8D Series
Power Contacts

SOURIAU

Power Supply in Harsh Environments

Contacts designed to be used in severe environments. Resistant to fluids, high shock and vibration.

A wide range
- All shell materials and platings: from composite to stainless steel.
  Hermetic version available.

Contact performance
- High current: 20% more intensity compared to standard contacts.
  #4 contact: 80A typical, #8 contact: 45A typical.
  High vibration and temperature level.

Large choice of layouts
- 7 layouts with only #4 or only #8 contacts.
  12 mixed layouts available with power contacts.

User friendly
- Easy maintenance with removable contacts.
  Bus bar termination available.

Esterline
Connection Technologies

Description

- Quick screw coupling connector with removable crimp contact
- Shell available in aluminum, composite, Stainless steel, Titanium & Bronze
- Six layouts with different current rating
- Consult us for power hermetic version
- High Power offer available on demand
- Derating curves available for #4 and #8.

Technical features

Mechanical

- **Shell:** Aluminum alloy, Composite, Bronze, Stainless steel, Titanium
- **Plating:**
  . Olive green cadmium (W/J)
  . Nickel (F/M/TF/S)
  . Without plating (X for composite, TT for titanium and JVS for Bronze)
  . Passivated (K)
- **Grommet and seal:** Silicon elastomer
- **Insulator:** Thermoset
- **Contact body:** Copper Alloy
- **Contact retention:**
  . #4 = 200N
  . #8 = 111N
- **Shock:** 300g during 3ms
- **Endurance:**
  500 mating / unmating operations
- **Vibration:** As per MIL DTL 38999

Electrical

- **Dielectric withstanding:**
  Test voltage rating (Vrms)

Service	Sea level	at 21 000 m
M	1 300	800
I	1 800	1 000

- **Insulation Resistance:**
  5000 MΩ under 500 Vdc
- **Max current rating per contact:**
  . #4 = 80A
  . #8 = 45A
- **Contact resistance:**
  . #4 = 2mΩ
  . #8 = 3mΩ
- **Shielding:** As per MIL DTL 38999
- **Shell continuity:**
  . W = 2.5 mΩ
  . F = 1mΩ
  . J, M = 3 mΩ
  . JVS = 5 mΩ

Environmental

- **Temperature range:**
  . W, J, X, JVS = - 65°C +175°C
  . F, M, K, S, TT, TF = - 65°C +200°C
- **Sealing:** As per MIL DTL 38999
- **Damp Heat:** As per MIL DTL 38999
- **Salt Spray:**
  . W, TT, TF, K, JVS = 500 hours
  . F, S = 48 hours
  . J,M,X = 2000 hours
- **Fire resistance:**
  As per EN 2591 - C 17 method A
- **Resistance to fluid:**
  As per MIL DTL 38999

Connector part numbers

Aluminum, Composite, Stainless steel & Titanium connector

Basic Series	8D	0	-	11	W	80	P	N	251

Style:
- **0:** Square flange receptacle
- **5:** Plug with RFI shielding
- **7:** Jam nut receptacle

Type: Crimp contact

Shell size: 11 - 17 - 19 - 21 - 23 - 25

Plating:
Aluminum shell:
- **W:** Olive drab cadmium
- **F:** Nickel
- **ZC:** Green zinc cobalt
- **Z:** Black zinc nickel

Composite shell:
- **J:** Olive green cadmium
- **M:** Nickel
- **X:** Without plating

Stainless steel shell:
- **K:** Corrosion resistant
- **S:** Nickel

Titanium shell:
- **TT:** Without plating
- **TF:** Nickel

Contact layouts: See next page

Contact style:
- **P:** Pin contact
- **S:** Socket contact
- **A:** Male connector supplied without contact
- **B:** Female connector supplied without contact

Orientation: N - A - B - C - D - E

Specification:
- **251:** Mandatory for some layouts supplied with power contacts (see next page)

Bronze connector

Basic Series	JVS	16	A	11	80	P	N	251

Style:
- **00:** Square flange receptacle
- **07:** Jam nut receptacle
- **16:** Plug

Material:
- **A:** Bronze shell material

Shell size: 11 - 17 - 19 - 21 - 23 - 25

Contact layouts: See next page

Contact style:
- **P:** Pin contact
- **S:** Socket contact
- **A:** Male connector supplied without contact
- **B:** Female connector supplied without contact

Orientation: N - A - B - C - D - E

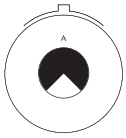
Specification:
- **251:** Mandatory for some layouts supplied with power contacts (see next page)

Contact layouts

Contact #22D
Contact #20
Contact #16
Contact #12
Contact #8 Power
Contact #4 Power

11

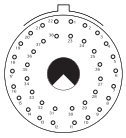
80
Spec 251



1#8

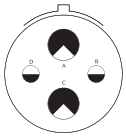
17

02
Spec 251



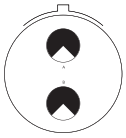
38#22D
1#8

22
Spec 251



2#12
2#8

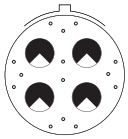
75
Spec 251



2#8

19

18
Spec 251



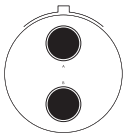
14#22D
4#8

21

20
Spec 251

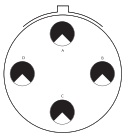
18#20
2#8

42*



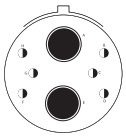
2#4

48*



4#8

72*



6#16
2#4

75
Spec 251

4#8

77
Spec 251

17#22D
2#8

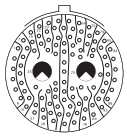
23

06
Spec 251

6#8

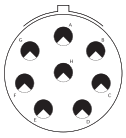
25

07
Spec 251



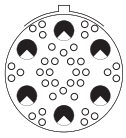
97#22D
2#8

08
Spec 251



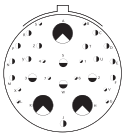
8#8

17
Spec 251



36 #22D
6 #8

20
Spec 251



10#20
13#16
4#12 3#8

41
Spec 251

22#22D, 3#20
11#16, 2#12
3#8

44*

4#16
4#4

46
Spec 251

40#20
4#16
2#8

* Power contacts on standard, no spec. 251 needed.

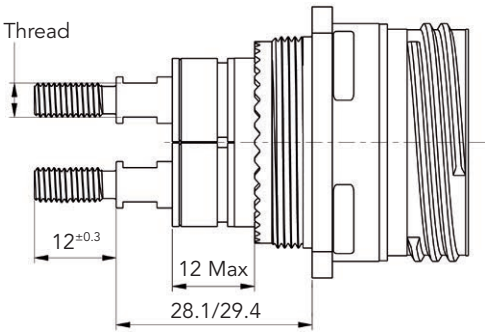
Power contacts

Contact size	Contact type	Part number	Reducer	Cable size max.		Boot
				AWG	mm²	
#4	Male	85997598900*	Without	N/A	25 mm²	N/A not sealed
	Female	85997599900*				
	Male	85997534		AWG 4	16 to 21 mm²	85994594 for cable 16mm²
	Female	85997535				
	Male	85997524		AWG8	9 mm²	N/A not sealed
	Female	85997525				
	Male	85997534	85932000A	AWG6	10 mm²	85994593
	Female	85997535				
	Male	85997528900	Without	AWG6	10 mm²	
	Female	85997529900				
#8	Male	85997580	Without	AWG8	9 mm²	85994542
	Female	85997581				
	Male	85997580	85997645	AWG10	6 mm²	85994547
	Female	85997581				
#8 according to EN 3155	Male	85996215900	Without	AWG8	9 mm²	85994542
	Female	85996217900				
	Male	85996216900		AWG10	6 mm²	85994547
	Female	85996218900				
#8 JVS only	Male	85997544	Without	AWG8	9 mm²	85994542
	Female	85997541				
	Male	85997544	85997645	AWG10	6 mm²	85994547
	Female	85997541				

Cable section AWG	#22	#20	#16	#12	#10	#8	#4
mm² maxi	0.34	0.6	1.34	3.18	5.8	9	21
mm² mini	0.095	0.21	0.6	1.91	3.8	5.8	16

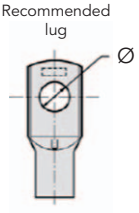
* Not included in connector P/N.
Must be ordered separately.

Bus bar contact



Contact size	Thread	Part number			Lug Ø
		Male	Female	Boots	
#4	M5x0.8	85930873A	85930875A	85994594	5.2
#8	M3x0.5	85930872A	85930874A	85994542	3.2

Contacts available separately only.
Lug: tin over copper recommended. Dimensions for indication only.



Note: All dimensions are in millimeters (mm)

Power tools

Contact size	Contact type	Contact reference	Cable AWG	Crimping tool			Contact extraction tool (metallic)	Contact extraction tool (plastic)
				Automatic tool: M22520/23-01		Manual hand tool: M300 BT		
				Die set	Locator	Locator		
#4	Male	8599-7534	#4-5 or #10-16mm²	M22520/23-04	M22520/23-11	N/A	8533-8175	M81969/14-07
	Female	8599-7535						
#8 JVS only	Male	8599-7544	#8 or #10	M22520/23-02	8599-9601	SP 593	8660-197	M81969/14-12
	Female	8599-7541						
#8	Male	8599-7580						
	Female	8599-7581						

Automatic tool for contacts #4 & #8

Crimping tool M22520/23-01

Die set

Locator

Manual hand tool for contacts #8

Crimping tool M300 BT

Locator

Extraction tool

Metallic tool

For further information contact us at contactmilaero@souriau.com
or visit our web site www.souriau.com

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