

# D.SUB

connectors

military and aerospace  
applications



**SOURIAU**

E 579 07 89 F

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Finally, a range of various accessories (See Booklet IV) and many assembly options of the industrial D.Sub are available for the SOURIAU military series.

All dimensions in this  
catalogue are in mm

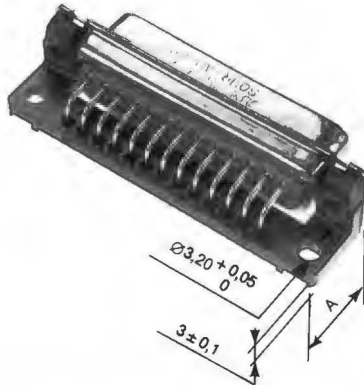
## assembly options

The DM and 8630 series possess the same mechanical characteristics as the series for computer and industrial applications: strength, contact scoop-proof protection from metal shell, polarizing trapezoid shape. They accept most accessories which are supplied pre-fitted on connectors to suit the most varied applications. Each **assembly option** corresponds to a letter added to the part number when ordering.

<p><b>V:</b> Female screw lock, riveted to shell.</p> <p>6,03 maxi Thread UNC 4,40</p>	<p><b>F:</b> Float mounting (floating bushing).</p> <p>Ø5 2,2 ± 0,1 2,75 ± 0,3 0,28 ± 0,47 0,67-0,9</p>
<p><b>S:</b> Spacers, riveted shell (straight spills only).</p> <p>A +0,1 -0,05 Ø3,20 ± 0,05 0,4 min. HE 501: A = 6,55 HE 508: A = 6,0</p>	<p><b>X:</b> Dimples (for enhanced electrical continuity)</p> <ul style="list-style-type: none"> <li>• on male connector only,</li> <li>• standard on tin plated shell.</li> </ul>
<p><b>O:</b> Clinch nut UNC 4.40.</p>	<p><b>L:</b> Clinch nut M3.</p>
<p><b>H:</b> Shielding termination fingers</p> <ul style="list-style-type: none"> <li>• easier cable shield termination on connector shell</li> <li>• braid termination by solder or lug terminal</li> <li>• improve solder tensile length (the braid runs through the eye)</li> <li>• prevents accidental temperature rise of the insulator which could affect performance</li> <li>• for cord connector: solder buckets only; on tin plated shell.</li> </ul> <div style="text-align: right;"> <p><b>NEW</b></p> <p>12,5 max. 3 2 4 5,3 7</p> </div>	

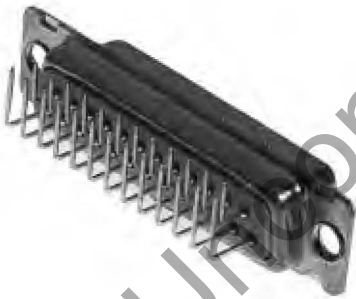
## assembly options

Souriau standard DM series connectors with angle spills are supplied with brackets and contact retainer bar (one piece plastic assembly)

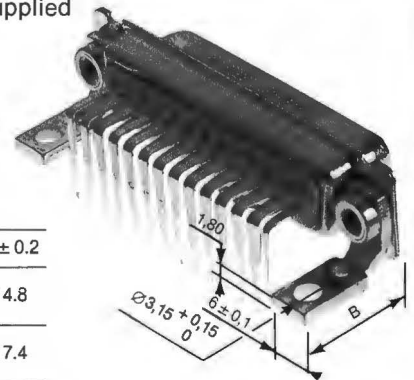


Termination		$A \pm 0.2$
5, 8,	9 to 37 contacts	15.30
	50 contacts	17.90
7 (US standard)	9 to 37 contacts	13.20
	50 contacts	15.70

**C:** Connector supplied without bracket.



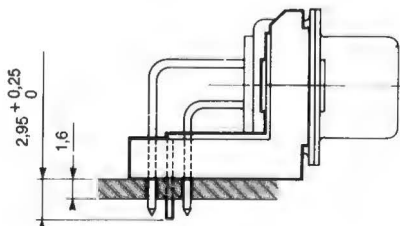
**M:** Connector supplied with metal brackets.



Layout	$B \pm 0.2$
9 to 37 contacts	14.8
50 contacts	17.4

**G:** Harpoon mounting of connector on PCB.

- No screws, no rivets
- Quick assembly
- Electrical continuity (through-plated holes)
- Angled spills available (9 to 37 contacts)
- For 1.6 to 1.8 thick PCBs (terminations 5, 7 and 8)



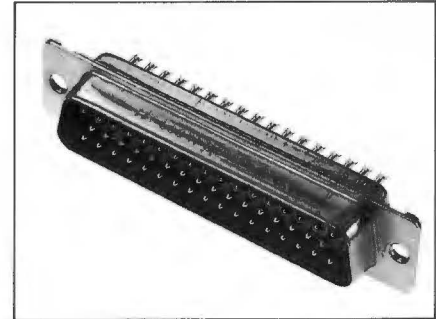
## DM series-HE 501

For aerospace, military or severe environment applications, series under MIL-C.24308 C and NF C 93425 / HE 501.

European standard qualifications.

They are QPL listed and made under CCQ (HE 5 list).

 UL rated product - file E77927



### ordering information

series	D B M V 25 P 5 00 M T X										
shell size	E, A, B, C, D										
	M - characterization of DM series										
options	<b>BLANK</b> - standard mounting hole ( $\varnothing = 3.10$ ) <b>O</b> - clinch nut UNC 4.40 <b>L</b> - clinch nut M3 <b>V</b> - female screw lock <b>F</b> - float mounting <b>S</b> - spacers (straight spills only)										
number of contacts	09, 15, 25, 37, 50										
	<b>P</b> - pin <b>S</b> - socket										
termination type and plating	<b>BLANK</b> - solder buckets <b>300</b> - straight spills <b>500, 800</b> - angled spills <b>400</b> - wire-wrap (3 levels) <b>600</b> - wire-wrap (2 levels)										
	EUROPEAN STANDARD HE 501										
	<b>052</b> - solder buckets <b>252</b> - straight spills <b>752</b> - angled spills										
	MIL-C-24308C QPL Qualified										
options	<b>C</b> - without bracket <b>M</b> - metal brackets <b>G</b> - harpoons (angled spills only) <b>H</b> - shielding termination fingers (solder buckets only)										
shell plating	<b>BLANK</b> - cadmium <b>T</b> - tin <b>Z</b> - zinc										
	X - dimples (standard on male tin plated shell)										

### technical characteristics:

<input type="checkbox"/> Shell	cadmium plated steel	<input type="checkbox"/> Operating temperature range	- 55 °C to + 125 °C
<input type="checkbox"/> Insulator	passivated standard thermoplastic	<input type="checkbox"/> Max. current rating	7.5 A per contact
<input type="checkbox"/> Contact diameter	self-extinguishing - UL 94 VO	<input type="checkbox"/> Contact resistance	≤ 7.3 mΩ
<input type="checkbox"/> Contact material	1 mm	<input type="checkbox"/> Insulation resistance	≥ 5000 MΩ
<input type="checkbox"/> Contact plating	copper alloy	<input type="checkbox"/> Max. voltage contacts (V.r.m.s 50Hz)	1000 V
<input type="checkbox"/> Termination plating	gold over nickel	<input type="checkbox"/> Rated voltage (V.r.m.s. 50Hz)	300 V
<input type="checkbox"/> Wire size	gold or tin over nickel	<input type="checkbox"/> Mechanical endurance	500 matings
<input type="checkbox"/> Max. diameter of insulated wire	lead AWG 20 max.	<input type="checkbox"/> Salt spray	48 hrs
	2.1 mm	<input type="checkbox"/> Damp heat	56 days
		<input type="checkbox"/> Removable contacts	No

## specific dimensions (other dimensions, see p. 18)

SOLDER BUCKETS		WIRE WRAP		STRAIGHT SPILLS													
		<table border="1"> <thead> <tr> <th>Termin.</th> <th>2..</th> <th>3..</th> </tr> </thead> <tbody> <tr> <td>A ± 0.5</td> <td>4.00</td> <td>5.10</td> </tr> <tr> <td>B ± 0.4</td> <td>9.00</td> <td>10.10</td> </tr> <tr> <td>ØC</td> <td>0.76</td> <td>0.63</td> </tr> </tbody> </table>		Termin.	2..	3..	A ± 0.5	4.00	5.10	B ± 0.4	9.00	10.10	ØC	0.76	0.63		
Termin.	2..	3..															
A ± 0.5	4.00	5.10															
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ØC	0.76	0.63															
ANGLED SPILLS		Termination															
		Dimension	5	8	7												
		A	2.54	2.84	2.84												
		B ± 0.1	9.40	9.40	7.19												
		C ± 0.3	4.00	4.00	3.90												
		D ± 0.1	9 to 37 contacts	7.20	7.20	6.34											
			50 contacts	8.60	8.60	7.67											
		ØE	0.63	0.63	0.76												

## Cross reference list for the main part numbers (HE5/MIL) and SOURIAU

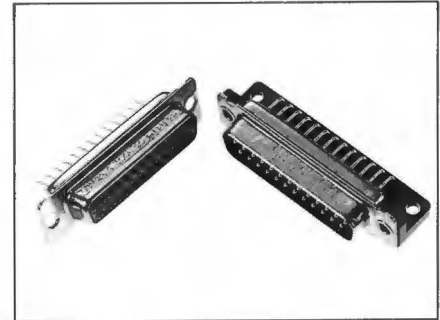
Connector type			HE 501	SOURIAU	MALE		FEMALE	
					MIL C24308C	SOURIAU	MIL C24308C	SOURIAU
Solder buckets	Standard	M	HE 501 N..AP3	D.M..P	M24308/3-1F	DEM09P052	M24308/1-1F	DEM09S052
		F	HE 501 N..AS3	D.M..S	M24308/3-2F	DAM15P052	M24308/1-2F	DAM15S052
	Float mounting	M	HE 501 F..AP3	D.MF..P	M24308/3-3F	DBM25P052	M24308/1-3F	DBM25S052
		F	HE 501 F..AS3	D.MF..S	M24308/3-4F	DCM37P052	M24308/1-4F	DCM37S052
Straight spills	Standard	M	HE 501 N..YP4.3	D.M..P 300	M24308/3-5F	DDM50P052	M24308/1-5F	DDM50S052
		F	HE 501 N..YS4.3	D.M..S 300	M24308/3-12F	DEMF09P052	M24308/1-23F	DEMF09S052
	Float mounting	M	HE 501 F..YP4.3	D.MF..P 300	M24308/3-13F	DAMF15P052	M24308/1-24F	DAMF15S052
		F	HE 501 F..YS4.3	D.MF..S 300	M24308/3-14F	DBMF25P052	M24308/1-25F	DBMF25S052
Wire wrap 2 levels	Standard	M	HE 501 N..KP2	D.M..P 600	M24308/3-15F	DCMF37P052	M24308/1-26F	DCMF37S052
		F	HE 501 N..KS2	D.M..S 600	M24308/3-16F	DDMF50P052	M24308/1-27F	DDMF50S052
	Float mounting	M	HE 501 F..KP2	D.MF..P 600	M24308/24-1F	DEM09P252	M24308/23-1F	DEM09S252
		F	HE 501 F..KS2	D.MF..S 600	M24308/24-2F	DAM15P252	M24308/23-2F	DAM15S252
Wire wrap 3 levels	Standard	M	HE 501 N..KP3	D.M..P 400	M24308/24-3F	DBM25P252	M24308/23-3F	DBM25S252
		F	HE 501 N..KS3	D.M..S 400	M24308/24-4F	DCM37P252	M24308/23-4F	DCM37S252
	Float mounting	M	HE 501 F..KP3	D.MF..P 400	M24308/24-5F	DDM50P252	M24308/23-5F	DDM50S252
		F	HE 501 F..KS3	D.MF..S 400	M24308/24-31F	DEM09P752	M24308/23-31F	DEM09S752
Angled spills 500	Standard	M	HE 501 P..VP6.3	D.M..P 500	M24308/24-32F	DAM15P752	M24308/23-32F	DAM15S752
		F	HE 501 P..VS6.3	D.M..S 500	M24308/24-33F	DBM25P752	M24308/23-33F	DBM25S752
	Metal brackets	M	HE 501 M..VP6.3	D.M..P 500M	M24308/24-34F	DCM37P752	M24308/23-34F	DCM37S752
		F	HE 501 M..VS6.3	D.M..S 500M	M24308/24-35F	DDM50P752	M24308/23-35F	DDM50S752
Angled spills 800	Standard	M	HE 501 P..VP7.3	D.M..P 800				
		F	HE 501 P..VS7.3	D.M..S 800				
	Metal brackets	M	HE 501 M..VP7.3	D.M..P 800M				
		F	HE 501 M..VS7.3	D.M..S 800M				

## DM séries-HE 508

For particularly severe applications, especially high temperatures (155°C).  
NF C 93425 / HE 508 - approved.

These connectors are manufactured under CCQ (Central Quality Control).

 UL rated product - File E77927



### ordering information

series	D	B	M	V	25	P	5	00	M	N	T	X
Shell size	E, A, B, C, D											
	M - characterization of DM series											
options	<b>BLANK</b> - standard mounting hole ( $\varnothing = 3.10$ ) <b>O</b> - clinch nut UNC 4.40 <b>L</b> - clinch nut M3 <b>V</b> - female screw lock <b>F</b> - float mounting <b>S</b> - spacers (straight spills only)											
number of contacts	09, 15, 25, 37, 50											
	<b>P</b> - pin <b>S</b> - socket											
termination type	<b>BLANK</b> (HE 5) or <b>O</b> (others) - solder buckets <b>2, 3</b> - straight spills <b>5, 7, 8</b> - angled spills <b>4</b> - wire-wrap (3 levels) <b>6</b> - wire-wrap (2 levels)											
	} machined contacts											
plating	<b>BLANK</b> - solder buckets <b>00</b> - other terminations <b>Other protections</b> - consult us											
	} HE 508											
options	<b>C</b> - without bracket <b>M</b> - metal brackets <b>G</b> - harpoons (angled spills only) <b>H</b> - shielding termination fingers (solder buckets only) <b>N</b> - obligatory for HE 508											
shell plating	<b>BLANK</b> - cadmium <b>T</b> - tin <b>Z</b> - zinc											
	X - dimples (standard on male tin plated shell)											

### Technical characteristics:

<input type="checkbox"/> Shell	cadmium plated steel passivated (standard)	<input type="checkbox"/> Operating temperature range	- 55°C to + 155°C
<input type="checkbox"/> Insulator	thermoset	<input type="checkbox"/> Max. current rating	7.5 A per contact
<input type="checkbox"/> Contact diameter	self-extinguishing UL 94 VO	<input type="checkbox"/> Contact resistance	≤ 7.3 mΩ
<input type="checkbox"/> Contact material	1 mm	<input type="checkbox"/> Insulation resistance	≥ 5000 MΩ
<input type="checkbox"/> Contact plating	copper alloy	<input type="checkbox"/> Max. voltage contacts (V.r.m.s 50 Hz)	1000 V
<input type="checkbox"/> Termination plating	gold over nickel	<input type="checkbox"/> Rated voltage (V.r.m.s 50 Hz)	300 V
<input type="checkbox"/> Wire size	gold or tin over nickel	<input type="checkbox"/> Mechanical endurance	500 matings
<input type="checkbox"/> max. diameter of insulated wire	AWG 20 max.	<input type="checkbox"/> Salt spray	48 hrs
	2.1 mm	<input type="checkbox"/> Damp heat	56 days
		<input type="checkbox"/> Removable contacts	No

## specific dimensions (other dimensions, see p. 18)

<p><b>SOLDER BUCKETS</b></p>		<table border="1"> <thead> <tr> <th>Termin.</th> <th>2..</th> <th>3..</th> </tr> </thead> <tbody> <tr> <td>Dimension</td> <td></td> <td></td> </tr> <tr> <td>A ± 0.5</td> <td>4.00</td> <td>5.10</td> </tr> <tr> <td>B ± 0.4</td> <td>9.20</td> <td>10.10</td> </tr> <tr> <td>ØC</td> <td>0.76</td> <td>0.63</td> </tr> </tbody> </table>	Termin.	2..	3..	Dimension			A ± 0.5	4.00	5.10	B ± 0.4	9.20	10.10	ØC	0.76	0.63
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ØC	0.76	0.63															
<p><b>WIRE WRAP</b></p> <p>2 levels</p>	<p>3 levels Diagonale 0.79-0.87</p>	<p><b>STRAIGHT SPILLS</b></p>															

<p><b>ANGLED SPILLS</b></p>	<table border="1"> <thead> <tr> <th>Termination</th> <th>5</th> <th>8</th> <th>7</th> </tr> </thead> <tbody> <tr> <td>Dimension</td> <td></td> <td></td> <td></td> </tr> <tr> <td>A</td> <td>2.54</td> <td>2.84</td> <td>2.84</td> </tr> <tr> <td>B ± 0.1</td> <td>9.40</td> <td>9.40</td> <td>7.19</td> </tr> <tr> <td>C ± 0.3</td> <td>4.00</td> <td>4.00</td> <td>3.90</td> </tr> <tr> <td rowspan="2">D ± 0.1</td> <td>9 to 37 contacts</td> <td>7.20</td> <td>6.34</td> </tr> <tr> <td>50 contacts</td> <td>8.60</td> <td>7.67</td> </tr> <tr> <td>ØE</td> <td>0.63</td> <td>0.63</td> <td>0.76</td> </tr> </tbody> </table>	Termination	5	8	7	Dimension				A	2.54	2.84	2.84	B ± 0.1	9.40	9.40	7.19	C ± 0.3	4.00	4.00	3.90	D ± 0.1	9 to 37 contacts	7.20	6.34	50 contacts	8.60	7.67	ØE	0.63	0.63	0.76
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	50 contacts	8.60	7.67																													
ØE	0.63	0.63	0.76																													

## Cross reference list HE 508/SOURIAU

connector type			HE 508	SOURIAU
Solder buckets	Standard	M	HE 508 N . AP	D.M. . PN
		F	HE 508 N . AS	D.M. . SN
	Float mounting	M	HE 508 F . AP	D.MF. . PN
		F	HE 508 F . AS	D.MF. . SN
Straight spills	Standard	M	HE 508 N . YP4	D.M. . P 300N
		F	HE 508 N . YS4	D.M. . S 300N
	Float mounting	M	HE 508 F . YP4	D.MF. . P 300N
		F	HE 508 F . YS4	D.MF. . S 300N
Wire wrap 2 levels	Standard	M	HE 508 N . KP2	D.M. . P 600N
		F	HE 508 N . KS2	D.M. . S 600N
	Float mounting	M	HE 508 F . KP2	D.MF. . P 600N
		F	HE 508 F . KS2	D.MF. . S 600N
Wire wrap 3 levels	Standard	M	HE 508 N . KP3	D.M. . P 400N
		F	HE 508 N . KS3	D.M. . S 400N
	Float mounting	M	HE 508 F . KP3	D.MF. . P 400N
		F	HE 508 F . KS3	D.MF. . S 400N

Connector type			HE 508	SOURIAU
Angled spills 500	Standard	M	HE 508 P . VP6	D.M. . P 500N
		F	HE 508 P . VS6	D.M. . S 500N
	Metal brackets	M	HE 508 M . VP6	D.M. . P 500MN
		F	HE 508 M . VS6	D.M. . S 500MN
Angled spills 800	Standard	M	HE 508 P . VP7	D.M. . P 800N
		F	HE 508 P . VS7	D.M. . S 800N
	Metal brackets	M	HE 508 M . VP7	D.M. . P 800MN
		F	HE 508 M . VS7	D.M. . S 800MN

Ex: HE 508 N 09 YS4 = DEM09S300N  
 HE 508 N 15 YS4 = DAM15S300N  
 HE 508 N 25 YS4 = DBM25S300N  
 HE 508 N 37 YS4 = DCM37S300N  
 HE 508 N 50 YS4 = DDM50S300N



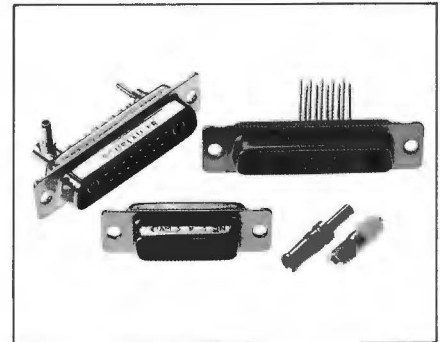
## DMW series with mixed contacts

Connectors derived from the DM series housing mixed arrangements of standard signal and special contacts (coax, power, high voltage, optical...) of a removable type.

Special contacts are selected in the table (p.11) and must be ordered separately.

This series meets the requirements of NF C 93425 - HE 507 specifications.

UL rated product - File E118235



### ordering information

series	<b>D B M L 13W3 P 5 00 M N T X</b>
shell size	
characterization of DMW series	
options	<b>BLANK</b> - standard mounting hole (∅ 3.10) <b>O</b> - clinch nut UNC 4.40 <b>L</b> - clinch nut M3 <b>V</b> - female screw lock <b>F</b> - float mounting <b>S</b> - spacers (straight spills only)
contact layouts	(see right)
	<b>P</b> - pin <b>S</b> - socket
termination type	<b>BLANK</b> (HE 5) or <b>O</b> (others) solder buckets <b>2, 3</b> - straight spills <b>5, 7, 8</b> - angled spills <b>4</b> - wire-wrap (3 levels) <b>6</b> - wire-wrap (2 levels) } machined contacts
plating	<b>BLANK</b> - solder buckets } Europe <b>00</b> - other terminations } standard
options	<b>C</b> - without bracket <b>M</b> - metal brackets <b>G</b> - harpoons (angled spills only) <b>H</b> - shielding termination fingers (solder buckets only) <b>N</b> - compulsory - in compliance with HE 507
shell plating	<b>BLANK</b> - cadmium <b>T</b> - tin <b>Z</b> - zinc <b>X</b> - dimples (standard on male tin plated shell)

### layouts

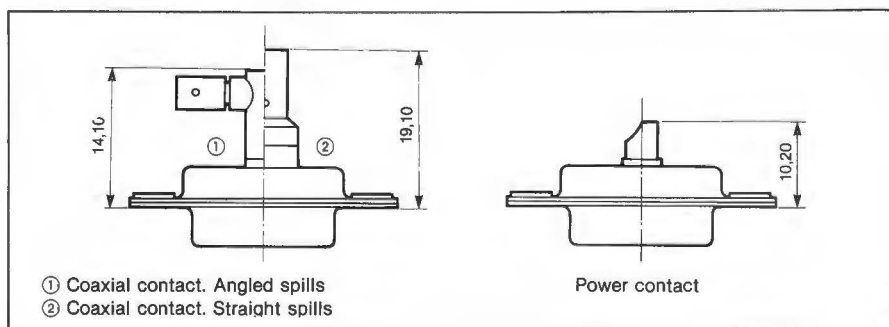
(male insulator frontview)

Shell size	Layout
<b>E</b>	5W1
	11W1
<b>A</b>	7W2
	3W3
<b>B</b>	21W1
	17W2
	13W3
	9W4
<b>C</b>	25W3
	21WA4
	27W2
	8W8
<b>D</b>	47W1
	24W7
	36W4

**technical characteristics:** see DM series, page 6

### specific dimensions

for standard terminations, see DM series, page 7.



• standard contacts  
● coaxial and power contacts

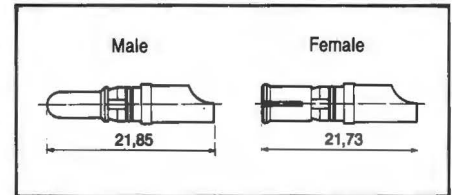
## Coax, power and high voltage contacts

These removable contacts are suitable for the contact cavities of the DMW series.  
The coax contacts are in compliance with NF.C. 93569-KMX specification.

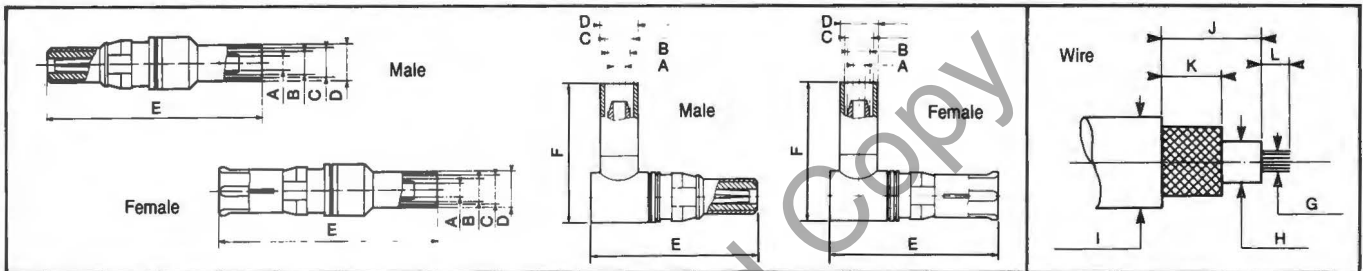
### power contact - taille 8 (to be ordered separately)

Wire size	Max. current	Part numbers	
		male	female
AWG8	40 A	8630-3098N	8630-3099N
AWG12	20 A	8630-3056N	8630-3057N

Wire size	Max. current	Part numbers	
		male	female
AWG14	15 A	8630-3060N	8630-3061N
AWG16	10 A	8630-3064N	8630-3065N

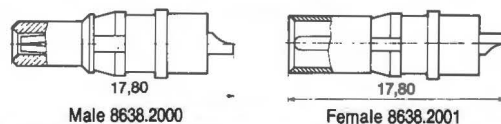


### coaxial contacts



Contact type		Screen solder	Screen crimp	A	B	C	D	E	F	MIL-C 17E	NFC 93530	Impedance 200 MHz	G	H	I	J	K	L			
																			male	female	
Straight	male	DM 53740 - 5008 NC	DM 53740 NC	1.00	1.75	2.32	3.20	23.60	RG178BU	KX21A	50 Ω ± 2	0.30	0.90	2.20		7.90	6.35	2.00			
	male	DM 53740 - 5000 NC	—					21.80											7.90	6.35	2.00
	female	DM 53742 - 5006 NC	DM 53742 NC					23.60											7.90	6.35	2.00
	female	DM 53742 - 5000 NC	—					21.80											7.90	6.35	2.00
Angled	male	DM 53741 - 5000 NC	DM 53741 - NC	1.70	2.46	3.13	3.84	18.64	RG179BU	KX3A KX22A	75 Ω ± 2	0.51	1.60	3.00		9.50	5.95	1.60			
	female	DM 53743 - 5000 NC	DM 53743 - 2 NC					18.64											9.50	5.95	1.60
Straight	male	DM 53740 - 5001 NC	DM 53740 - 1 NC	2.75	4.00	5.09	5.95	23.60	RG180BU		95 Ω ± 2	0.30	2.60	5.00		9.70	7.90	2.00			
	female	DM 53742 - 5001 NC	DM 53742 - 1 NC					23.60											9.70	7.90	2.00
Angled	male	DM 53741 - 5001 NC	DM 53741 - 1 NC	3.15	4.00	5.09	5.95	18.64	RG58CU	KX15A	50 Ω ± 2	0.90	3.00	5.00		10.70	7.90	2.40			
	female	DM 53743 - 5001 NC	DM 53743 - 3 NC					18.64											10.70	7.90	2.40
Straight	male	DM 53740 - 5002 NC	DM 53740 - 3 NC	3.15	4.00	5.09	5.95	23.60	RG58CU	KX15A	50 Ω ± 2	0.90	3.00	5.00		9.50	7.90	2.00			
	female	DM 53742 - 5002 NC	DM 53742 - 3 NC					23.60											9.50	7.90	2.00
Angled	male	DM 53741 - 5003 NC	DM 53741 - 3 NC	3.15	4.00	5.09	5.95	18.64	RG58CU	KX15A	50 Ω ± 2	0.90	3.00	5.00		10.70	7.90	2.40			
	female	DM 53743 - 5003 NC	DM 53743 - 5 NC					18.64											10.70	7.90	2.40
Straight	male	DM 53740 - 5005 NC	DM 53740 - 5 NC	3.15	4.00	5.09	5.95	23.60	RG58CU	KX15A	50 Ω ± 2	0.90	3.00	5.00		9.50	7.90	2.00			
	female	DM 53742 - 5004 NC	DM 53742 - 5 NC					23.60											9.50	7.90	2.00
Angled	male	DM 53741 - 5004 NC	DM 53741 - 4 NC	3.15	4.00	5.09	5.95	18.64	RG58CU	KX15A	50 Ω ± 2	0.90	3.00	5.00		10.70	7.90	2.40			
	female	DM 53743 - 5004 NC	DM 53743 - 6 NC					18.64											10.70	7.90	2.40

### high voltage contacts



#### electrical characteristics:

Dielectric with standing voltage: 2 800 V eff.  
Break down voltage: 3 200 V eff.  
Insulation resistance: 10<sup>6</sup> MΩ  
Contact resistance: ≤ 5 mΩ

#### mechanical characteristics:

mating force per set of contact: 3 N  
Mating endurance: 200  
Temperature: - 55 °C to + 125 C

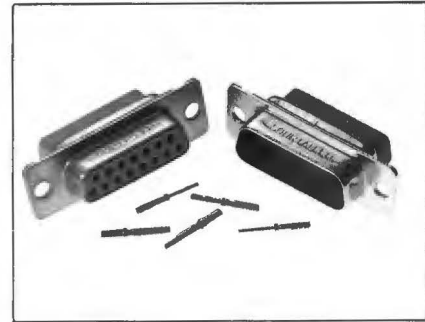
### tooling

Crimp tool: M 22520/5-01  
Locator: Y 278  
Coaxial contact extraction tool: 8630-07 A  
Power contact extraction tool: 8630-07

## 8630 series-HE 501

Connectors accommodating removable machined contacts crimp type for 20/24 or 26/28 AWG wires.

MIL-C.24308 C and NFC 93425 - HE 501 qualified - US-QPL listed and made under CCQ.



### ordering information

series	<b>8630 (8631 : float mounting)</b>	<b>0 25 P L T X</b>
options	BLANK - standard mounting hole ( $\varnothing = 3.10$ ) O - clinch nut UNC 4.40 L - clinch nut M3 V - female screw lock	
number of contacts	09, 15, 25, 37, 50	
	P - shell for pins S - shell for sockets	
options	BLANK - with standard 20/24 AWG contacts L - without contact	
shell plating	BLANK - cadmium (standard) T - tin Z - zinc	
	X - dimples (standard on male tin plated shell)	

### part number for the MIL.C 24308 C version (MIL.C 39029 contact)

series	<b>S B MA F T 25 P L N</b>
shell sizes	E, A, B, C, D
characterization of S.MA series	
option	F - float mounting
option	T - MIL tool
number of contacts	09, 15, 25, 37, 50
	P - shell for pins S - shell for sockets
	BLANK - with MIL contacts L - without contact
	N - compulsory for classified QPL version

Contact part number: see next page.

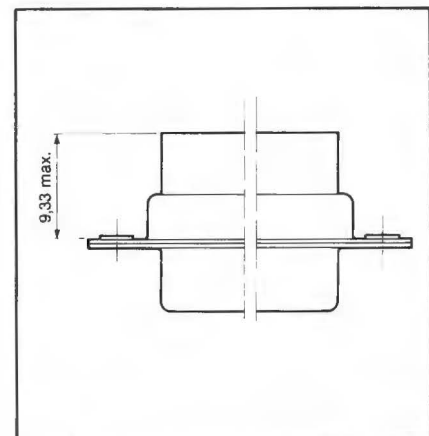
This series can be directly ordered with MIL part number. See page 15.

**Note:** connectors ordered with contacts are delivered with a plastic extraction tool.

### technical characteristics:

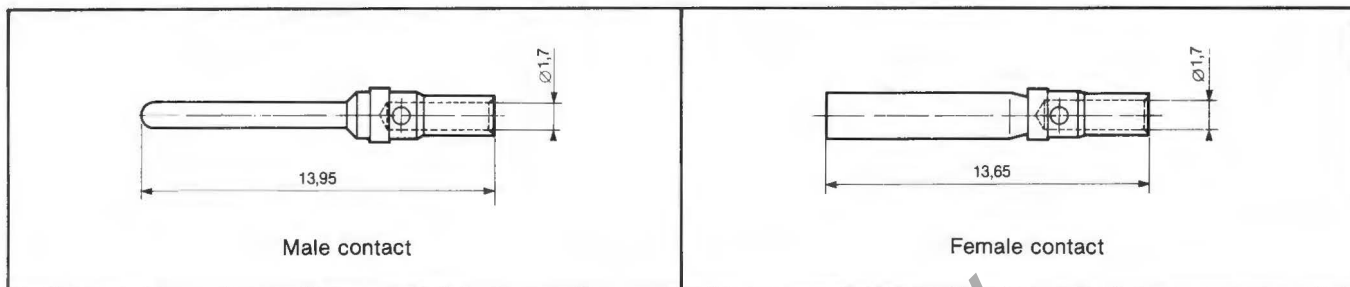
<input type="checkbox"/> Shell	cadmium plated steel passivated (standard)
<input type="checkbox"/> Insulator	thermoplastic self-extinguishing UL 94 VO
<input type="checkbox"/> Contact diameter	1 mm
<input type="checkbox"/> Contact material	copper alloy
<input type="checkbox"/> Contact plating	gold over nickel
<input type="checkbox"/> Contact termination	crimp
<input type="checkbox"/> Wire sizes	0.2 to 0.6 mm <sup>2</sup> (AWG 24 to 20)
	max. $\varnothing$ of insulated wire = 1.70 mm
<input type="checkbox"/> Mechanical endurance	500 matings
<input type="checkbox"/> Operating temperature range	- 55 °C to + 125 °C
<input type="checkbox"/> Max. current rating	7.5 A per contact
<input type="checkbox"/> Contact resistance	≤ 7.3 mΩ
<input type="checkbox"/> Insulation resistance	≥ 5000 MΩ
<input type="checkbox"/> Max. voltage contacts (V.r.m.s 50 Hz) at sea level	1000 V
<input type="checkbox"/> Salt spray	48 hrs
<input type="checkbox"/> Damp heat	56 days

### specific dimensions



## removable crimp contact ordering information (for 8630 series, HE 501 and HE 508)

Contacts for European standard (HE 501 and HE 508) AWG 20/24 and contacts AWG 26/28.



AWG 20/24	
male	female
8630-162	8630-165

AWG 26/28	
male	female
8631-4111	8631-6121

## contacts for MIL-C 24308 C connectors

	Contact type	Souriau	Norm	Color code
AWG 20/24	male	8630-3020 A	MIL-C. 39029-64 A	white/blue/orange
	female	8630-3022 A	MIL-C. 39029-63 A	grey/blue/orange

## thermocouple contacts (available on all 8630 series)

	Contact type	Constantan	Cupro-tellure	Chromel	Alumel
AWG 20/24	male	8630-466	8630-467	8630-432	8630-433
	female	8630-468	8630-469	8630-434	8630-435

## tooling part numbers

Tool	Part number	Norm	Souriau
Crimp tool		M22520/2-01	8476-01
Locator		M22520/2-08	8476-08
Plastic extraction tool		—	8630-06A
MIL extraction tool		M81969/18-2	8630-3330



## 8630 series-HE 508

**Class +155°C**

Connectors accommodating removable machined contacts crimp-type for 20/24 or 26/28 AWG wires.

For heavy duty applications.



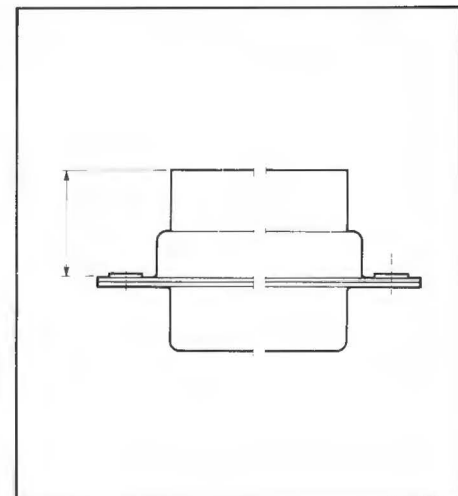
### ordering information

series	8630 (8631 float mounting)	L	25	P	L	N	T	X
options	<b>BLANK</b> - standard mounting hole ( $\varnothing = 3.10$ ) <b>O</b> - clinch nut UNC 4.40 <b>L</b> - clinch nut M3 <b>V</b> - female screw lock							
number of contacts	09, 15, 25, 37, 50							
	<b>P</b> - shell for pins <b>S</b> - shell for sockets							
options	<b>BLANK</b> - with standard 20/24 AWG contacts <b>L</b> - without contact <b>N</b> - compulsory for HE 508							
shell plating	<b>BLANK</b> - cadmium - standard <b>T</b> - tin <b>Z</b> - zinc <b>X</b> - dimples (standard on male tin plated shell)							

**Note:** to order this series with a higher plating of the MIL-C 24308 type, use SMA reference system (see p. 12) and delete suffix "N".  
 Ex.: SAMA 15 P.

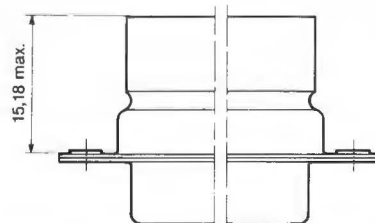
### specifics dimensions

- |  |  |
|--|--|
| <input type="checkbox"/> Shell   | cadmium plated steel passivated. (standard)  |
| <input type="checkbox"/> Insulator   | Thermoset self-extinguishing UL 94 VO  |
| <input type="checkbox"/> Contact diameter                                    | 1 mm   |
| <input type="checkbox"/> Contact material                                    | copper alloy   |
| <input type="checkbox"/> Contact plating                                     | gold over nickel   |
| <input type="checkbox"/> Contact termination                                 | crimp  |
| <input type="checkbox"/> Wire sizes  | 0.21 to 0.60 mm <sup>2</sup> (AWG 24 to 20)<br>max. $\varnothing$ of insulated wire: 1.70 mm |
| <input type="checkbox"/> Mechanical endurance                                | 500 matings  |
| <input type="checkbox"/> Operating temperature range                         | - 55 °C to + 155 °C  |
| <input type="checkbox"/> Max. current rating                                 | 7.5 A per contact  |
| <input type="checkbox"/> Contact resistance                                  | $\leq 7.3 \text{ m}\Omega$   |
| <input type="checkbox"/> Insulation resistance                               | $\geq 5000 \text{ M}\Omega$  |
| <input type="checkbox"/> Max. voltage contacts (V.r.m.s. 50 Hz) at sea level | 1000 V eff.  |
| <input type="checkbox"/> Salt spray  | 48 hrs   |
| <input type="checkbox"/> Damp heat   | 56 days  |



### proof versions

- 012:** drip-proof version.  
Grommet + potting + interfacial seal.  
Conform to IP 65
- 015:** dust-proof version.  
Rear grommet.



Ex.: 8630 25P012  
8630 37S015

# D.SUB

## 8630 series

### cross reference list for qualified part number HE 5 / MIL and SOURIAU

#### HE 501 and MIL-C 24308 C

Connector type			HE 501	SOURIAU
Removal crimp contact AWG 20/24	Standard	M	HE 501 N . . BP	8630 . . P
		F	HE 501 N . . BS	8630 . . S
	Float mounting	M	HE 501 F . . BP	8631 . . P
		F	HE 501 F . . BS	8631 . . S

Ex: HE 501 F 25 BP = 8631 25 P  
HE 501 N 37 BS = 8630 37 S

Connector type	Male		Female	
	MIL C 24308 C	SOURIAU	MIL C 24308 C	SOURIAU
Standard, with contacts, without extraction tool	M 24308/4-1F M 24308/4-2F M 24308/4-3F M 24308/4-4F M 24308/4-5F	SEMA09PN SAMA15PN SBMA25PN SCMA37PN SDMA50PN	M 24308/2-1F M 24308/2-2F M 24308/2-3F M 24308/2-4F M 24308/2-5F	SEMA09SN SAMA15SN SBMA25SN SCMA37SN SDMA50SN
Standard, with contacts, with Mil extraction tool	M 24308/4-6F M 24308/4-7F M 24308/4-8F M 24308/4-9F M 24308/4-10F	SEMAT09PN SAMAT15PN SBMAT25PN SCMAT37PN SDMAT50PN	M 24308/2-6F M 24308/2-7F M 24308/2-8F M 24308/2-9F M 24308/2-10F	SEMAT09SN SAMAT15SN SBMAT25SN SCMAT37SN SDMAT50SN
Standard, without contact, without extraction tool	M 24308/4-259F M 24308/4-260F M 24308/4-261F M 24308/4-262F M 24308/4-263F	SEMA09PN L SAMA15PN L SBMA25PN L SCMA37PN L SDMA50PN L	M 24308/2-281F M 24308/2-282F M 24308/2-283F M 24308/2-284F M 24308/2-285F	SEMA09SN L SAMA15SN L SBMA25SN L SCMA37SN L SDMA50SN L
Float mounting, with contacts, without extraction tool	M 24308/4-302F M 24308/4-303F M 24308/4-304F M 24308/4-305F M 24308/4-306F	SEMAF09PN SAMAF15PN SBMAF25PN SCMAF37PN SDMAF50PN	M 24308/2-342F M 24308/2-343F M 24308/2-344F M 24308/2-345F M 24308/2-346F	SEMAF09SN SAMAF15SN SBMAF25SN SCMAF37SN SDMAF50SN
Float mounting, with contacts, with Mil extraction tool	M 24308/4-313F M 24308/4-314F M 24308/4-315F M 24308/4-316F M 24308/4-317F	SEMAFT09PN SAMAFT15PN SBMAFT25PN SCMAFT37PN SDMAFT50PN	M 24308/2-353F M 24308/2-354F M 24308/2-355F M 24308/2-356F M 24308/2-357F	SEMAFT09SN SAMAFT15SN SBMAFT25SN SCMAFT37SN SDMAFT50SN

#### HE 508

Connector type			HE 508	SOURIAU
Removable crimp contacts AWG 20/24	Standard	M	HE 508 N . . BP	8630 . . PN
		F	HE 508 N . . BS	8630 . . SN
	Float mounting	M	HE 508 F . . BP	8631 . . PN
		F	HE 508 F . . BS	8631 . . SN

Ex: HE 508 N 09 BP = 8630 09 PN  
HE 508 N 15 BP = 8630 15 PN  
HE 508 N 25 BP = 8630 25 PN  
HE 508 N 37 BP = 8630 37 PN  
HE 508 N 50 BP = 8630 50 PN

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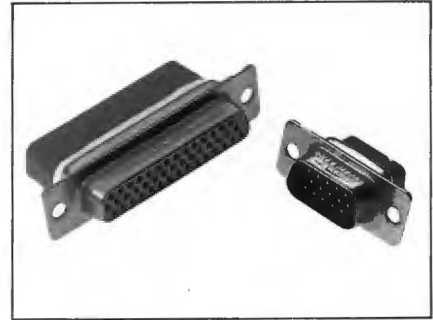
## 8635 series



SOURIAU 8635 connectors offer high density crimp contacts (size 22) in shell sizes E, A, B, C and D).

They are recommended for aerospace and military applications.

The 8635 connectors meet the requirements of M 24308 specification and a sealed version is also available (grommet and/or interfacial seal).



### ordering information

series	<b>8635 F 44 P 015 L T X</b>
options	<b>BLANK</b> - standard mounting hole ( $\varnothing = 3.10$ ) <b>O</b> - clinch nut UNC 4.40 <b>L</b> - clinch nut M3 <b>V</b> - female screw lock <b>F</b> - float mounting
number of contacts	15, 26, 44, 62, 78
	<b>P</b> - shell for pins <b>S</b> - shell for sockets
options	<b>BLANK</b> - standard <b>015</b> - dust-proof - see page 14 <b>012</b> - drip-proof - see page 14
	<b>BLANK</b> - with standard contacts <b>L</b> - without contact
shell plating	<b>BLANK</b> - cadmium <b>T</b> - tin <b>Z</b> - zinc
	<b>X</b> - dimples (standard on male tin plated shell)

### contact part numbers

	Type	Part numbers	Color code	
Standard	male	8635-4100		
	female	8635-9100		
MIL-C 24308 C	male	Souriau	8635-4110	
		MIL	M 39029/58-360	
	female	Souriau	8635-9110	orange/blue/black
		MIL	M 39029/57-354	Orange/green/yellow

### technical characteristics:

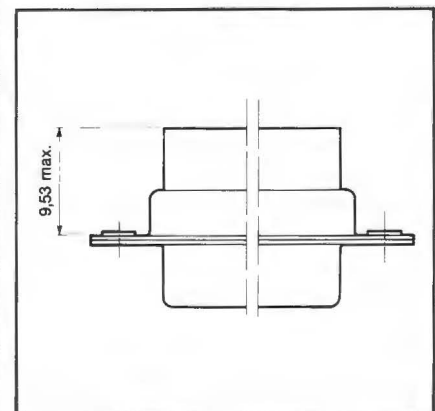
<input type="checkbox"/> Shell	cadmium plated steel passivated
<input type="checkbox"/> Insulator	thermoset self-extinguishing UL 94 VO
<input type="checkbox"/> Contact diameter	0.76 mm
<input type="checkbox"/> Contact material	copper alloy
<input type="checkbox"/> Contact plating	gold over nickel
<input type="checkbox"/> Contact termination	crimp
<input type="checkbox"/> Wires sizes	0.095 mm <sup>2</sup> to 0.34 mm <sup>2</sup> (AWG 28 to 22) $\varnothing$ max of insulator: 1.37 mm (AWG 22) $\varnothing$ min/max of insulator (type 012 and 015): 0.76 mm to 1.09 mm
<input type="checkbox"/> Operating temperature range	- 55 °C to + 155 °C
<input type="checkbox"/> Max. current rating	5 A per contact
<input type="checkbox"/> Contact resistance	$\leq 14.6$ m $\Omega$
<input type="checkbox"/> Insulation resistance	$\geq 5000$ M $\Omega$
<input type="checkbox"/> Max. voltage contact (V.r.m.s 50 Hz) at ground level	1000 V eff.
<input type="checkbox"/> Salt spray	48 hrs
<input type="checkbox"/> Damp heat	56 days

### tooling part numbers

- Crimp tool  
Souriau type: 8476-01  
Standard type: M22520/2-01
- Locator:  
male contacts: 8476-09 (M22520/2-09)  
female contacts: 8476-06 (M22520/2-06)
- plastic insertion tool:  
8599-0022 (M81969-14-01)

### specific dimensions

(other dimensions: see page 18).

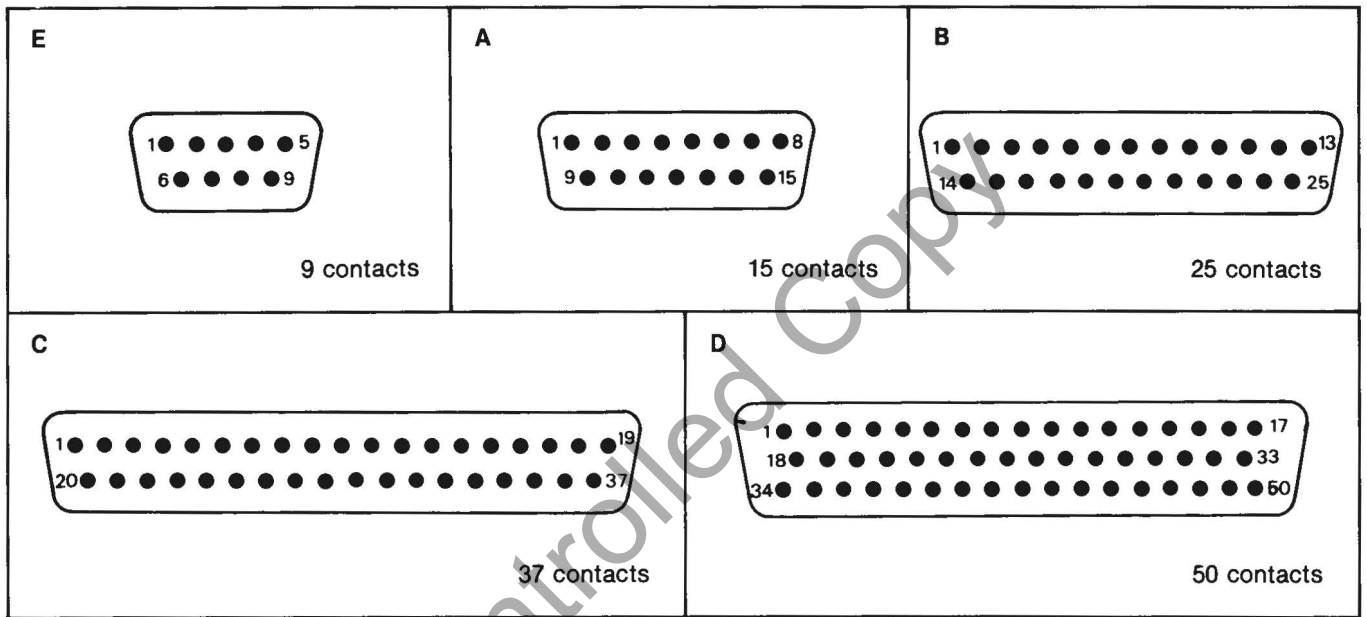


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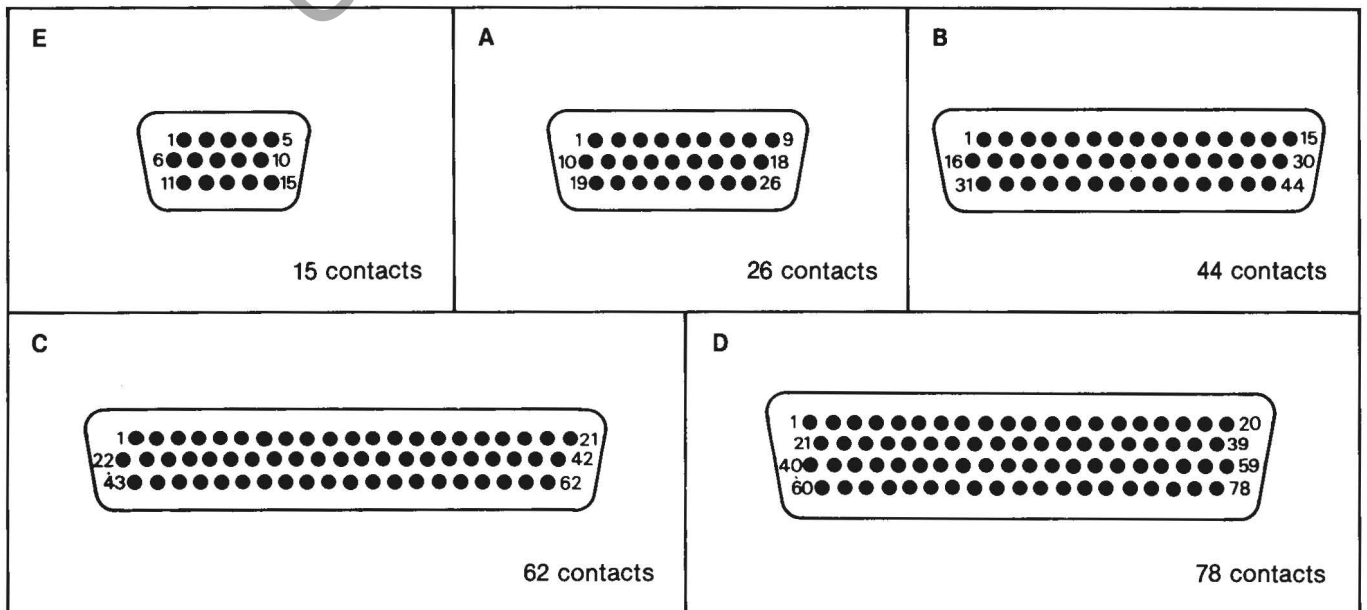
layouts (male insulator front view)

Contacts are individually numbered on both sides of the insulator.

## standard connector

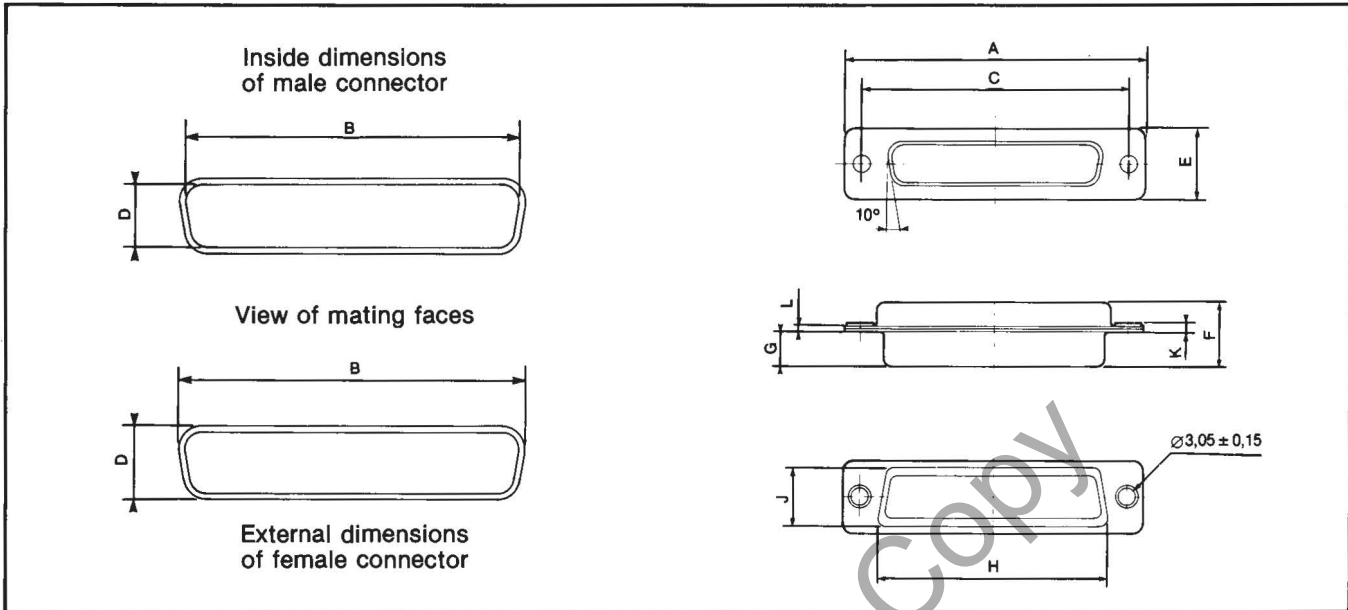


## high density connectors 8635 series



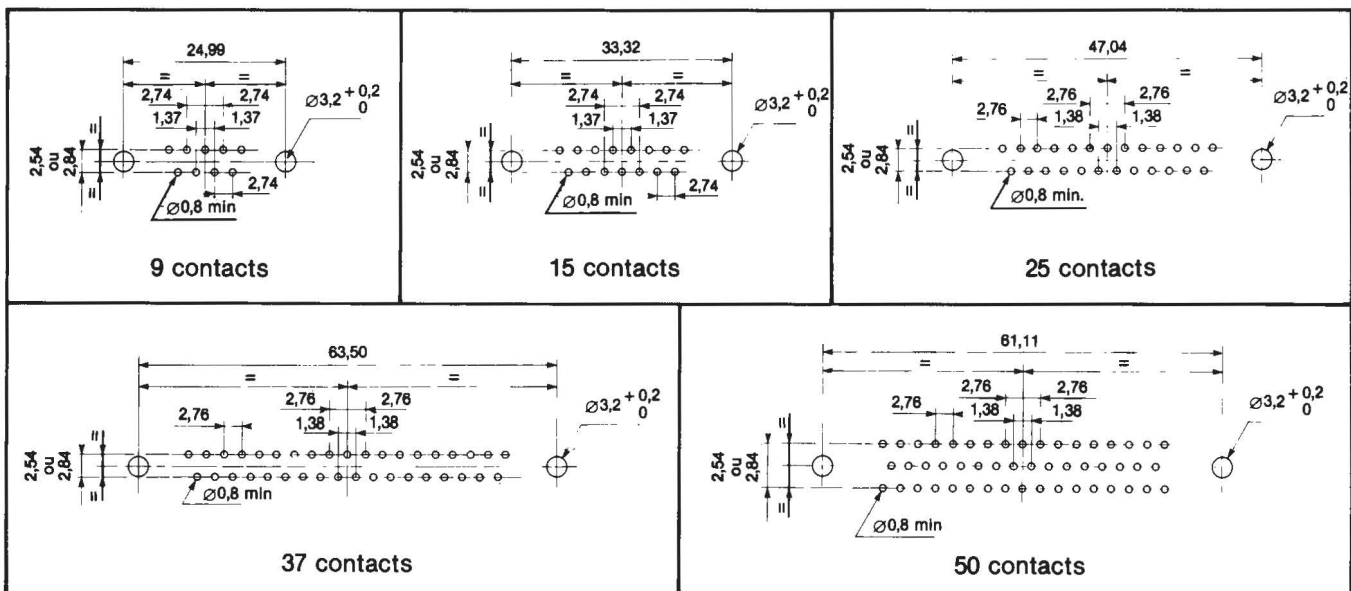


## shell dimensions

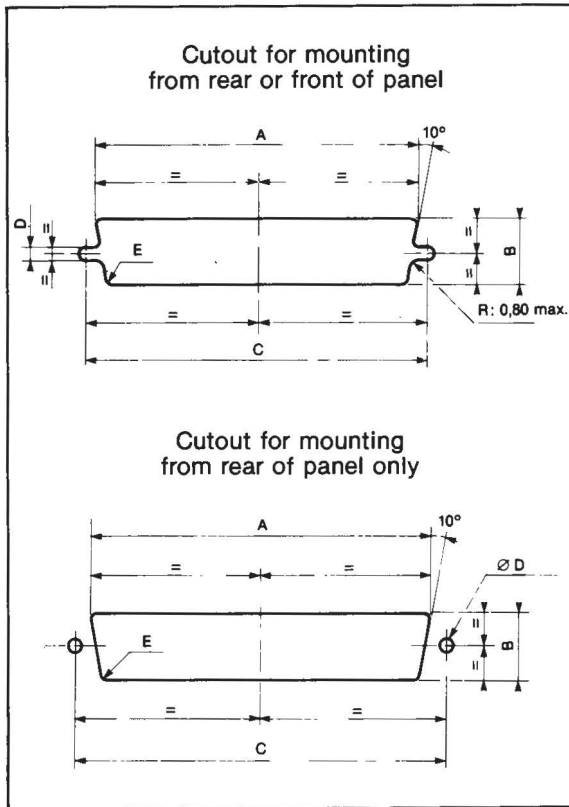


		A ± 0.38	B ± 0.13	C ± 0.13	D ± 0.13	E ± 0.38	F max.	G <sub>0</sub> <sup>+0.2</sup>	H ± 0.25	J ± 0.25	K ± 0.2	L ± 0.12
E	P	30.81	16.91	24.99	8.35	12.55	10.99	5.85	19.27	10.71	1.10	0.90
	S	30.81	16.33	24.99	7.89	12.55	11.21	6.05	19.27	10.71	1.10	0.90
A	P	39.14	25.24	33.32	8.35	12.55	10.99	5.85	27.50	10.71	1.10	0.90
	S	39.14	24.66	33.32	7.89	12.55	11.21	6.05	27.50	10.71	1.10	0.90
B	P	53.03	38.96	47.04	8.35	12.55	11.07	5.75	41.27	10.71	1.10	0.90
	S	53.03	38.37	47.04	7.89	12.55	11.21	6.05	41.27	10.71	1.10	0.90
C	P	69.32	55.42	63.50	8.35	12.55	11.09	5.75	57.70	10.71	1.50	1.11
	S	69.32	54.83	63.50	7.89	12.55	11.21	6.05	57.70	10.71	1.10	0.90
D	P	66.93	52.80	61.11	11.20	15.37	11.09	5.75	55.32	13.56	1.50	1.11
	S	66.93	52.42	61.11	10.74	15.37	11.21	6.05	55.32	13.56	1.10	0.90

## PC card drilling dimensions (mm) Nota: For MIL contacts ( $\varnothing 0.76$ ), drilling $\varnothing 1$ mm.



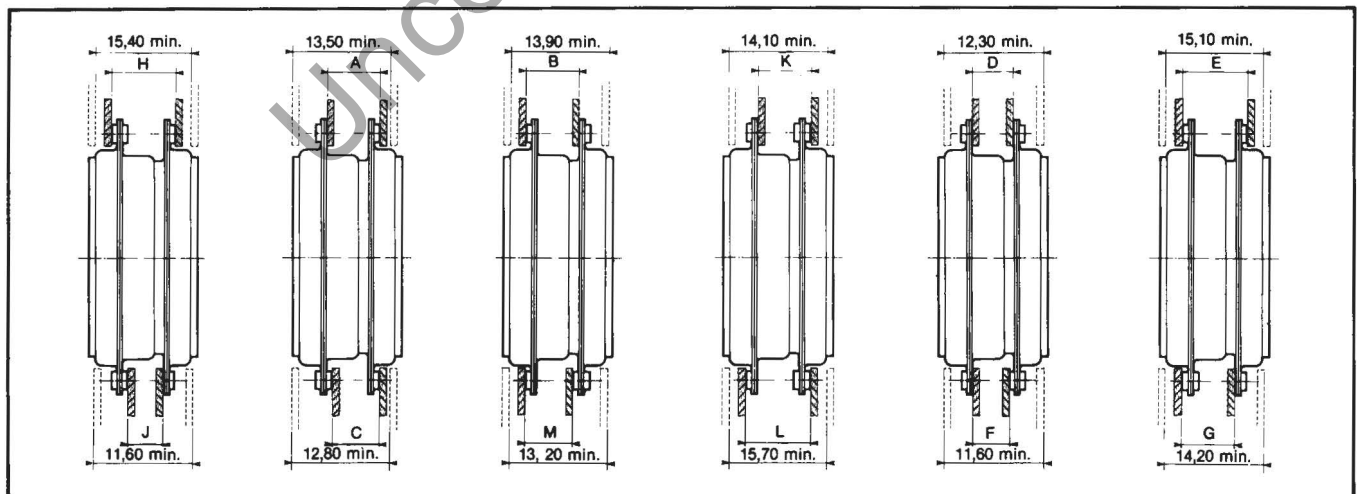
## panel cutouts:



Shell size	Type of mounting	Mounting position	A ±0.1	B ±0.1	C ±0.1	D ±0.05	E ±0.1
E	rigid	front	22.20	13.00	24.99	3.20	2.10
		rear	20.50	11.40	24.99	3.20	3.30
	float	front	23.00	13.80	24.99	2.20	2.10
		rear	21.30	12.20	24.99	2.20	3.30
A	rigid	front	30.50	13.00	33.32	3.20	2.10
		rear	28.80	11.40	33.32	3.20	3.30
	float	front	31.30	13.80	33.32	2.20	2.10
		rear	29.60	12.20	33.32	2.20	3.30
B	rigid	front	44.30	13.00	47.04	3.20	2.10
		rear	42.50	11.40	47.04	3.20	3.30
	float	front	45.10	13.80	47.04	2.20	2.10
		rear	43.30	12.20	47.04	2.20	3.30
C	rigid	front	60.70	13.00	63.50	3.20	2.10
		rear	59.10	11.40	63.50	3.20	3.30
	float	front	61.50	13.80	63.50	2.20	2.10
		rear	59.80	12.20	63.50	2.20	3.30
D	rigid	front	58.30	15.80	61.11	3.20	2.10
		rear	56.30	14.10	61.11	3.20	3.30
	float	front	59.20	16.60	61.11	2.20	2.10
		rear	57.20	14.90	61.11	2.20	3.30

## panel mounting

It is recommended that only one of a pair of connectors should have a float mounting. Rigid mounting connectors require 2 screws  $\varnothing 3$  mm, float mounting connectors require 2 screws  $\varnothing 2$  mm.



Shell size	A	B	C	D	E	F	G	H	J	K	L	M
E	7.65	7.65	6.85	6.45	8.85	5.65	8.25	9.45	5.65	8.25	9.45	6.85
A	7.65	7.65	6.85	6.45	8.85	5.65	8.25	9.45	5.65	8.25	9.45	6.85
B	7.55	7.55	6.75	6.35	8.75	5.55	8.15	9.35	5.55	8.15	9.35	6.75
C	7.55	7.95	6.75	6.35	9.15	5.55	8.35	9.55	5.55	8.15	9.75	7.15
D	7.55	7.95	6.75	6.35	9.15	5.55	8.35	9.55	5.55	8.15	9.75	7.15