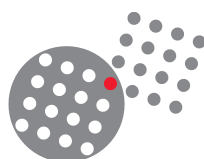




microComp® series

micro miniature composite connectors



SOURIAU
Connection Technology



SOURIAU

Connectors and interconnect systems for harsh environments

The company designs, manufactures and markets high performance interconnect solutions for severe environments from industrial broadline 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 1917 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



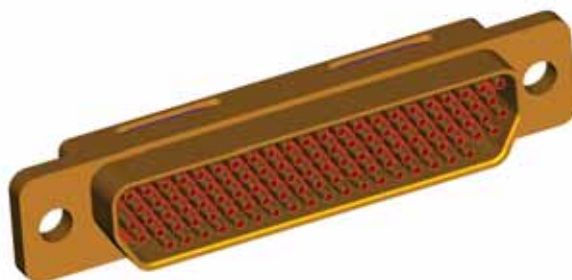
Features & Benefits

World Smallest Miniaturized Rectangular Connector with dismantlable contacts

- **HIGH DENSITY** Layouts
from 7 to 104 ways.



7 ways



104 ways

- **SIZE SAVING** versus Standard Ranges.
- 40 % versus High Density DSUB.

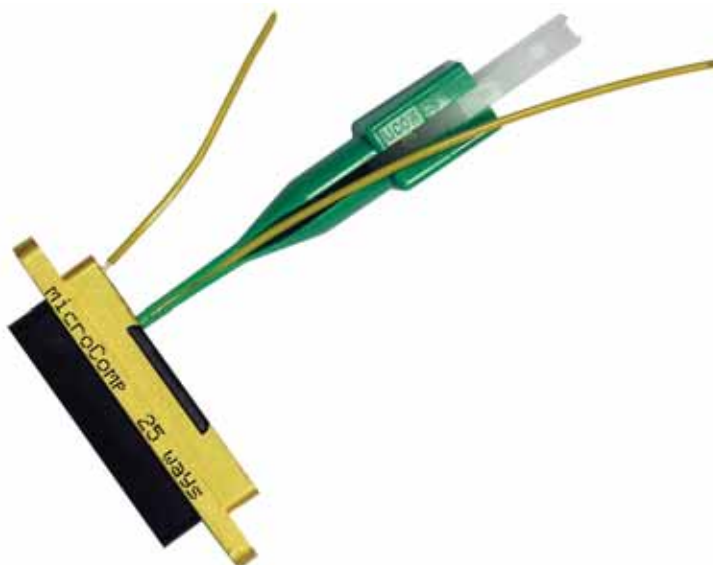


microComp®

High density DSUB

Dismountable contacts for wiring flexibility

- Contact crimping by user or External wiring.
- Separate procurement for connectors and cables.
- No need to anticipate harness definition.
- Easy Harness configuration change.
- Simple BOM Management (no specific P/N).



➔ **TIME SAVING IN DEVELOPMENT**



Features & Benefits

Lightweight Composite Materials

- High technology composite shells (Fiber Glass filled).
- Advanced plating process over composite shells for maximum shell to shell continuity.
- Molded Shells & insulators for shortest lead time.
- **WEIGHT SAVING** versus Standard Ranges
 - 60 % versus High Density DSUB.



High Vibration Withstanding

- 44 G Random during 8 hours (environmental version).
No Microcuts over 1 μ s.
- Strengthen Fiber Glass material.
For Maximum Mechanical resistance.
- Suitable for Missile & Launchers
Mechanical Environment.





Features & Benefits

Available with standard accessories

- Backshells
- Screw locks
- Dust Caps



COMPATIBLE WITH MIL-STD 83513 INTERFACES

microComp[®] applications: Space & Defense

High Density & Mass saving:



Miniaturization:





Available versions

MIL Grade

microComp® range is available in 2 versions for main Mil-Aero applications:

- **STANDARD VERSION:** Nickel Plated.
- **ENVIRONMENTAL VERSION:** with **Rear grommet** and **Interfacial seal**.



Space Grade

15 years experience in standard and specific Space connectors allows Souriau to offer today a *microComp*® version 100% compliant with Space Grade environment:

- **NON OUTGASSING:**
all materials used in *microComp*® have been qualified by ESA as Non Outgassing.
- **NON MAGNETISM:**
microComp® uses non metallic materials and is Non Magnetic compliant by definition.
- **HIGH RELIABILITY:**
Souriau manufacturing processes have qualified for years by ESA and NASA on standard connectors.





Description

Souriau introduces its New Miniaturized Rectangular Connector Range:

- With its lightweight design and very high density, *microComp*® is an alternative to HD DSUB with superior characteristics.
- With dismountable crimp contact (instead of solder termination), *microComp*® is a flexible alternative to MIL-STD 83513 connectors.
- *microComp*® has same external dimensions (mechanical interface and Panel Cut) as MIL-STD 83513.
- Locking accessories, backshells and dust caps are fully compatible with MIL-STD 83513.
- *microComp*® uses high technology composite materials and advanced shell plating process.
- *microComp*® is available in MIL version, Sealed Version and in SpaceGrade version.

Technical characteristics

	Space grade	MIL grade
Materials and Finishes Shell Shell platin Insulator Grommet and seal Contact Contact plating	Glass fiber loaded plastic 1.27 µ gold Thermoplastic Copper alloy 1.27 µ gold	Glass fiber loaded plastic 10 µ Nickel Thermoplastic Liquid silicone rubber Copper alloy 1.27 µ gold
Mechanical performances Endurance Shock Vibration Contact retention	500 mating/unmating operations 50 G's 20G Random (30 mn/axis) 20G Sinus 10-2000Hz (30mn/axis) 15N	500 mating/unmating operations 50 G's 44G Random (8 hours/ axis)** 20G Sinus 10-2000Hz (30mn/axis) 15N
Electrical characteristics Current rating Contact resistance Dielectric withstanding voltage Sea level 70 000 Feet Insulation resistance Admissible wire Gauge Shell to Shell continuity	2.5 Amp <5 mΩ 600 Vrms 200 Vrms > 5000 MΩ at 500 Vdc AWG #26 and #28 < 2 mΩ (*)	2.5 Amp <5 mΩ 600 Vrms 200 Vrms > 5000 MΩ at 500 Vdc AWG #26 and #28 < 5 mΩ (*)
Climatic characteristics Operation temperature (*) Salt spray	-55°C to +175°C (*) 48 hours	-55°C to +175°C (*) 48 hours
Space requirements Outgassing Residual Magnetism	1% max T.M.L 1% R.M.L 0.1% C.V.VM (ESCC-Q-70-02A ESA or SP-R-0022A) ≤ 200 Gamma (*)	

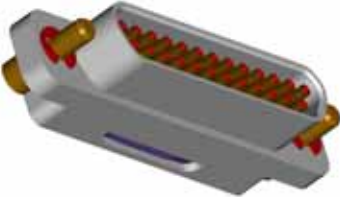
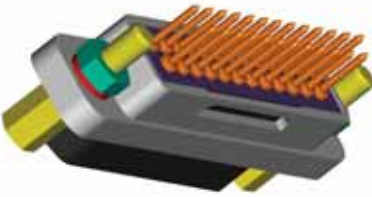
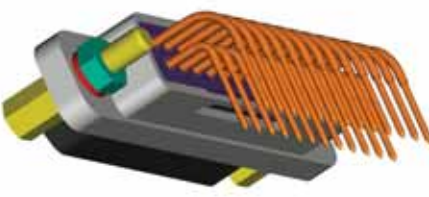
(*) Qualification test results pending.

(**) Environmental version.



Connector part number / Ordering information

Basic series		8MC	N	E	F	25	S	011	L
Version:	G: Space grade (Gold finish) N: MIL grade (Electroless Nickel finish)								
Environment:	E: sealed version None: no sealing								
Shell size:	A: 7 contacts B: 11 contacts C: 13 contacts D: 17 contacts E: 21 contacts F: 25 contacts G: 33 contacts H: 51 contacts J: 104 contacts								
Contact layout code:		See table page 9							
Contact type:	P: Pin contact S: Socket contact								
Termination code :	011: Crimp contact OL3 Straight spills contact 1AON: 90° spills, without bracket, 2,54 mm pitch between row 1BON: 90° spills, without bracket, 2,84 mm pitch between row								
Contact included:	None: delivered with contact for wire AWG 26-28 L: delivered without contact								

Female connector	Male connector	
		
011	OL3	1AON & 1BON

NB: Spills contacts only available for male connector.



Contact Layouts

Shell size	Code	Number of contacts	Layout
A	7	7	
B*	11	11	
C*	13	13	
D*	17	17	
E*	21	21	
F	25	25	
G*	33	33	
H	51	51	
J	104	104	

Contact size: #26.

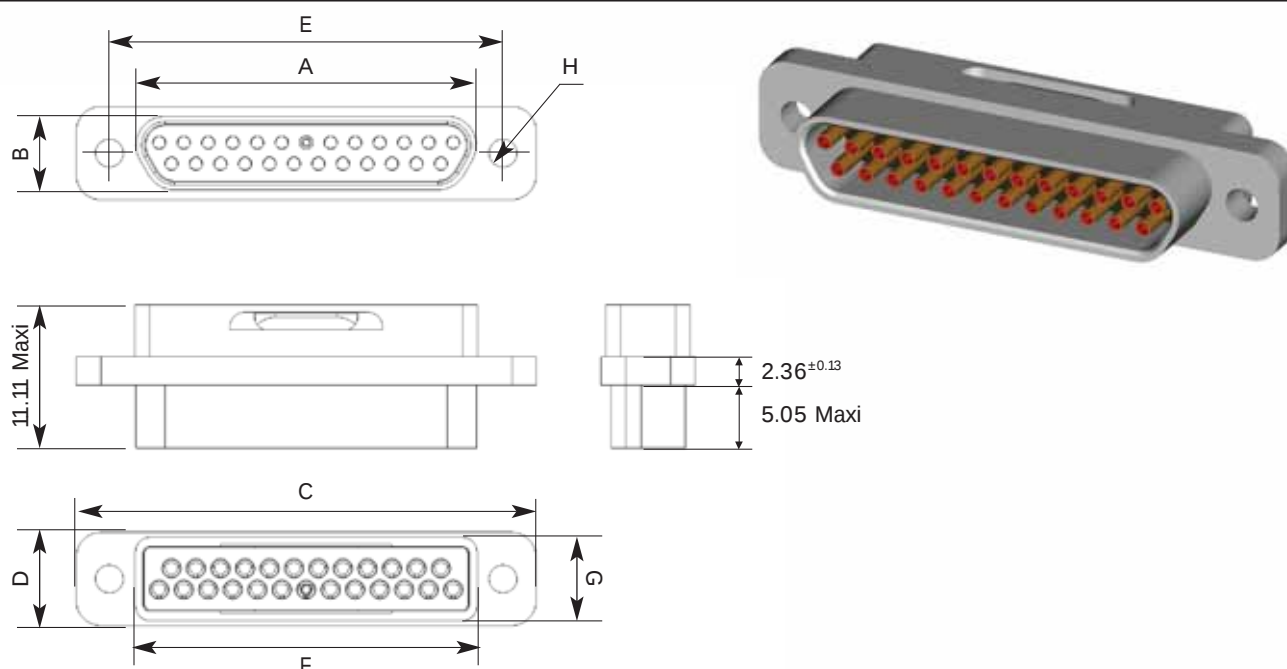
Contact pitch: 2.0 x 1.7 mm².

* Consult us for availability.



Physical dimensions

Female connectors with crimp contacts

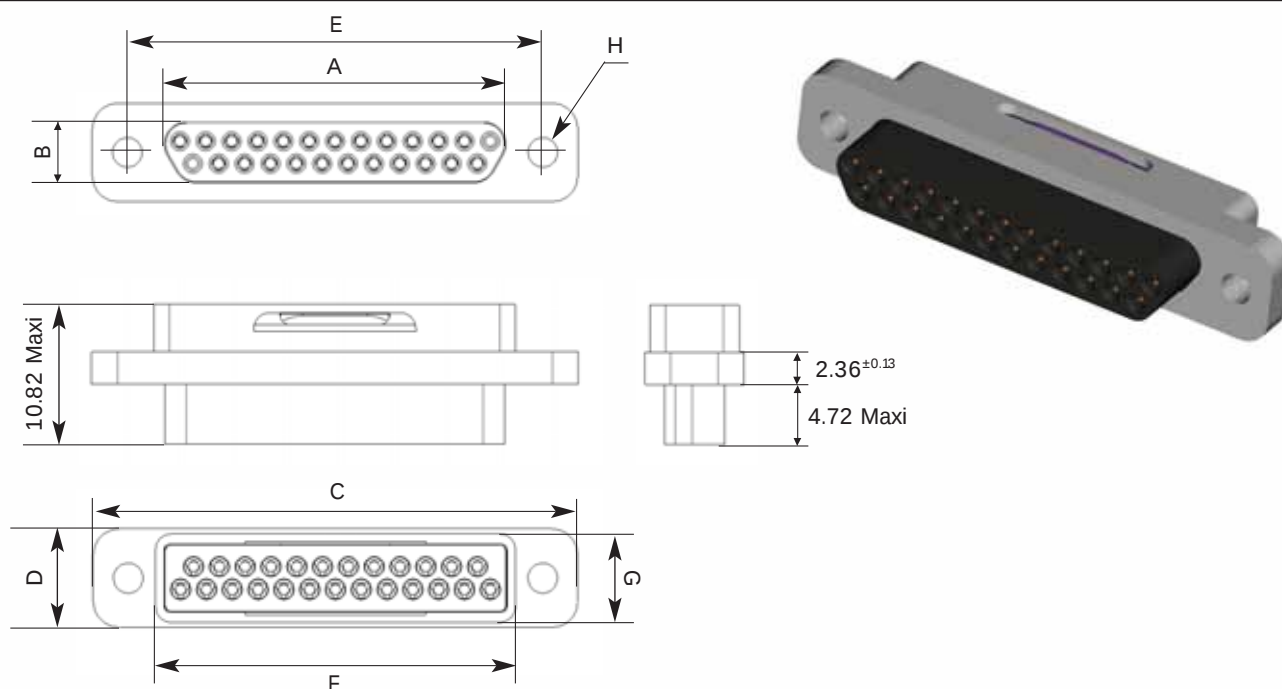


Shell Size	A	B	C		D		E		F		G	H
	Max	Max	Min	Max	Min	Max	Min	Max	Min	Max	Max	Min
A	10.16 .400	6.38 .251	19.43 .765	19.94 .785	7.31 .288	7.82 .307	14.22 .559	14.48 .570	9.45 .372	10.16 .400	6.86 .270	2.26 .089
B	13.97 .550	6.38 .251	23.25 .915	23.75 .935	7.31 .288	7.82 .307	18.03 .709	18.29 .720	13.26 .522	13.97 .550	6.86 .270	2.26 .089
C	17.78 .634	6.38 .251	27.05 1.065	27.56 1.085	7.31 .288	7.82 .307	21.84 .859	22.10 .870	17.07 .672	17.78 .700	6.86 .270	2.26 .089
D	20.32 .700	6.38 .251	29.59 1.165	30.10 1.185	7.31 .288	7.82 .307	24.38 .959	24.64 .970	19.61 .772	20.32 .800	6.86 .270	2.26 .089
E	24.13 .950	6.38 .251	33.41 1.315	33.91 1.335	7.31 .288	7.82 .307	28.19 1.149	28.45 1.120	23.42 .992	24.13 .950	6.86 .270	2.26 .089
F	27.94 1.100	6.38 .251	37.21 1.465	37.72 1.485	7.31 .288	7.82 .307	32.00 1.259	32.26 1.270	27.23 1.072	27.94 1.100	6.86 .270	2.26 .089
G	26.67 1.050	7.47 .294	35.95 1.415	36.45 1.435	8.42 .331	8.92 .351	30.73 1.209	30.99 1.220	25.96 1.022	26.67 1.050	6.86 .270	2.26 .089
H	38.65 1.522	7.47 .294	48.05 1.891	48.55 1.911	8.42 .331	8.92 .351	42.73 1.682	42.99 1.692	38.40 1.512	38.65 1.522	7.87 .310	2.26 .089
J	46.80 1.842	10.94 .431	62.25 2.451	62.75 2.470	12.00 .472	12.50 .492	54.72 2.154	54.98 2.177	47.40 1.866	47.65 1.876	11.25 .443	3.70 .146



Physical dimensions

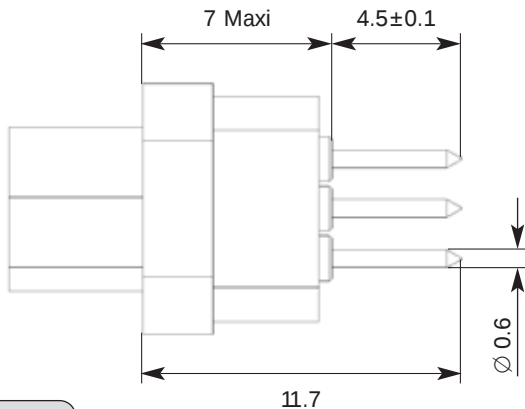
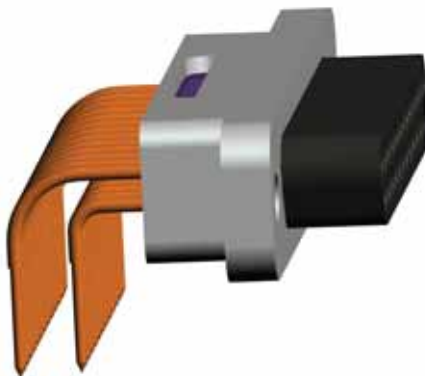
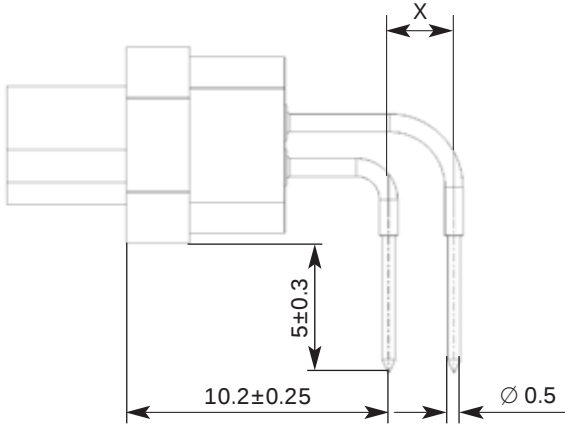
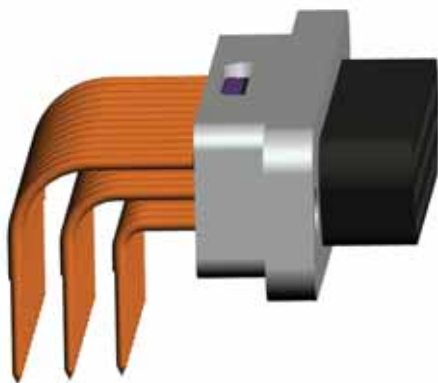
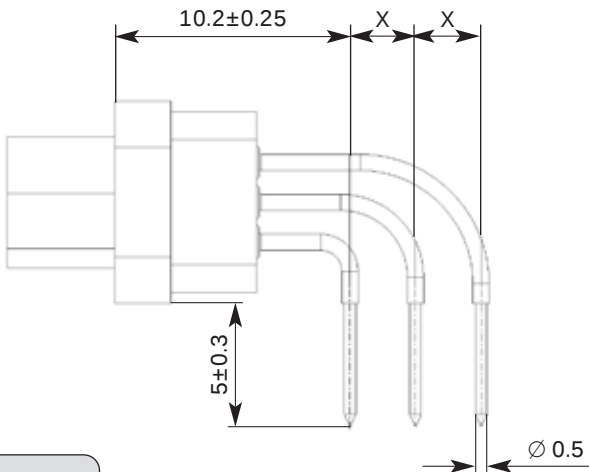
Male connectors with crimp contacts



Shell	A	B	C		D		E		F		G	H
Size	Max	Max	Min	Max	Min	Max	Min	Max	Min	Max	Max	Min
A	8.48 .334	4.69 .185	19.43 .765	19.94 .785	7.31 .288	7.82 .307	14.22 .559	14.48 .570	9.45 .372	10.16 .400	6.86 .270	2.26 .089
B	12.29 .484	4.69 .185	23.25 .915	23.75 .935	7.31 .288	7.82 .307	18.03 .709	18.29 .720	13.26 .522	13.97 .550	6.86 .270	2.26 .089
C	16.10 .634	4.69 .185	27.05 1.065	27.56 1.085	7.31 .288	7.82 .307	21.84 .859	22.10 .870	17.07 .672	17.78 .700	6.86 .270	2.26 .089
D	18.64 .734	4.69 .185	29.59 1.165	30.10 1.185	7.31 .288	7.82 .307	24.38 .959	24.64 .970	19.61 .772	20.32 .800	6.86 .270	2.26 .089
E	22.45 .884	4.69 .185	33.41 1.315	33.91 1.335	7.31 .288	7.82 .307	29.19 1.149	28.45 1.120	23.42 .992	24.13 .950	6.86 .270	2.26 .089
F	26.26 1.034	4.69 .185	37.21 1.465	37.72 1.485	7.31 .288	7.82 .307	32.00 1.259	32.26 1.270	27.23 1.072	27.94 1.100	6.86 .270	2.26 .089
G	24.99 .934	4.69 .185	35.95 1.415	36.45 1.435	7.31 .288	7.82 .307	30.73 1.209	30.99 1.220	25.96 1.022	26.67 1.050	6.86 .270	2.26 .089
H	38.65 1.522	5.78 .227	48.05 1.891	48.55 1.911	8.42 .331	8.92 .351	42.73 1.682	42.99 1.692	38.40 1.512	38.65 1.522	7.87 .310	2.26 .089
J	46.80 1.842	9.25 .364	62.25 2.451	62.75 2.470	12.00 .472	12.50 .492	54.72 2.154	54.98 1.377	47.40 1.866	47.65 1.876	11.25 .443	3.70 .146



Physical dimensions

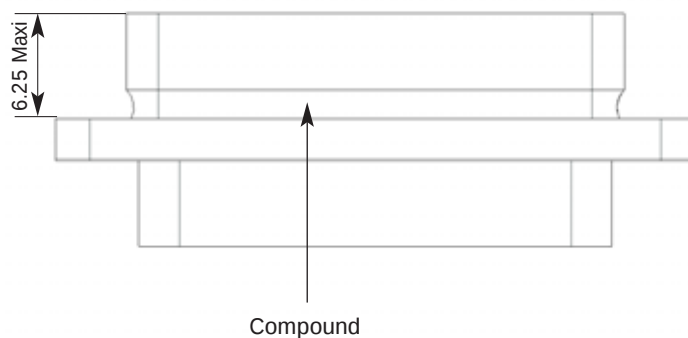
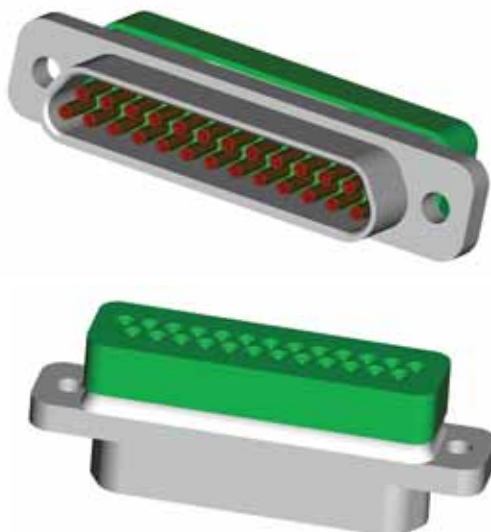
Male connectors with spills contacts	
	 OL3
 2 rows for contact layouts 7 to 25	 1AON / 1BON
 3 rows for contact layouts 33 to 51	 1AON / 1BON

NB: dimension x = 2.54 (1AON) - 2.84 (1BON)



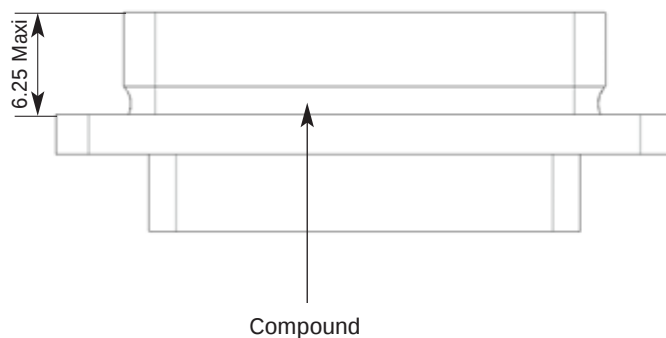
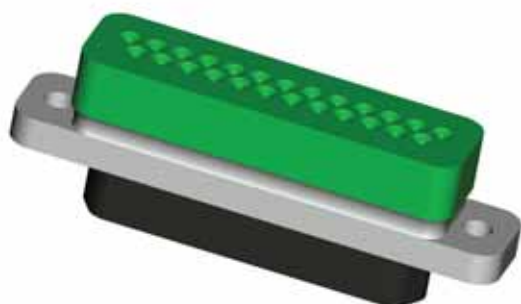
Physical dimensions

Female connectors (Sealed version)



Mounting with Grommet and interfacial seal (code: E)

Male connectors (Sealed version)

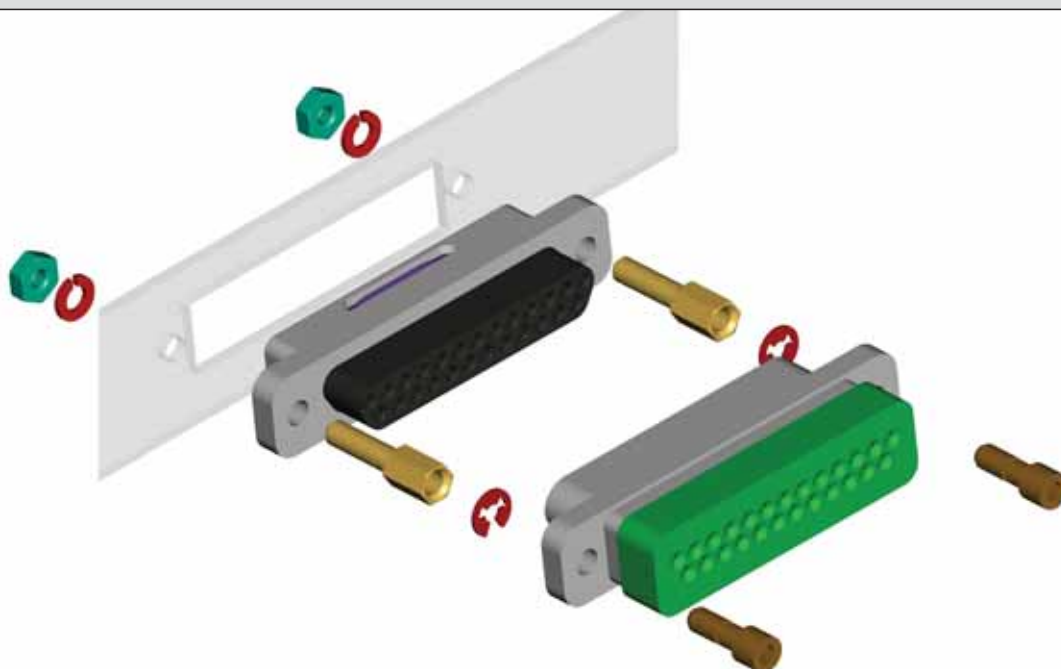


Mounting with Grommet (code: E)

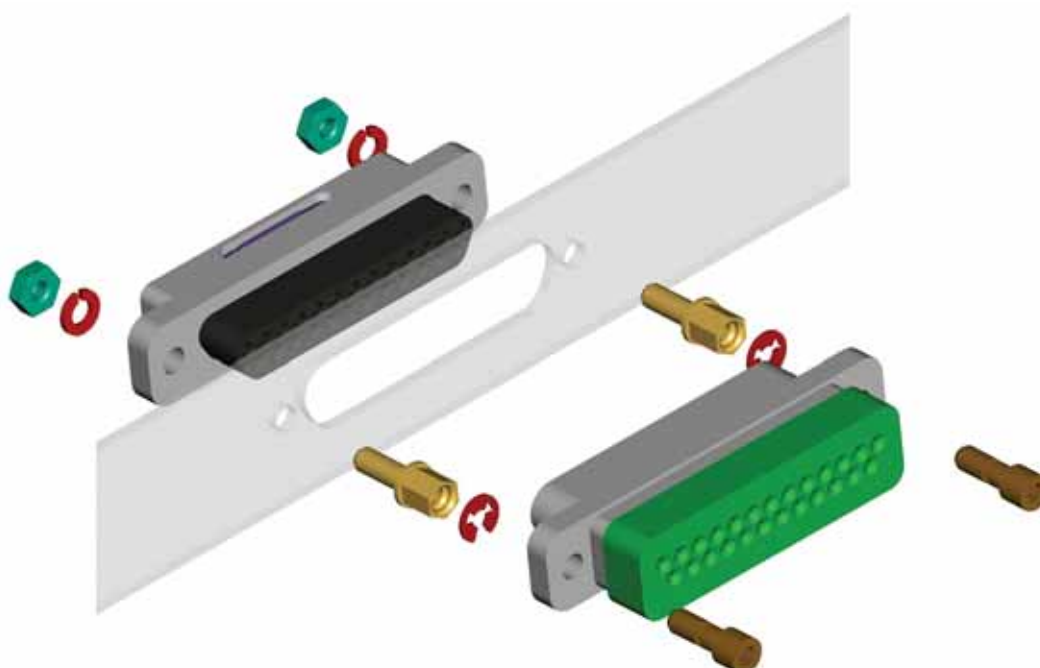


Mounting operations : hardware mounting views

Option 1: front mounting on panel



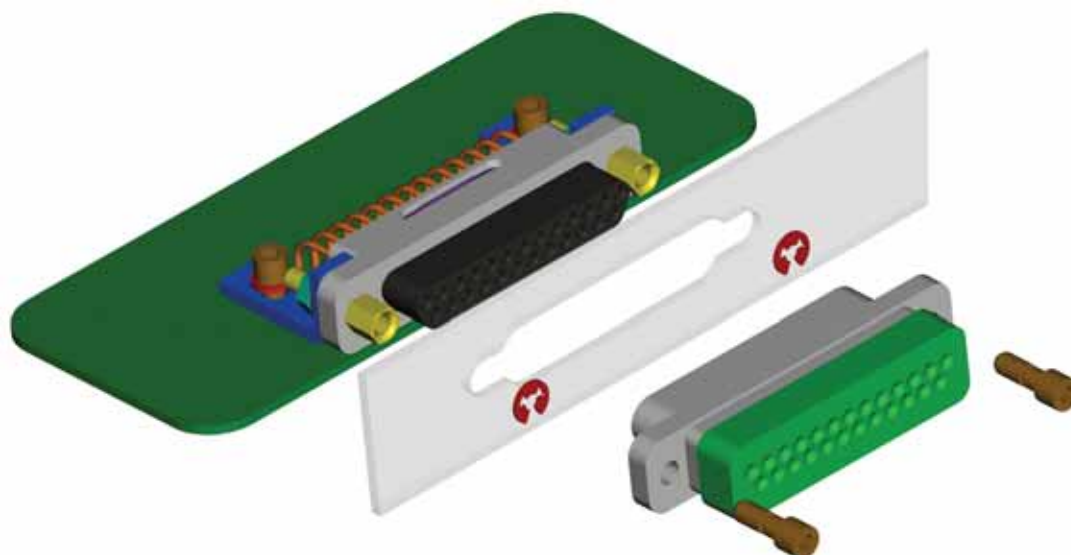
Option 2: rear mounting on panel



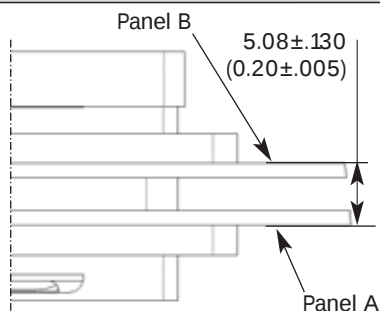


Mounting operations : hardware mounting views

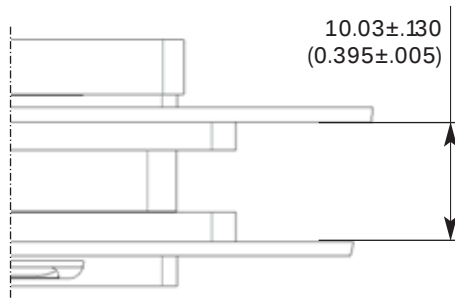
Option 3: rear mounting on PCB



Double panel mounting dimensions



Plug and Receptacle
Rear Mounted

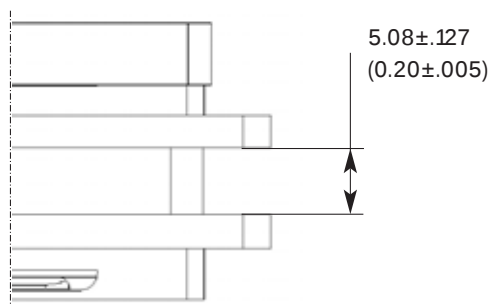


Plug and Receptacle
Front Mounted



Plug Front Mounted
Receptacle Rear Mounted

Recommended mating dimension

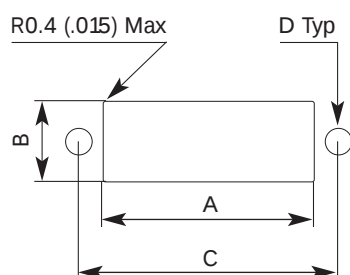




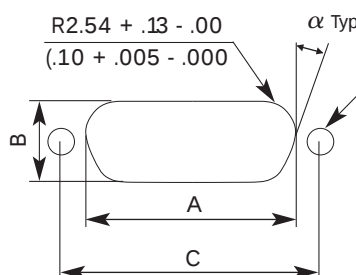
Mounting operations

Panel cut-out

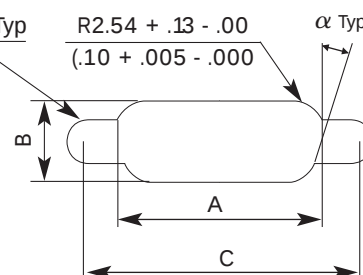
Option 1
Front Mounting on Panel



Option 2
Rear Mounting on Panel



Option 3
Rear Mounting on PCB



Note : Shell size A to H: $\alpha = 27^\circ/26^\circ$ - Shell size J: $\alpha = 0^\circ$

Shell Size	Cut-out Figure -	A +0.1 (+.004) 0.0 (.000)	B +0.1 (+.004) -0.0 (.000)	C +0.1 (+.004) -0.1 (-.004)	D +0.1 (+.004) -0.0 (.000)
A	1	10.36 (.408)	6.88 (.270)	14.35 (.565)	2.26 (.089)
	2	10.19 (.401)	6.40 (.252)	14.35 (.565)	2.26 (.089)
	3	10.19 (.401)	6.40 (.252)	14.35 (.565)	3.70 (.146)
B	1	14.17 (.558)	6.88 (.270)	18.56 (.731)	2.26 (.089)
	2	14.00 (.551)	6.40 (.252)	18.56 (.731)	2.26 (.089)
	3	14.00 (.551)	6.40 (.252)	18.56 (.731)	3.70 (.146)
C	1	17.98 (.708)	6.88 (.270)	22.00 (.866)	2.26 (.089)
	2	17.81 (.701)	6.40 (.252)	22.00 (.866)	2.26 (.089)
	3	17.81 (.701)	6.40 (.252)	22.00 (.866)	3.70 (.146)
D	1	20.52 (.808)	6.88 (.270)	24.51 (.965)	2.26 (.089)
	2	20.34 (.801)	6.40 (.252)	24.51 (.965)	2.26 (.089)
	3	20.34 (.801)	6.40 (.252)	24.51 (.965)	3.70 (.146)
E	1	24.33 (.958)	6.88 (.270)	28.32 (1.115)	2.26 (.089)
	2	24.16 (.951)	6.40 (.252)	28.32 (1.115)	2.26 (.089)
	3	24.16 (.951)	6.40 (.252)	28.32 (1.115)	3.70 (.146)
F	1	28.14 (1.108)	6.88 (.270)	32.13 (1.265)	2.26 (.089)
	2	27.97 (1.101)	6.40 (.252)	32.13 (1.265)	2.26 (.089)
	3	27.97 (1.101)	6.40 (.252)	32.13 (1.265)	3.70 (.146)
G	1	26.87 (1.058)	8.00 (.315)	30.86 (1.215)	2.26 (.089)
	2	26.70 (1.051)	7.49 (.295)	30.86 (1.215)	2.26 (.089)
	3	26.70 (1.051)	7.49 (.295)	30.86 (1.215)	3.70 (.146)
H	1	39.05 (1.537)	8.00 (.315)	42.86 (1.687)	2.26 (.089)
	2	38.65 (1.522)	7.49 (.295)	42.86 (1.687)	2.26 (.089)
	3	38.65 (1.522)	7.49 (.295)	42.86 (1.687)	3.70 (.146)
J	1	48.05 (1.892)	11.40 (.449)	54.85 (2.159)	3.20 (.126)
	2	46.80 (1.842)	11.10 (.437)	54.85 (2.159)	3.20 (.126)
	3	46.80 (1.842)	11.10 (.437)	54.85 (2.159)	5.60 (.220)



Mounting operations - Printed Circuit Board drilling

Shell size	Code	Number of contacts	Drilling dimensions
A	7	7	
B	11	11	
C	13	13	
D	17	17	
E	21	21	



Mounting operations - Printed Circuit Board drilling

Shell size	Code	Number of contacts	Drilling dimensions
F	25	25	
G	33	33	
H	51	51	
J	104	104	

	X	Y
OL3	1.732	3.464
1AON	2.540	5.08
1BON	2.840	5.68

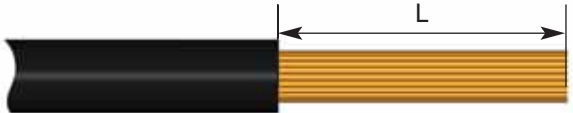
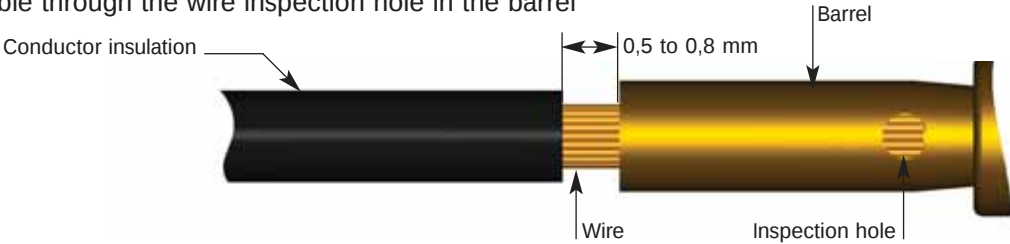
Note: we suggest 0.89 Ø hole for contact termination positions on PCB (0.50 Ø spills).



Crimp contact and wiring information

Contact Part Number / Ordering information		
 #26 Male Crimp contact	8MC 001 01	MIL Grade contact
	8MC 001 01 NMB	Space Grade Non Magnetic contact
 # 26 Female Crimp contact	8MC 001 02	MIL Grade contact
	8MC 001 02 NMB	Space Grade Non Magnetic contact

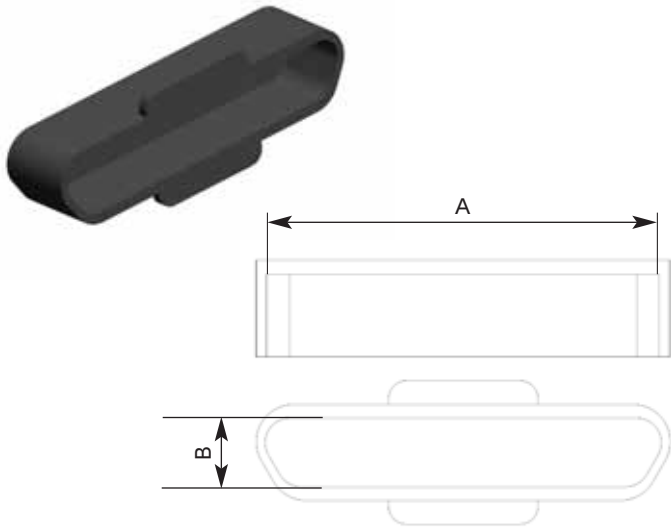
Wiring tools ordering information											
Insertion / Extraction tools: P/N 8MC IET 	 Crimping tool: P/N M22520/2-01										
	<table border="1"> <thead> <tr> <th>Locator</th><th>Male locator P/N 8995-3093A</th><th>Female locator P/N 8995-3094A</th></tr> </thead> <tbody> <tr> <td>AWG 26</td><td>Mark n°4</td><td>Mark n°4</td></tr> <tr> <td>AWG 28</td><td>Mark n°2</td><td>Mark n°2</td></tr> </tbody> </table>	Locator	Male locator P/N 8995-3093A	Female locator P/N 8995-3094A	AWG 26	Mark n°4	Mark n°4	AWG 28	Mark n°2	Mark n°2	
Locator	Male locator P/N 8995-3093A	Female locator P/N 8995-3094A									
AWG 26	Mark n°4	Mark n°4									
AWG 28	Mark n°2	Mark n°2									

Wiring recommendation								
Cable preparation and wire stripping L = Length of wire stripping								
<table border="1"> <thead> <tr> <th>Contact size</th><th>L min.</th><th>L Max.</th></tr> </thead> <tbody> <tr> <td># 26</td><td>2,91 .114</td><td>3,41 .134</td></tr> </tbody> </table>	Contact size	L min.	L Max.	# 26	2,91 .114	3,41 .134		
Contact size	L min.	L Max.						
# 26	2,91 .114	3,41 .134						
Insertion of wire in contact barrel When inserting the stripped wire into the contact barrel check that no strands are left outside and that the wire is visible through the wire inspection hole in the barrel								
								



Accessories

Molded Plastic Dust Caps

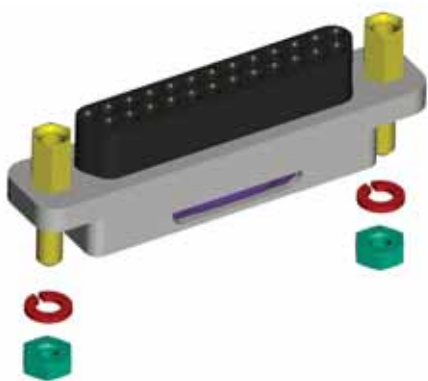


Anti-static *microComp*® dust caps are available to fit all size of Shell *microComp*® connectors. These dust caps are injection-molded from a rugged plastic material that resists cracking and provides protection.

Material: Polypropylene, anti-static, color black.

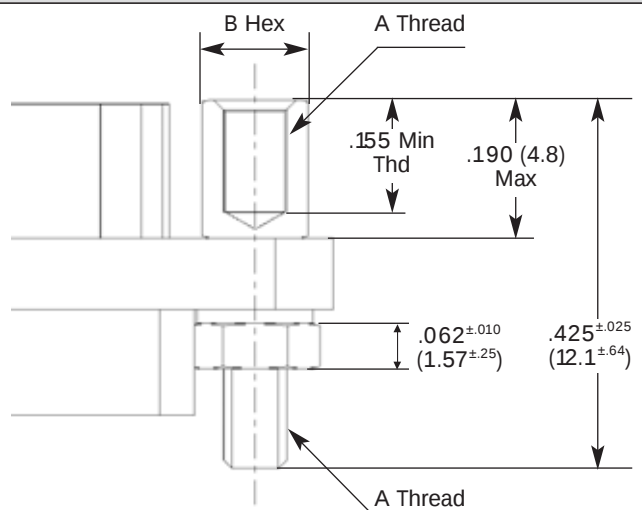
Layout	Part Number	A ref.	B ref.
7P	8MC DC AP	8.0 (. 315)	4.7 (. 184)
7S	8MC DC AS	9.8 (. 385)	6.4 (. 250)
11P	8MC DC BP	11.8 (. 465)	4.7 (. 184)
11S	8MC DC BS	13.6 (. 535)	6.4 (. 250)
13P	8MC DC CP	15.6 (. 615)	4.7 (. 184)
13S	8MC DC CS	17.4 (. 685)	6.4 (. 250)
17P	8MC DC DP	18.2 (. 715)	4.7 (. 184)
17S	8MC DC DS	19.9 (. 785)	6.4 (. 250)
21P	8MC DC EP	22.0 (. 865)	4.7 (. 184)
21S	8MC DC ES	23.7 (. 935)	6.4 (. 250)
25P	8MC DC FP	25.8 (1.015)	4.7 (. 184)
25S	8MC DC FS	27.6 (1.085)	6.4 (. 250)
33P	8MC DC GP	24.5 (. 965)	5.8 (. 227)
33S	8MC DC GS	26.3 (1.035)	7.4 (. 292)
51P	8MC DC HP		
51S	8MC DC HS		
100P	8MC DC JP		
100S	8MC DC JS		

“P” style Jackpost kits



Material/Finish - 303 Stainless Steel/Passivated per QQ-P-35

(Kits consist of two posts, two washers and two nuts)



Part Number	A Thread size	B Hex size	Mil Spec	Application
8 MC JP 507	#2-56 UNC	.125 (3.18)	M83513/0507	Connector sizes A through H
8 MC JP 517	#4-40 UNC	.187 (4.75)	M83513/0517	Connector size J

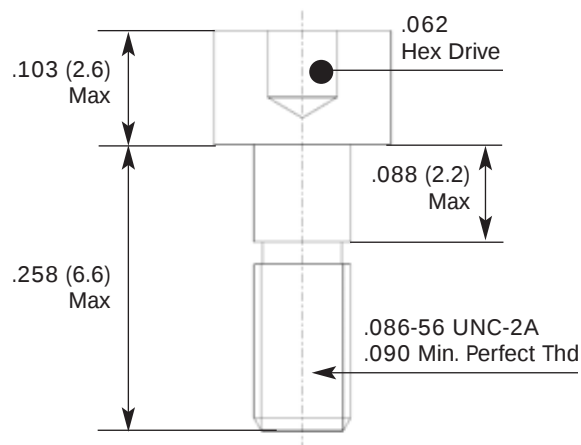


Accessories

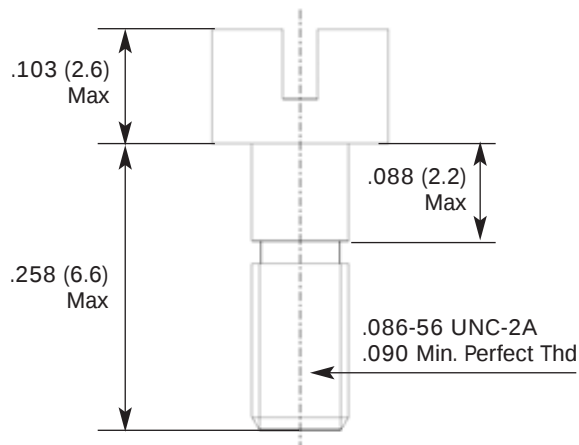
Jackscrews kits (Kits consist of two screws and two e-rings)



#2-56 for A through H connector sizes

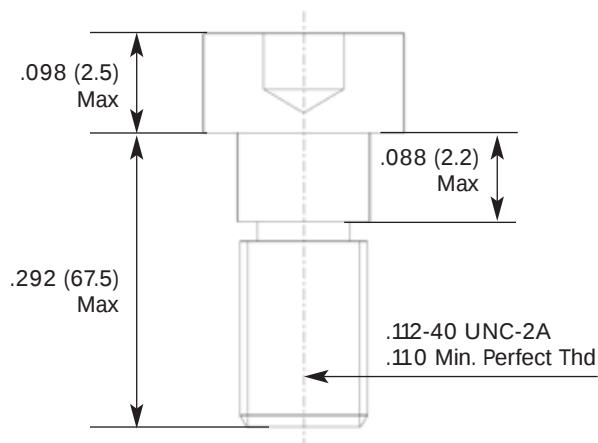


Part Number 8 MC JS 502 - Mil Spec M83513/05-02

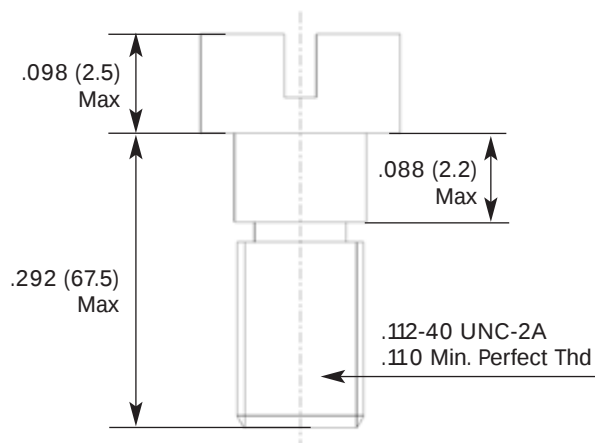


Part Number 8 MC JS 505 - Mil Spec M83513/05-05

#4-40 for J connector size (104 ways)



Part Number 8 MC JS 512 - Mil Spec M83513/05-12



Part Number 8 MC JS 515 - Mil Spec M83513/05-15



Accessories

Straight backshells

Basic series

Backshell

8MC BS

A

001

02

N

Shell size: A - B - C - D - E - F - G - H - J

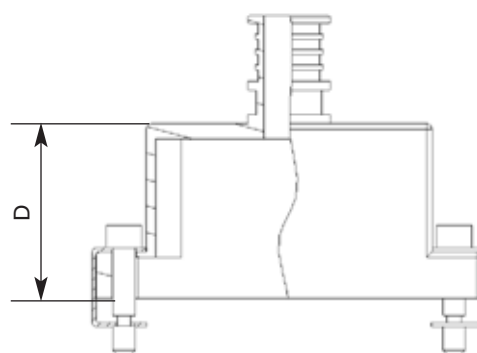
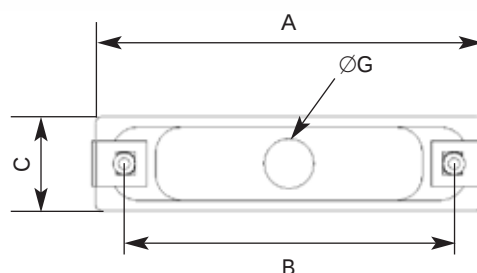
Serie: 001

Cable outlet type: see below *

Finish: N: Electroless Nickel G: Gold

Characteristics

- Solid fully machined aluminium alloy.
- Cable outlet for banded clamp termination system.
- For front or rear mount.
- Non magnetic *microComp*® Backshells.



(Backshells are supplied with two clips and two screws)

Shell Size	A	B	C	D	E	F	G	H	J
A	19.70	23.40	27.30	29.85	33.70	37.50	36.10		
B	14.35	18.16	21.97	24.51	28.32	32.13	30.86		
C	9.0	9.0	9.0	9.0	9.0	9.0	10.00		
D Max	10.00	12.00	14.00	16.00	17.00	18.00	19.00		
Cable outlet code*	2	2	2	3	3	3	4	5	5
Ø G	3.2	3.2	3.2	4.8	4.8	4.8	6.4	8.0	8.0

Nb: for sealed connector backshells, please consult us.



Accessories

90° backshells

Basic series

Backshell

8MC BS

A

201

02

N

Shell size: A - B - C - D - E - F - G - H - J

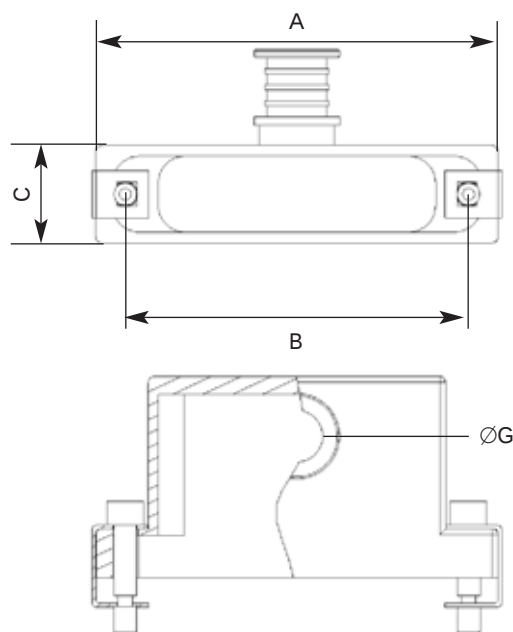
Serie: 201

Cable outlet type: see below*

Finish: N: Electroless Nickel G: Gold

Characteristics

- Solid fully machined aluminium alloy.
- Cable outlet for banded clamp termination system.
- For front or rear mount.
- Non magnetic *microComp*® Backshells.



(Backshells are supplied with two clips and two screws)

Shell Size	A	B	C	D	E	F	G	H	J
A	19.70	23.40	27.30	29.85	33.70	37.50	36.10		
B	14.35	18.16	21.97	24.51	28.32	32.13	30.86		
C	9.0	9.0	9.0	9.0	9.0	9.0	10.00		
D Max	10.00	12.00	14.00	16.00	17.00	18.00	19.00		
Cable outlet code*	02	02	02	03	03	03	04	05	05
Ø G	3.2	3.2	3.2	4.8	4.8	4.8	6.4	8.0	8.0

Nb: for sealed connector backshells, please consult us.



Accessories

45° backshells

Basic series

Backshell

8MC BS

A

101

02

N

Shell size: A - B - C - D - E - F - G - H - J

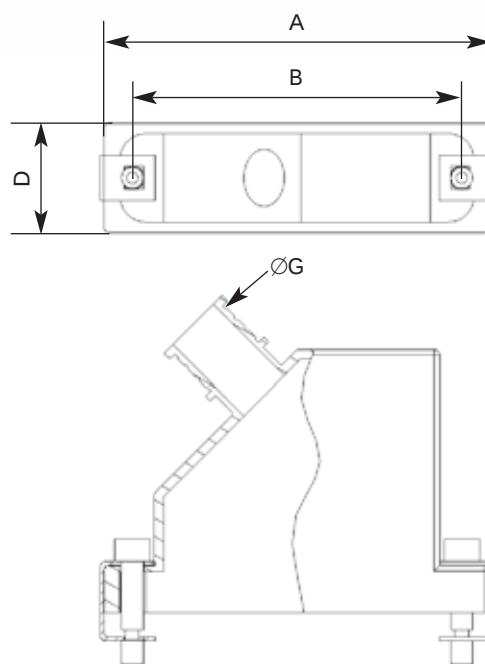
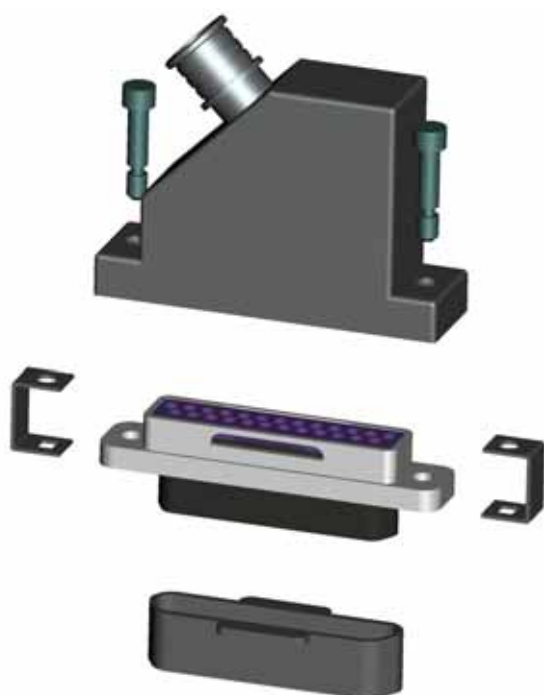
Serie: 101

Cable outlet type: see below*

Finish: N: Electroless Nickel G: Gold

Characteristics

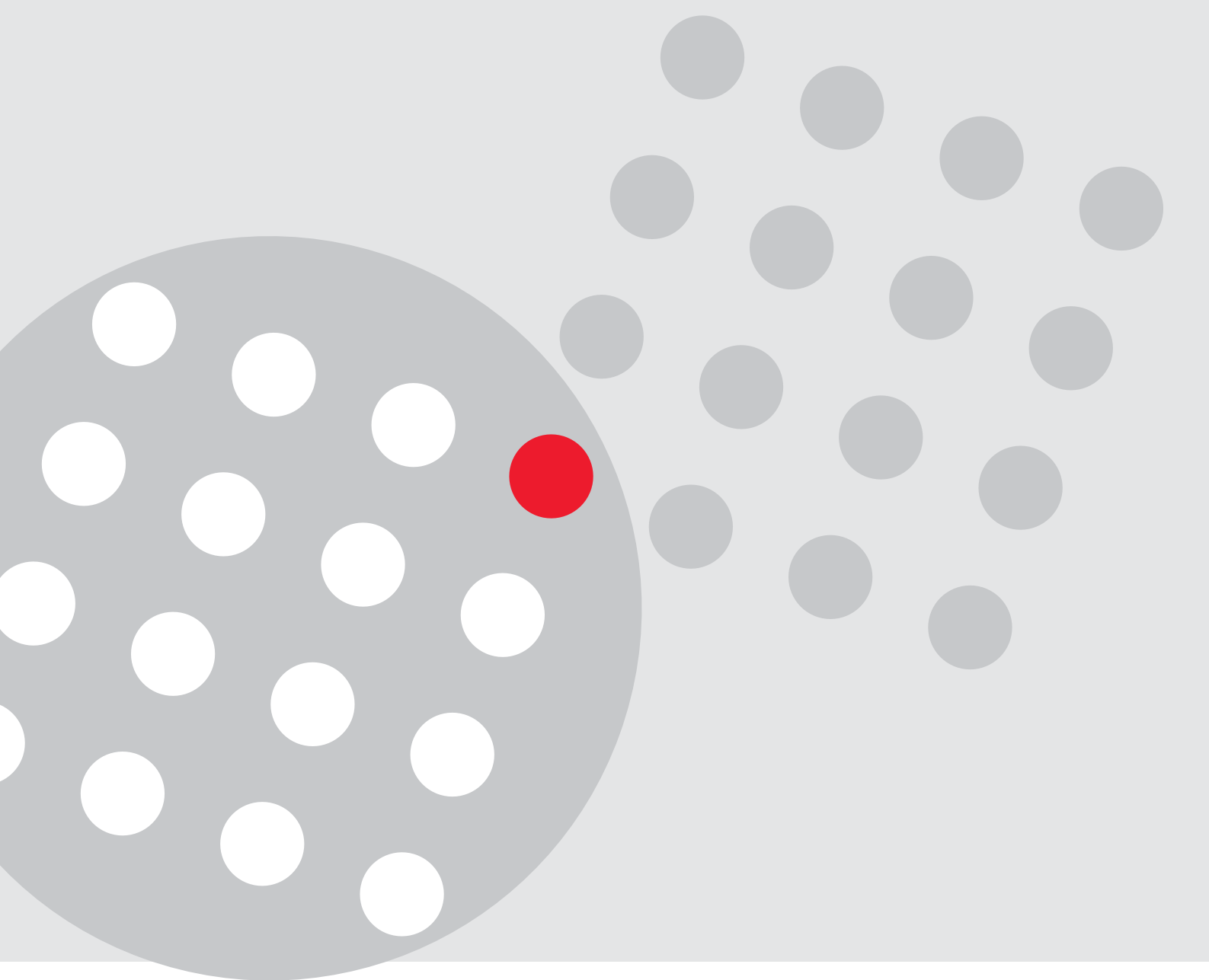
- Solid fully machined aluminium alloy.
- Cable outlet for banded clamp termination system.
- For front or rear mount.
- Non magnetic *microComp*® Backshells.



(Backshells are supplied with two clips and two screws)

Shell Size	A	B	C	D	E	F	G	H	J
A	19.70	23.40	27.30	29.85	33.70	37.50	36.10		
B	14.35	18.16	21.97	24.51	28.32	32.13	30.86		
C	9.0	9.0	9.0	9.0	9.0	9.0	10.00		
D Max	10.00	12.00	14.00	16.00	17.00	18.00	19.00		
Cable outlet code*	02	02	02	03	03	03	04	05	05
Ø G	3.2	3.2	3.2	4.8	4.8	4.8	6.4	8.0	8.0

Nb: for sealed connector backshells, please consult us.



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