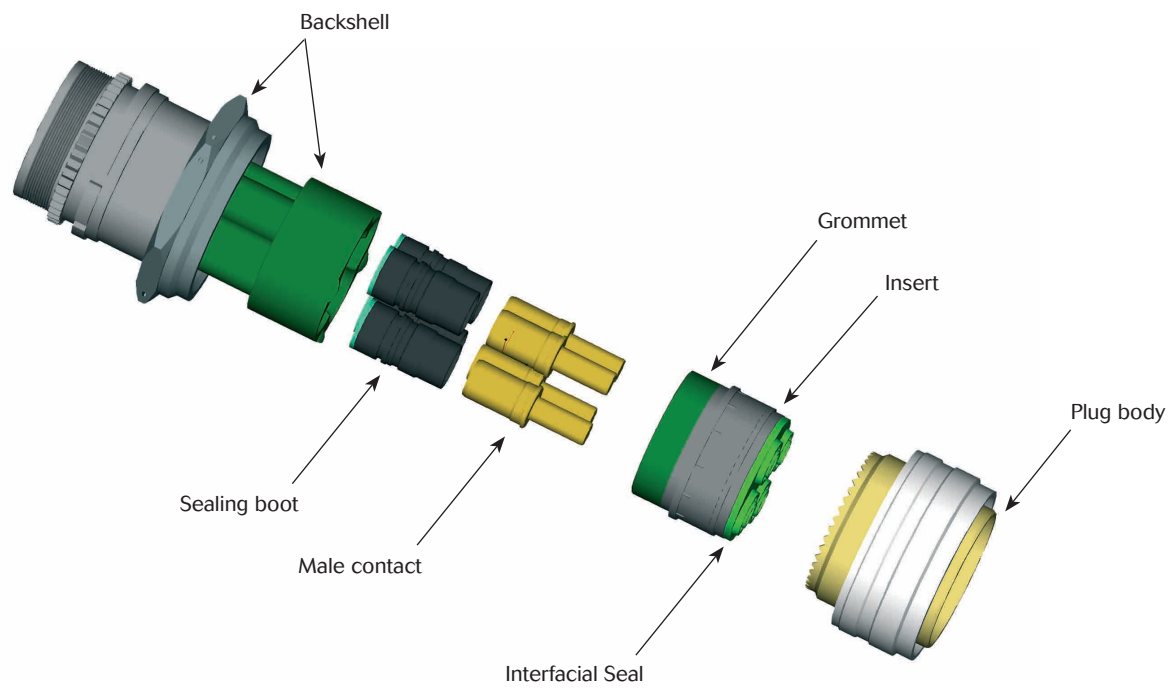
### Resistance to fluid

MIL-H 5606 - SKYDROL 500 B4-LD4  
JP5-MIL-L7870A - MIL L 23699  
MIL-L 7808 - MIL C 25769 -  
MIL-A 8243.

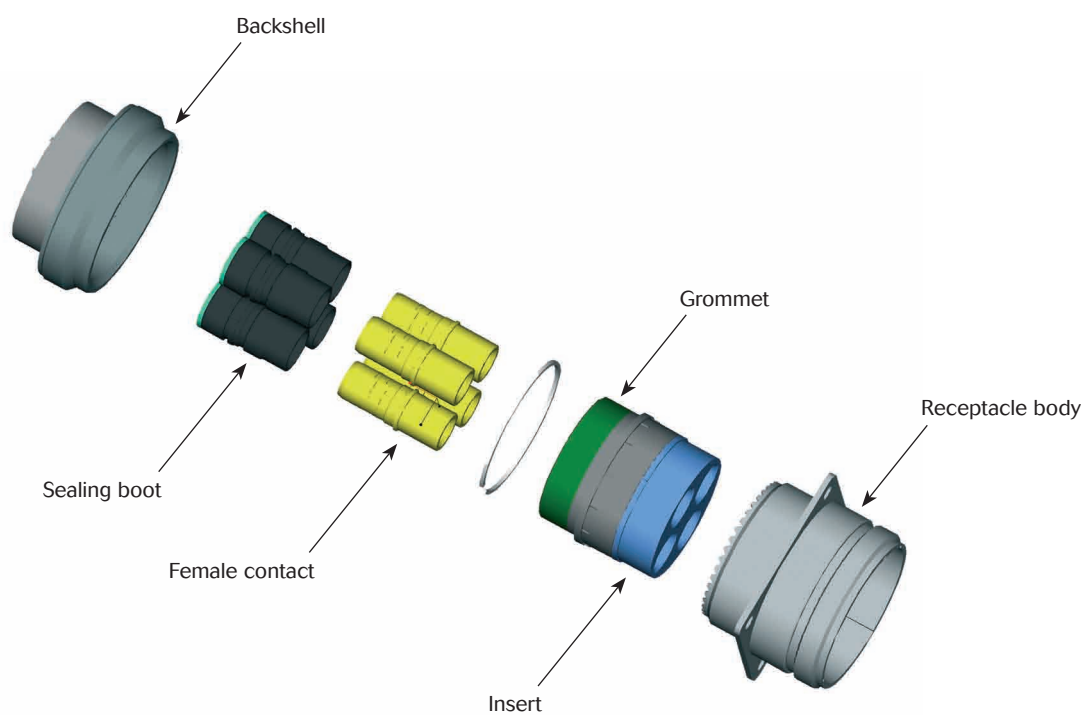


# 8533 - ABS Power Series

Male plug with backshell 3D view



Female receptacle with backshell 3D view



# 8533 - ABS Power Series



## Ordering information

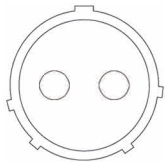
Racine / Basic Series	8533	0	R	S	24	04	P	N	L
<b>Shell type:</b> 0: Square flange receptacle 3: Plug with RFI shielding 7: Jam nut receptacle									
<b>Plating (according shell material - see below):</b>									
<b>Aluminum shell:</b> W: Olive green cadmium 175°C R: Nickel 200°C A: Black anodized 200°C									
<b>Stainless steel shell:</b> K: Corrosion resistant 200°C E: Nickel 260°C									
<b>Titanium shell:</b> TT: Without plating 260°C TF: Nickel 200°C									
<b>Hermetics:</b> Y: Shell 20 & 24									
S: with 360° teeth									
Shell size: 18 - 20 - 24 - 28									
Contact layout: see table below.									
<b>Contact type:</b> P: Pin S: Socket									
Orientation: N - 6 - 7 - 8 - 9 - Y									
<b>Specification:</b> 109: with contact #4 for cable #6 + sealing boot (layout 24-04) 115: with contact #4 for cable #8 + sealing boot (layout 24-04) 121: with contact #6 for cable #10/12 + sealing boot (layouts 18-02, 20-04, 28-06) 125: with contact quadrax + sealing boot (layouts 18-02, 20-04, 28-06) 126: with backshell, without contact and sealing boot (layouts 18-02, 20-04, 24-04, 28-06) 136: with contact #6 for cable #6 + sealing boot (layouts 18-02, 20-04, 28-06) 138: with contact #6 for cable #8 + sealing boot (layouts 18-02, 20-04, 28-06) L: without contact and sealing boot									

# 8533 - ABS Power Series



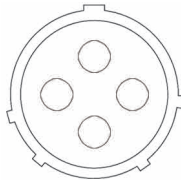
## Layouts

18-02



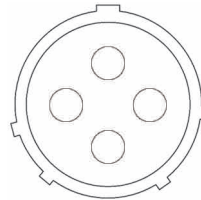
2 contacts size 8  
Quadrax version only

20-04



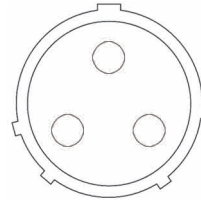
4 contacts size 6\*

24-04



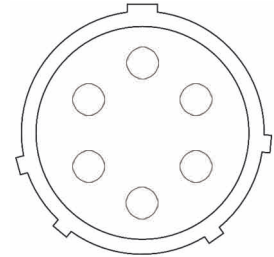
4 contacts size 4

24-03



3 contacts size 6\*  
Power version only

28-06



6 contacts size 6\*

\* Quadrax version available.

## ABS cross reference

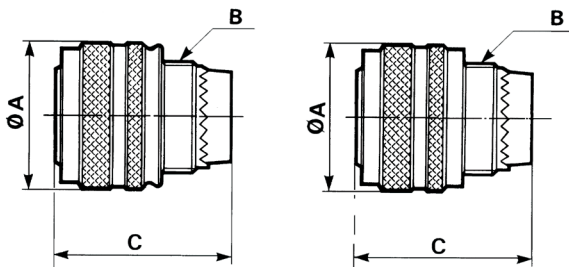
	Circular plug		Receptacle square Flange	
	SOURIAU Reference	ABS Reference	SOURIAU Reference	ABS Reference
Aluminium Version	8533 3RS2004PNL	ABS 1343 C-2004 NF	8533 ORS2004PNL	ABS 1426 C-2004 NF
	8533 3RS2004PN 126	ABS 1343 P-2004 NF	8533 ORS2004PN 126	ABS 1426 P-2004 NF
	8533 3RS2004SNL	ABS 1343 D-2004 NF	8533 ORS2004SNL	ABS 1426 D-2004 NF
	8533 3RS2004SN 126	ABS 1343 S-2004 NF	8533 ORS2004SN 126	ABS 1426 S-2004 NF
	8533 3RS2404PNL	ABS 1343 C-2404 NF	8533 ORS2404PNL	ABS 1426 C-2404 NF
	8533 3RS2404PN 126	ABS 1343 P-2404 NF	8533 ORS2404PN 126	ABS 1426 P-2404 NF
	8533 3RS2404SNL	ABS 1343 D-2404 NF	8533 ORS2404SNL	ABS 1426 D-2404 NF
	8533 3RS2404SN 126	ABS 1343 S-2404 NF	8533 ORS2404SN 126	ABS 1426 S-2404 NF
	8533 3RS2806PNL	ABS 1343 C-2806 NF	8533 ORS2806PNL	ABS 1426 C-2806 NF
8533 3RS2806PN 126	ABS 1343 P-2806 NF	8533 ORS2806PN 126	ABS 1426 P-2806 NF	
8533 3RS2806SNL	ABS 1343 D-2806 NF	8533 ORS2806SNL	ABS 1426 D-2806 NF	
8533 3RS2806SN 126	ABS 1343 S-2806 NF	8533 ORS2806SN 126	ABS 1426 S-2806 NF	
Stainless Steel	8533 3ES2004PNL	ABS 1340 C-2004 NF	8533 OES2004PNL	ABS 1427 C-2004 NF
	8533 3ES2004PN 126	ABS 1340 P-2004 NF	8533 OES2004PN 126	ABS 1427 P-2004 NF
	8533 3ES2004SNL	ABS 1340 D-2004 NF	8533 OES2004SNL	ABS 1427 D-2004 NF
	8533 3ES2004SN 126	ABS 1340 S-2004 NF	8533 OES2004SN 126	ABS 1427 S-2004 NF
	8533 3ES2806PNL	ABS 1340 C-2806 NF	8533 OES2806PNL	ABS 1427 C-2806 NF
	8533 3ES2806PN 126	ABS 1340 P-2806 NF	8533 OES2806PN 126	ABS 1427 P-2806 NF
	8533 3ES2806SNL	ABS 1340 D-2806 NF	8533 OES2806SNL	ABS 1427 D-2806 NF
	8533 3ES2806SN 126	ABS 1340 S-2806 NF	8533 OES2806SN 126	ABS 1427 S-2806 NF



# 8533 - ABS Power Series

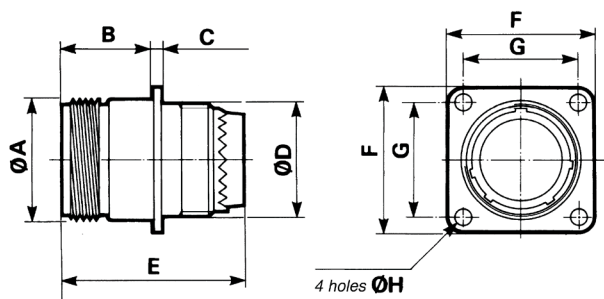


## Dimensions plug type 3 ABS 1340 - 1343



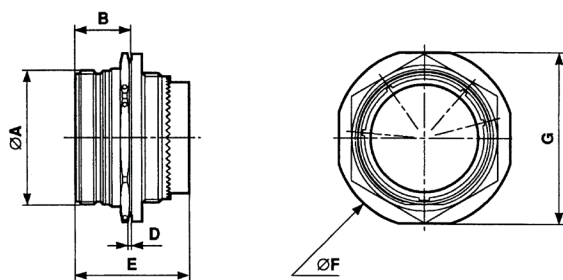
Shell size	20	24	28
A max	41,91	47,24	52,00
B (thread)	1-3/16 18 UNEF 2A	1- 7/16 18 UNEF 2A	1-3/4 18 UNEF 2A
C max	34,50	34,50	34,50

## Dimensions receptacle type 0 ABS 1426 - 1427



Shell size	20	24	28
A max	33,32	39,67	45,99
B max	18,35	18,35	18,35
C max	1,45	1,45	1,45
D max	30,12	36,47	44,41
E max	36,00	36,00	36,00
F max	36,63	43,88	50,83
G	29,36	34,92	39,67
H max	3,10	3,90	3,90

## Dimensions receptacle type 7



Shell size	20	24
A max	33,32	39,67
B max	19,84	19,84
D min	3,18	3,18
D max	1,57	1,57
E max	36,00	36,00
F max	49,63	55,42
G max	44,86	52,81



# 8533 - ABS Power Series

## Hermetic jam nut receptacle shell size 20



### Technical features

#### Mechanical

- Shell: Stainless steel.
- Plating: Passivated.
- Interfacial seal: silicon elastomer.
- Insulator: Glass.
- Contact body: Gold Plated steel.

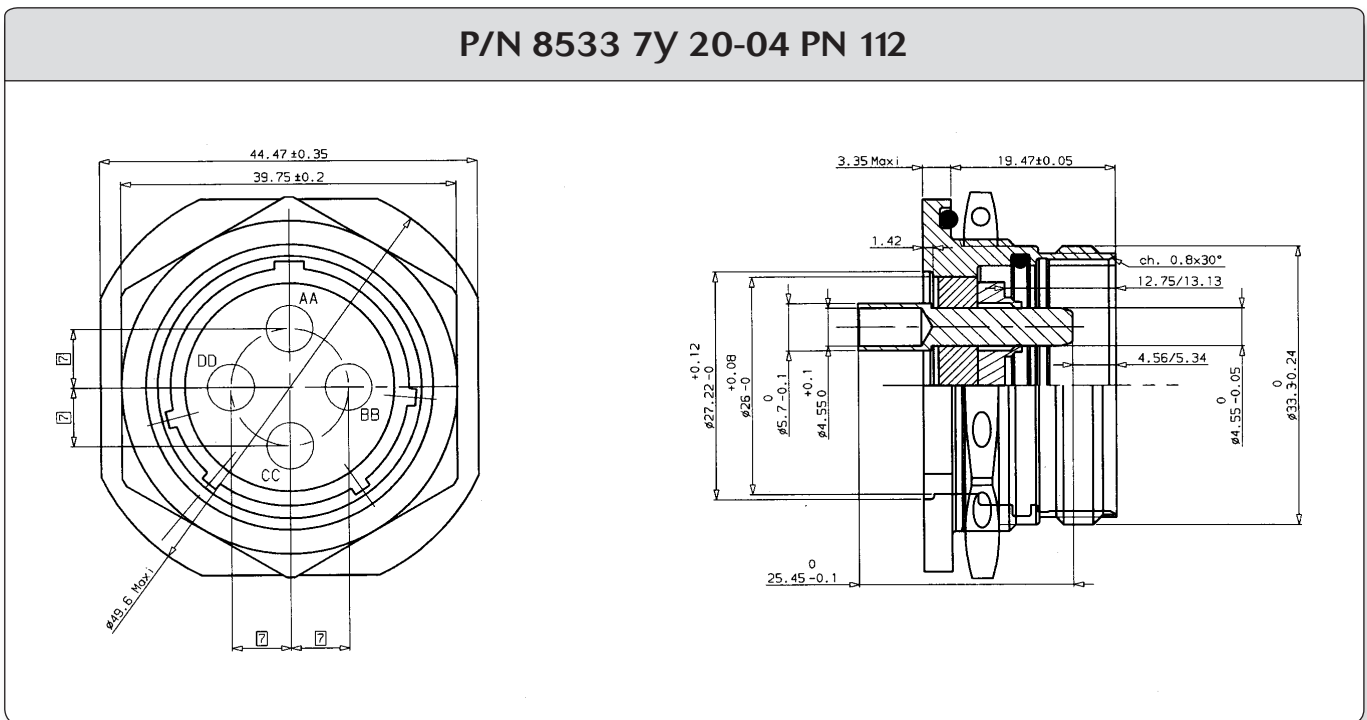
#### Electrical

- Max current rating: 46 A.

#### Environmental

- Temperature range: -65 °C + 200 °C.
- Leakage rate: 1.10-9.
- Salt Spray: 48 h.

### P/N 8533 7Y 20-04 PN 112





# 8533 - ABS Power Series

## Hermetic jam nut receptacle shell size 24



### Technical features

#### Mechanical

- Shell: Stainless steel.
- Plating: Passivated.
- Interfacial seal: silicon elastomer.
- Insulator: Glass.
- Contact body: Gold Plated steel.

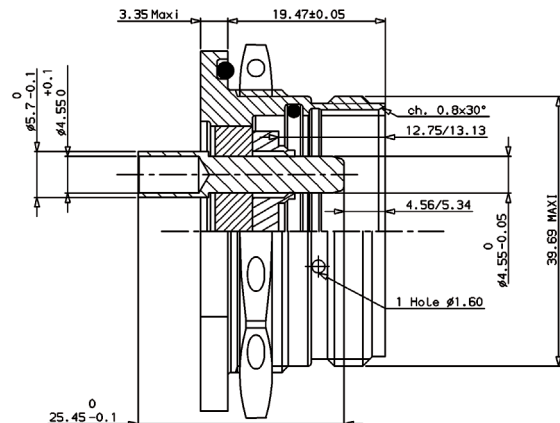
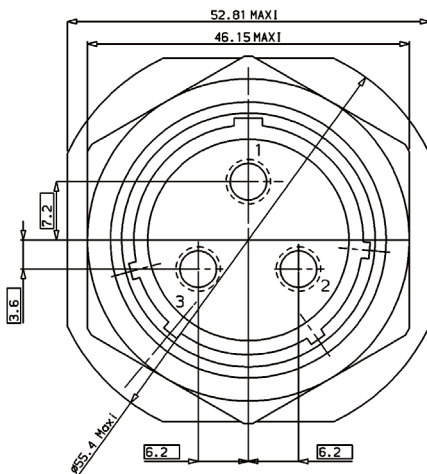
#### Electrical

- Max current rating: 46 A.

#### Environmental

- Temperature range: -65 °C + 200 °C.
- Leakage rate: 1.10-9.
- Salt Spray: 48 h.

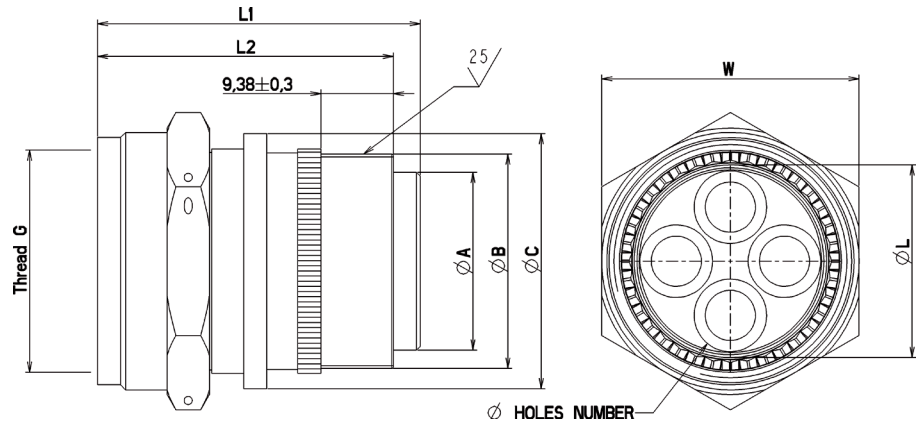
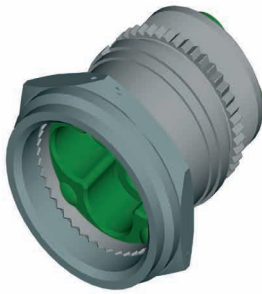
### P/N 8533 7Y 24-03 PN 112



# 8533 - ABS Power Series



## Strain relief backshell ABS 1452



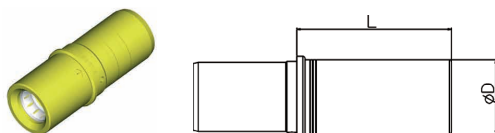
Layout code	Souriau Ref.	ABS Ref.	ØA	ØB	ØC	ØL	ØL1	ØL2	W	Number of holes	Thread Class 2B	Mass (g)
20-04 Alu	8533 8250	ABS 1452 A 2004	22.94	27.72	30.12	24.1	41.78	38.28	33.21	4	1.1875-18 UNEF	73
20-04 Stainless Steel	8533 8281	ABS 1452 A 2004										
24-04 Alu	8533 8223	ABS 1452 A 2404	29.8	33.71	38	31.2	48.8	46.28	45	4	1.7/16/18 UNEF	95
24-04 Stainless Steel	Consult us	ABS 1452 A 2404										
28-06 Alu	8533 8245	ABS 1452 A 2806	34.74	39.7	44.4	37.7	41.78	38.28	47.49	6	1.7500-18 UNS	116
28-06 Stainless Steel	8533 8288	ABS 1452 A 2806										

# 8533 - ABS Power Series

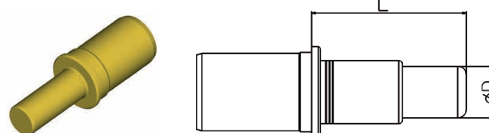


## Contacts

Socket contact ABS 1344

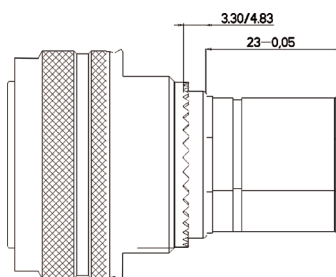


Socket contact ABS 1403



Contact size	Contact type	Souriau reference	ABS reference	Cable			Dimensions	
				Conductor size (mm <sup>2</sup> )	AWG	Material	L Max (mm)	D Max (mm)
4	Male	8533-8202	ABS 1403 104KZ06	9 & 14	8 & 6	Copper	14,55	5,74
4	Male	8533-8201	ABS 1403 104KZ04	22	4	Copper	14,55	5,74
4	Female	8533-8171	ABS 1344 104LZ06	9 & 14	8 & 6	Copper	11,15	9,6
4	Female	8533-8120	ABS 1344 104LZ04	22	4	Copper	11,15	9,6
6	Male	8533-8246	ABS 1403 1K6LZ06	14	6	Copper	13,7	4,59
6	Male	8533-8272	ABS 1403 1K6LZ08	9	8	Copper	13,7	4,59
6	Male	8533-8248	ABS 1403 1K6LZ10	5 & 3	10 & 12	Copper	13,7	4,59
6	Female	8533-8247	ABS 1344 1K6LZ06	14	6	Copper	15,3	7,33
6	Female	8533-8273	ABS 1344 1K6LZ08	9	8	Copper	15,3	7,33
6	Female	8533-8249	ABS 1344 1K6LZ10	5 & 3	10 & 12	Copper	15,3	7,33

## Sealing boot ABS 0992



Contact size	Cable AWG	Cable material	SOURIAU Part Number Class 200 °C	ABS Part Number Class 200 °C	SOURIAU Part Number Class 260 °C	ABS Part Number Class 260 °C	A	B
6	6	Copper	8533-8296	ABS0992-A 03	8533-8308	Consult us	3.30 to 4.83	13 max
6	8	Copper	8533-8236	ABS0992-A 05	8533-8307	Consult us	3.30 to 4.83	13 max
6	10 to 12	Copper	8533-8287	ABS0992-A 02	8533-8306	Consult us	3.30 to 4.83	13 max
6	quad ABS0973 / 0974	Copper	8533-8236	ABS0992-A 01			3.30 to 4.83	13 max
4	4	Copper	8599-4591	ABS0992C04	Consult us	Consult us	3.30 to 4.83	23±0.005
4	6	Copper	8533-8163	ABS0992C05	Consult us	Consult us	3.30 to 4.83	23±0.005
4	8	Copper	8533-8163	ABS0992C05	Consult us	Consult us	3.30 to 4.83	23±0.005
4	10 to 12	Copper	8533-8262		Consult us	Consult us	3.30 to 4.83	23±0.005

### Filler plug

4	4	Blue PTFE	8533-8253	ASNE0616BC0400 ASNE0616BB0400	Consult us	Consult us	3.30 to 4.83	23±0.005
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# 8533 - ABS Power Series



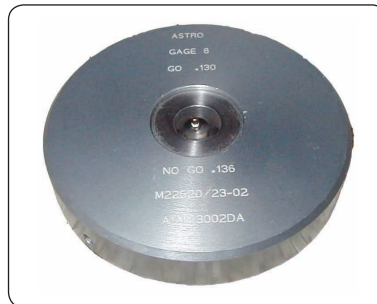
## Tooling

Contact size	Contact type	Contact reference	Cable			Crimping tool	Die set	Locator	Sealing boot extraction tool
			Conductor size (mm <sup>2</sup> )	AWG	Cable material	Pneumatic			
4	Male	8533-8202	9 & 14	8 & 6	Copper	M22520/23-01	M22520/23-02	8533-8141	8533-8193
4	Male	8533-8201	22	4	Copper	M22520/23-01	M22520/23-04	8533-8141	8533-8193
4	Female	8533-8171	9 & 14	8 & 6	Copper	M22520/23-01	M22520/23-02	8533-8141	8533-8193
4	Female	8533-8120	22	4	Copper	M22520/23-01	M22520/23-04	8533-8141	8533-8193
6	Male	8533-8246	14	6	Copper	M22520/23-01	M22520/23-03	8530-2036	8530-1603
6	Male	8533-8272	9	8	Copper	M22520/23-01	M22520/23-02	8530-2036	8530-1603
6	Male	8533-8248	5 & 3	10 & 12	Copper	M22520/23-01	WA23-112DA	8530-2036	8530-1603
6	Female	8533-8247	14	6	Copper	M22520/23-01	M22520/23-03	8530-2037	8530-1603
6	Female	8533-8273	9	8	Copper	M22520/23-01	M22520/23-02	8530-2037	8530-1603
6	Female	8533-8249	5 & 3	10 & 12	Copper	M22520/23-01	WA23-112DA	8530-2037	8530-1603

### Pneumatic tool



Crimping tool (M 22520/23-01)



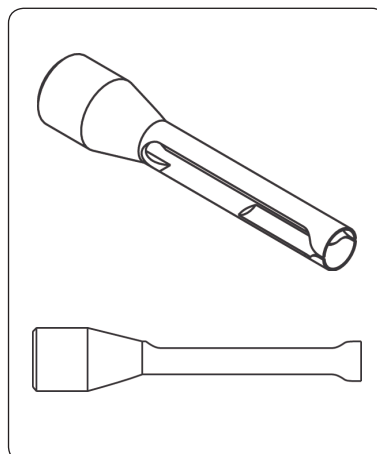
Die Set (M 22520/23-02)



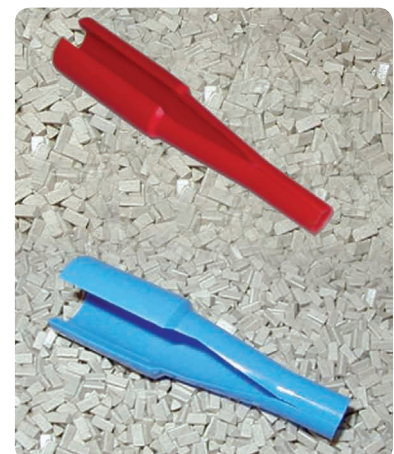
Locator

### Extraction tool

Contact size	Material	Part number
06	Plastic	M 811969/14-06 (red)
	Metallic	8660-197
04	Plastic	M 811969/14-07 (blue)
	Metallic	8533-8175

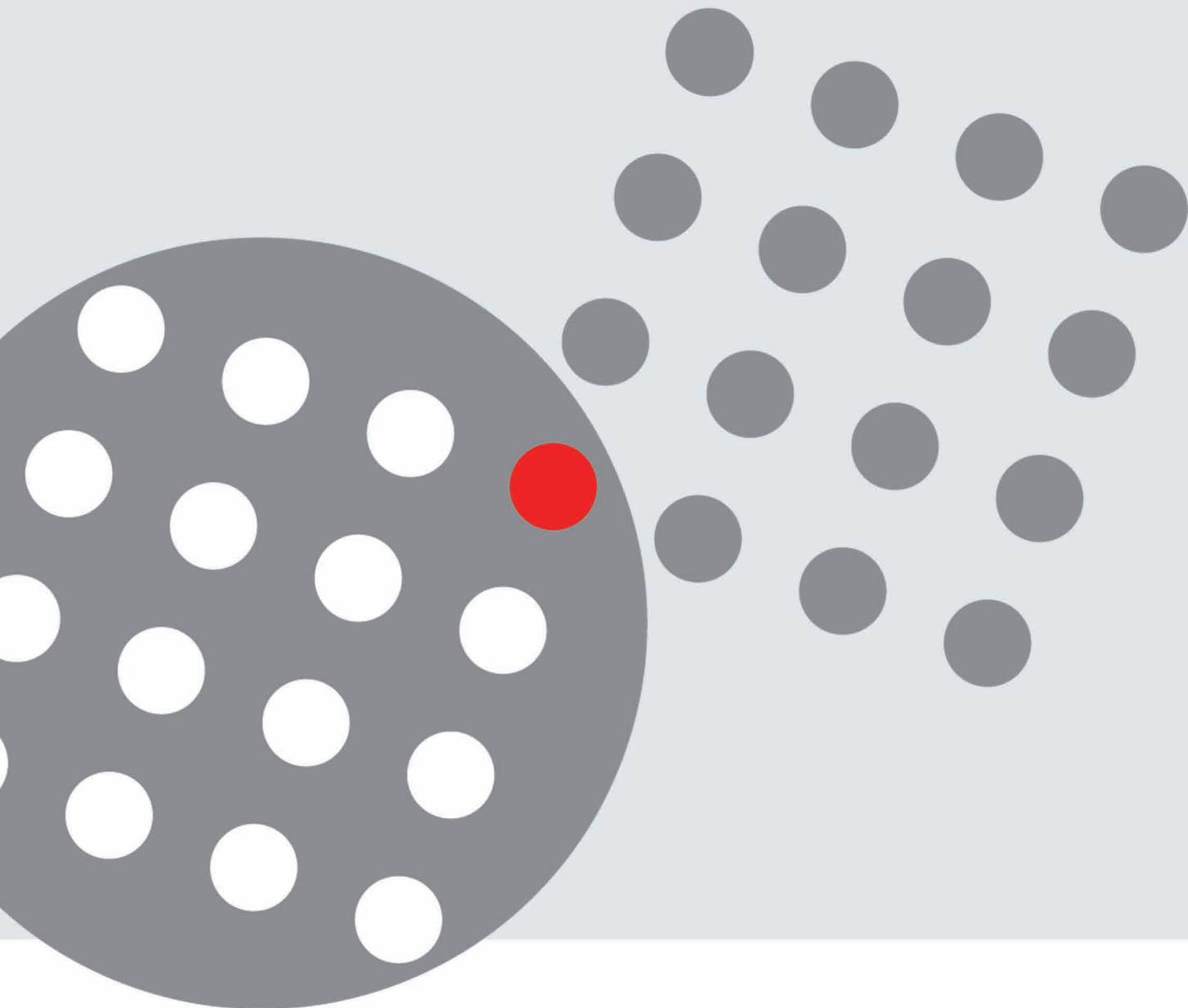


Metallic extraction tool

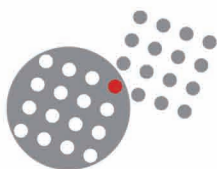


Plastic extraction tool





[www.souriau.com](http://www.souriau.com)  
[contactmilaero@souriau.com](mailto:contactmilaero@souriau.com)



**SOURIAU**  
Connection Technology





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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