

D-SUB Series

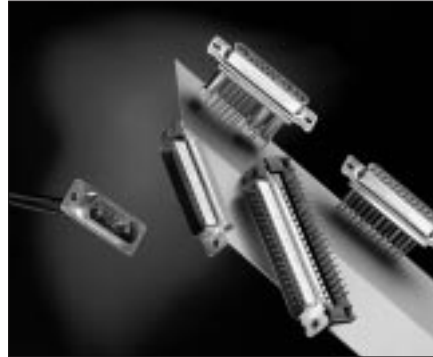


Applications

For military and aerospace applications.

Standards

MIL-C 24308C
HE 501
HE 508
HE 507



Description

- 5 layouts
- PCB board and cable version with solder or crimp contacts
- Mixed versions available : coax. power. thermocouple.
- All types of accessories.

Characteristics

Mechanical

- Shell : cadmium plated steel
- Insulator : monothermoset and two parts thermoplastics
- Contacts : machined copper alloy
- Plating : gold over nickel

Electrical

- Max current rating per contact : 7.5 A
- Dielectric DWV : 1000 Vrms
- Rated voltage : 300 Vrms
- Insulation resistance : $\geq 5000 \text{ M}\Omega$
- Contact resistance : $\leq 10 \text{ m}\Omega$

Climatical

- Working temperature : -55°C to +125° C or +155°C
- Salt spray : 48 hours
- Damp heat : 56 hours
- Vibration : according to MIL-C 24308C

DM Series HE 501

Ordering information

solder version (DM - Series)	D	B	M	F	25	P	5	00	M
shell size	E, A, B, C, D								
	M - characterization of MIL Series								
options 1	Blank - standard mounting holes ($\varnothing = 3.10$) L - clinch nuts M3 F - float mounting								
number of contacts	09, 15, 25, 37, 50								
contacts	P - pin S - socket								
termination	Blank - solder buckets 3 - straight solder spills 5 - angle solder spills 4 - wire wrap (3 levels)								
plating	00 - standard = gold/nickel (active areas) - Tin lead (termination) (blank for solder buckets termination) others - please consult us								
options 2	angle spills Blank - plastic brackets C - without brackets M - metal brackets				other termination not applicable not applicable not applicable				

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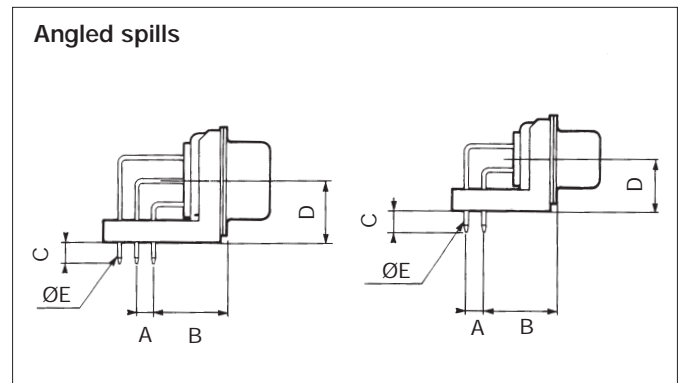
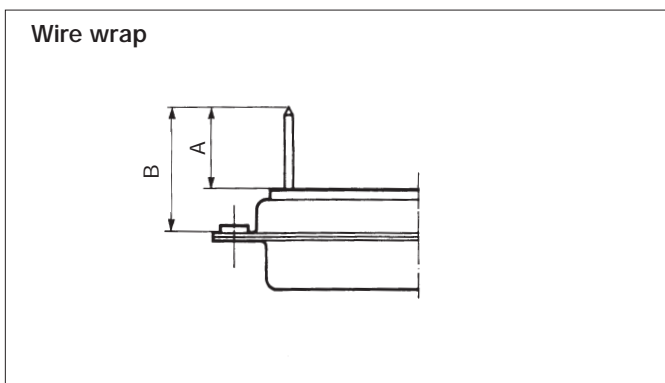
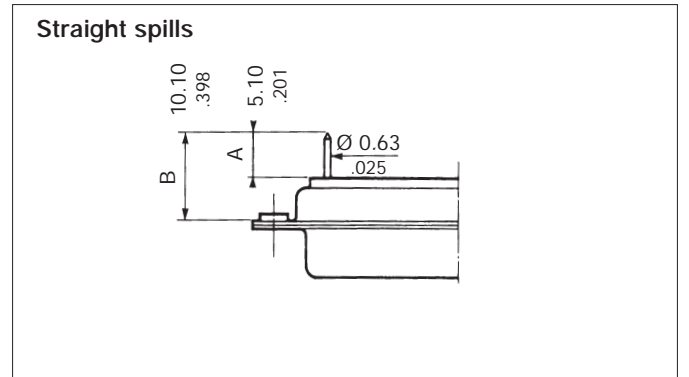
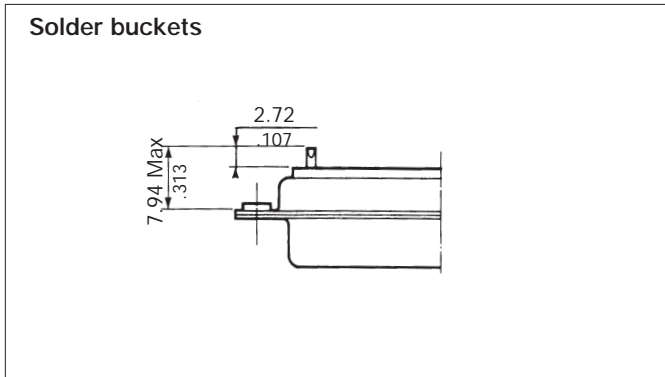


Cross reference list for the main HE 501 and FCI Souriau

Part numbers				
Connector type			HE 501	SOURIAU
Solder buckets	Standard	M	HE 501 N..AP3	D.M..P
		F	HE 501 N..AS3	D.M..S
	Float mounting	M	HE 501 F..AP3	D.MF..P
		F	HE 501 F..AS3	D.MF..S
Straight spills	Standard	M	HE 501 N..YP4.3	D.M..P 300
		F	HE 501 N..YS4.3	D.M..S 300
	Float mounting	M	HE 501 F..YP4.3	D.MF..P 300
		F	HE 501 F..YS4.3	D.MF..S 300

Part numbers				
Connector type			HE 501	SOURIAU
Wire wrap 3 levels	Standard	M	HE 501 N..KP3.3	D.M..P 400
		F	HE 501 N..KS3.3	D.M..S 400
	Float mounting	M	HE 501 F..KP3.3	D.MF..P 400
		F	HE 501 F..KS3.3	D.MF..S 400
Angled spills 500	Standard	M	HE 501 P..VP6.3	D.M..P 500
		F	HE 501 P..VS6.3	D.M..S 500
	Metal brackets	M	HE 501 M..VP6.3	D.M..P 500M
		F	HE 501 M..VS6.3	D.M..S 500M

Dimensions



	3 levels
A	12.70 .500
B	18.40 .724
∅	0.79 x 0.87 .031 x .034

Dimension	Termination	5
A		2.54 .100
B		10.30 .406
C		4.00 .157
D	9 to 37 contacts	7.20 .283
	50 contacts	8.60 .339
∅E		0.63 .025

D-SUB Series



8630 Series HE 501 (crimp version) Ordering information

Series (8631 : Float mounting)	8630	1	25	P	L
option 1 Blank - standard mounting holes ($\varnothing = 3.10$)					
number of contacts 09, 15, 25, 37, 50					
contacts P - pin S - socket					
Blank with standard 20/24 AWG contacts L - without contact					

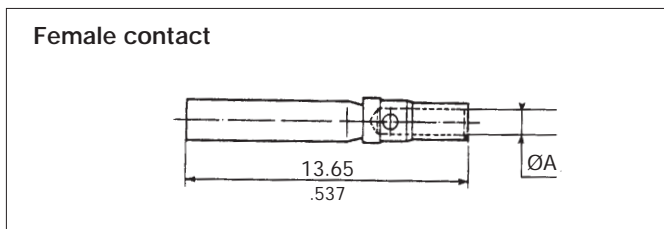
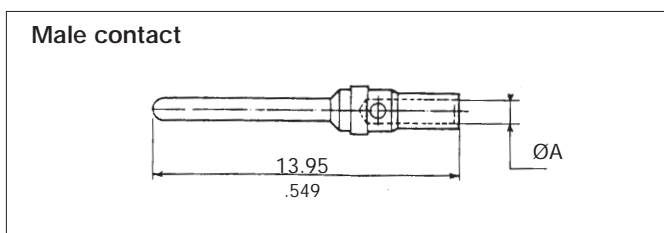
Cross reference list for qualified part number HE 501 and FCI Souriau

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

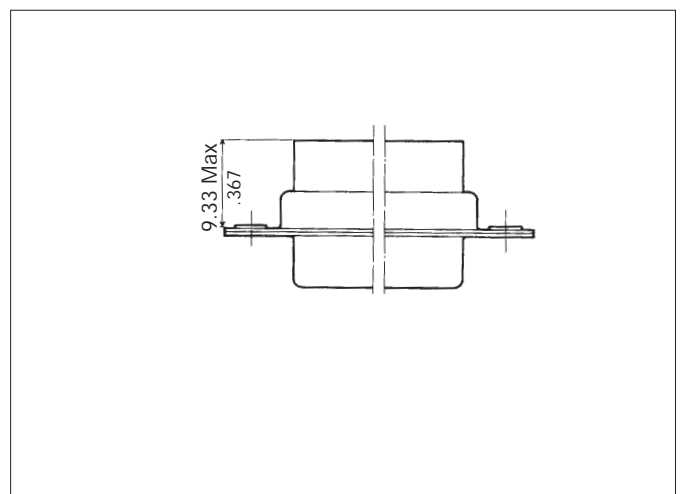
Thermocouple contacts

	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

Removable crimp contact part numbers



Specific dimension



AWG	Male	Female	ØA
20 / 24	8630-162	8630-165	1.17 .046
26/28	8631-4111	8631-6121	0.6 .024

D-SUB Series



DM Series HE 508

Ordering information

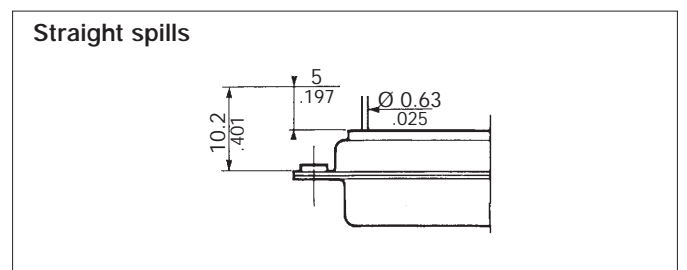
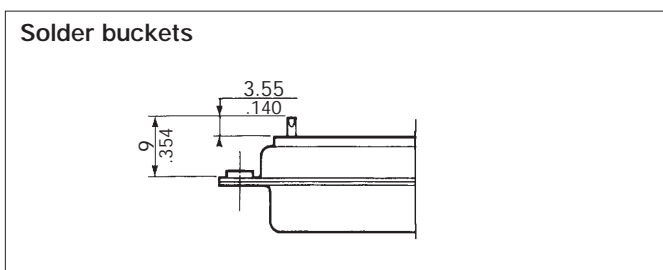
solder version (DM - Series)	D	B	M	F	25	P	5	00	M	N
shell size	E, A, B, C, D		M - characterization of MIL Series							
options 1	Blank - standard mounting holes (Ø = 3.10)		F - float mounting							
number of contacts	09, 15, 25, 37, 50									
contacts	P - pin		S - socket							
termination	Blank - solder buckets		3 - straight solder spills		5 - angle solder spills		4 - wire wrap (3 levels)			
plating	00 - standard = gold/nickel (blank for solder buckets termination)		others - please consult us							
options 2	angle spills		other terminations							
	Blank - plastic brackets		not applicable							
	C - without brackets		not applicable							
	M - metal brackets		not applicable							
	N - obligatory for HE 508									

Cross reference list for the main HE 508 and FCI SOURIAU

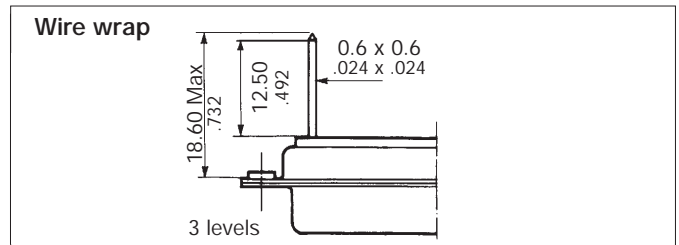
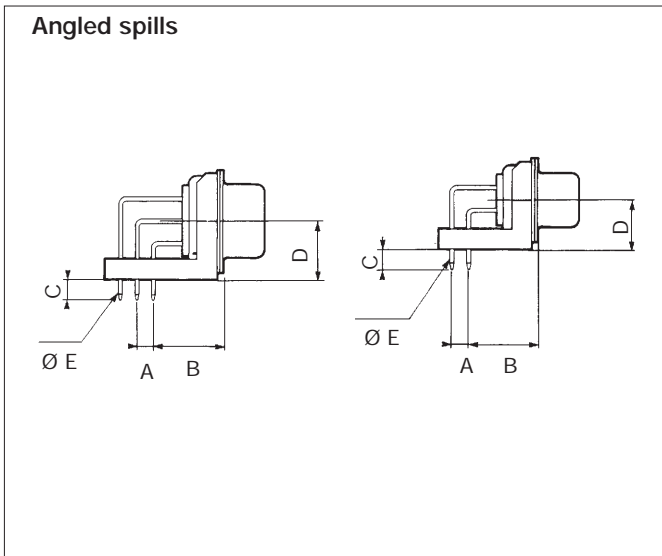
Part numbers				
Connector type			HE 508	FCI Souriau
Solder buckets	Standard	M	HE 508 N..AP	D.M..PN
		F	HE 508 N..AS	D.M..SN
	Float mounting	M	HE 508 F..AP	D.MF..PN
		F	HE 508 F..AS	D.MF..SN
Straight spills	Standard	M	HE 508 N..YP4	D.M..P300N
		F	HE 508 N..YS4	D.M..S300N
	Float mounting	M	HE 508 F..YP4	D.MF..P300N
		F	HE 508 F..YS4	D.MF..S300N

Part numbers				
Connector type			HE 508	FCI Souriau
Wire wrap 3 levels	Standard	M	HE 508 N..KP3	D.M..P400N
		F	HE 508 N..KS3	D.M..S400N
	Float mounting	M	HE 508 F..KP3	D.MF..P400N
		F	HE 508 F..KS3	D.MF..S400N
Angled spills 500	Standard	M	HE 508 P..VP6	D.M..P500N
		F	HE 508 N..VS6	D.M..S500N
	Metal brackets	M	HE 508 F..VP6	D.MF..P500MN
		F	HE 508 F..VS6	D.MF..S500MN

Dimensions



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Dimension	Termination	5
A		2.54 .100
B		10.30 .406
C		4.00 .157
D	9 to 37 contacts	7.20 .283
	50 contacts	8.60 .339
ØE		0.63 .025

8630 Series HE 508 (crimp version) Ordering information

Series (8631 : Float mounting)	8630	25	P	012	L	N
Option 1 Blank - standard mounting holes (Ø = 3.10)						
number of contacts 09, 15, 25, 37, 50						
contacts P - pin S - socket						
Blank - standard 012 - dip-proof 015 - dust-proof						
Blank - with standard 20/24 AWG contacts L - without contact						
N - obligatory for HE 508 (except for 012 dip-proof version)						

Cross reference list for qualified part number HE 508/FCI Souriau

Example :

HE 508 N 2 5 BP=8630 25 PN

Part numbers				
Connector type		HE 508		FCI 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

Special proof versions (available only in HE 508 Series)

Example :

8630 25 P012

012 : dip-proof version.

Grommet + potting + male interfacial seal.

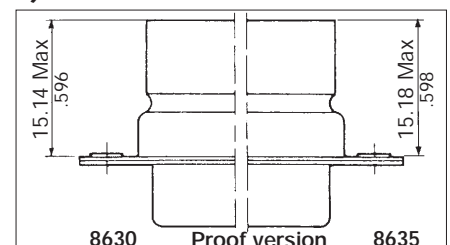
Conform to IP 65

Example :

8630 25 P015

015 : dust-proof version

Rear grommet only.



D-SUB Series

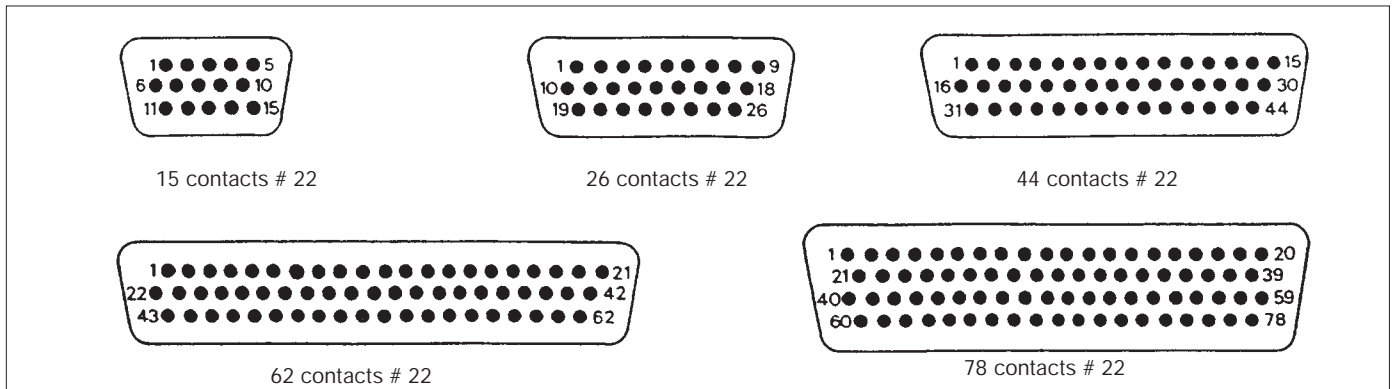


8635 High density connectors Ordering information

Series	8635	F	44	P	012	L
Options 1	Blank : Standard mounting holes ($\varnothing = 3.10$) F : Float mounting					
Number of contacts	15, 26, 44, 62, 78					
Contact	P : Pin S : Socket					
	Blank : Standard 012 : Splash proof 015 : Dust proof 017 : Straight spills					
	Blank : With standard contacts L : Without contact					

Diameter of the insulator cable Max : 1.4 mm

Contact layouts (male insulator front view)



Contact part number

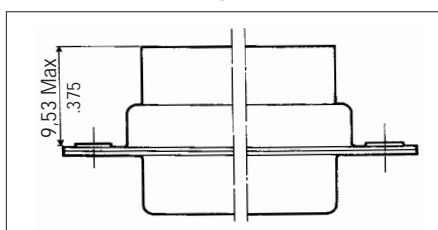
	Type	Part numbers
Standard	Male	8635-4100
	Female	8635-9100
MIL-C-24308 Plating	Male	8635-4110
	Female	8635-9110

Tooling part number

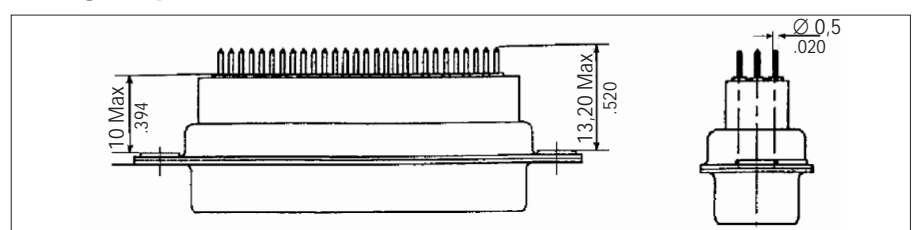
Tool	Manufacturer P/N	FCI Souriau P/N
Crimp tool	M22520/2-01	8476-01
Locator male contact	M22520/2-09	8476-09
Locator female contact	M22520/2-06	8476-06
Plastic install / Extraction tool	M81969-14-01	8599-0022

Dimensions

Standard crimp version



Straight spills version 017



The 8635 Connectors meet the requirements of MIL-C 24308 dust and splash proof specifications.

D-SUB Series



DM Series MIL-C-24308C Ordering information

solder version (DM - serie)	D	B	M	F	25	P	7	52	M
shell size	E, A, B, C, D		M - characterization of MIL Series						
options 1	Blank - standard mounting holes (Ø = 3.10) F - float mounting								
number of contacts	09, 15, 25, 37, 50								
contacts	P - pin S - socket								
termination	0 - solder buckets 2 - straight solder spills 7 - angle solder spills								
plating	52 - standard = gold/nickel active areas - Tin lead termination								
option 2	angle spills Bank - plastic brackets C - without brackets M - metal brackets				other termination not applicable not applicable not applicable				

Cross reference list for the main MIL and FCI Souriau

	Part numbers			
	Male		Female	
	MIL-C-24308 C	FCI Souriau	MIL-C-24308 C	FCI Souriau
Solder buckets	M24308/3-1F	DEM09P052	M24308/1-1F	DEM09S052
	M24308/3-2F	DAM15P052	M24308/1-2F	DAM15S052
	M24308/3-3F	DBM25P052	M24308/1-3F	DBM25S052
	M24308/3-4F	DCM37P052	M24308/1-4F	DCM37S052
	M24308/3-5F	DDM50P052	M24308/1-5F	DDM50S052
Solder buckets	M24308/3-12F	DEMF09P052	M24308/1-23F	DEMF09S052
	M24308/3-13F	DAMF15P052	M24308/1-24F	DAMF15S052
float mounting	M24308/3-14F	DBMF25P052	M24308/1-25F	DBMF25S052
	M24308/3-15F	DCMF37P052	M24308/1-26F	DCMF37S052
	M24308/3-16F	DDMF50P052	M24308/1-27F	DDMF50S052

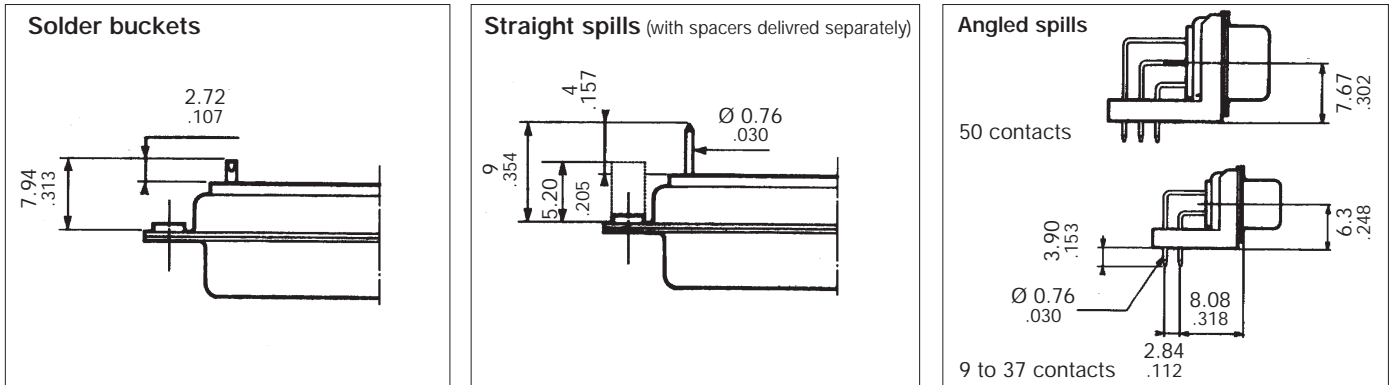
	Part numbers			
	Male		Female	
	MIL-C-24308 C	FCI Souriau	MIL-C-24308 C	FCI Souriau
Straight spills	M24308/24-1F	DEM09P252	M24308/23-1F	DEM09S252
	M24308/24-2F	DAM15P252	M24308/23-2F	DAM15S252
	M24308/24-3F	DBM25P252	M24308/23-3F	DBM25S252
	M24308/24-4F	DCM37P252	M24308/23-4F	DCM37S252
	M24308/24-5F	DDM50P252	M24308/23-5F	DDM50S252
Angled spills	M24308/24-31F	DEM09P752	M24308/23-31F	DEM09S752
	M24308/24-32F	DAM15P752	M24308/23-32F	DAM15S752
	M24308/24-33F	DBM25P752	M24308/23-33F	DBM25S752
	M24308/24-34F	DCM37P752	M24308/23-34F	DCM37S752
	M24308/24-35F	DDM50P752	M24308/23-35F	DDM50S752

Above P/N are also available in the 155°C class. please, consult the factory.

D-SUB Series



Dimensions

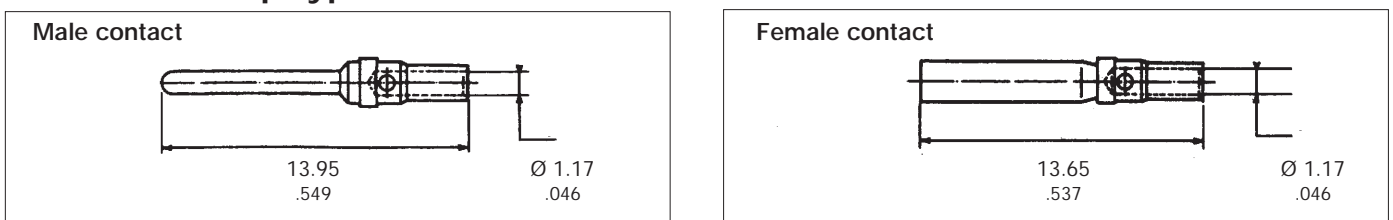


SMA Series MIL-C (crimp version)

Ordering information

series	S	B	MA	F	25	P	L	N
shell size	E, A, B, C, D							
S.MA Series								
options 1	Blank - standard F - float mounting							
number of contacts	09, 15, 25, 37, 50							
contacts	P - pin S - socket							
	Blank - with MIL contacts L - without MIL contacts							
	N - obligatory for classified QPL version							
These series can be directly ordered with MIL part numbers								

Contacts crimp type for 20/24 AWG wires



Contacts MIL-C-24308 C

Wire size for cable	Contact type	FCI Souriau	Part number	Color code
AWG 20/24	Male	8630-3020 A	MIL-C-39029/64-369	Orange/Blue/White
	Female	8630-3022 A	MIL-C-39029/63-368	Orange/Blue/Grey

Thermocouple contacts

Wire size for cable	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



Cross reference list for qualified part number MIL/and FCI Souriau Connectors

Connector type	Male		Female	
	MIL-C-24308C	FCI Souriau	MIL-C-24308C	FCI Souriau
Standard. with contacts	M 24308/4-1F	SEMA09PN	M 24308/2-1F	SEMA09SN
	M 24308/4-2F	SAMA15PN	M 24308/2-2F	SAMA15SN
	M 24308/4-3F	SBMA25PN	M 24308/2-3F	SBMA25SN
	M 24308/4-4F	SCMA37PN	M 24308/2-4F	SCMA37SN
	M 24308/4-5F	SEDA50PN	M 24308/2-5F	SDMA50SN
Standard. without contact *	M 24308/4-259F	SDMA09PLN	M 24308/2-281F	SEMA09SLN
	M 24308/4-260F	SAMA15PLN	M 24308/2-282F	SAMA15SLN
	M 24308/4-261F	SBMA25PLN	M 24308/2-283F	SBMA25SLN
	M 24308/4-262F	SCMA37PLN	M 24308/2-284F	SCMA37SLN
	M 24308/4-263F	SDMA50PLN	M 24308/2-285F	SDMA50SLN
Float mounting with contacts	M 24308/4-302F	SEMAF09PN	M 24308/2-342F	SEMAF09SN
	M 24308/4-303F	SAMAF15PN	M 24308/2-343F	SAMAF15SN
	M 24308/4-304F	SAMAF25PN	M 24308/2-344F	SBMAF25SN
	M 24308/4-305F	SCMAF37PN	M 24308/2-345F	SCMAF37SN
	M 24308/4-306F	SDMAF50PN	M 24308/2-346F	SDMAF50SN
Float mounting without contacts *			M 24308/2-482F	SEMAF09SLN
			M 24308/2-483F	SAMAF15SLN
			M 24308/2-484F	SBMAF25SLN
			M 24308/2-485F	SCMAF37SLN
			M 24308/2-486F	SDMAF50SLN

Note : above D/numbers are also available in class 155°C. Please consult us.

* For the version without contact, the MIL marking of connectors is the same as the versions with contacts.

Tooling part numbers for HE 501 - HE 508 and MIL-C 24308C

Tool	Part number	Manufacturer PN	FCI Souriau
Crimp tool		M 22520/2-01	8476-01
Locator		M 22520/2-08	8476-08
Plastic extraction tool		-	8630-06A
MIL tool (T)		M 81969/1-02	8630-3330

D-SUB Series



DMW Series HE 507 (mixed arrangements) Ordering information

solder version (DM - Series)	D	B	M	F	13W3	P	5	00	M	N
shell size	E, A, B, C, D									
	M - characterization of MIL Series									
options 1	Blank - standard mounting holes (Ø = 3.10) F - float mounting									
contact layout	See below									
contacts	P - pin S - socket									
termination	Blank - solder buckets 3 - straight solder spills 5 - angled solder spills 4 - wire wrap (3 levels)									
plating	00 - standard = gold/nickel active areas - Tin lead or gold termination (blank for solder buckets termination)									
options 2	angled spills Blank - plastic brackets C - without brackets M - metal brackets N - compulsory in compliance with HE 507					other termination not applicable not applicable not applicable				

Layouts

Male insulator front view

Shell size	Layout	
E	5W1	
A	11W1	
	7W2	
	3W3	
B	3V3	
	21W1	
	17W2	
	13W3	
	9W4	

Shell size	Layout	
B	5W5	
C	25W3	
	21WA4	
	27W2	
	8W8	
D	47W1	
	24W7	
	36W4	

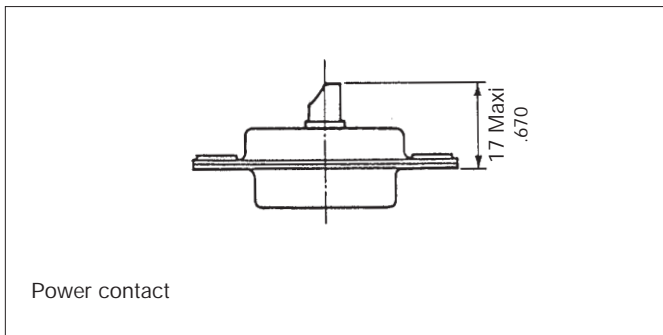
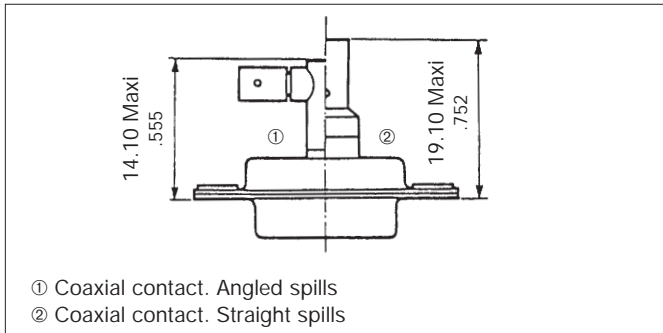
• Standard contacts ● Coaxial and power contacts

D-SUB Series

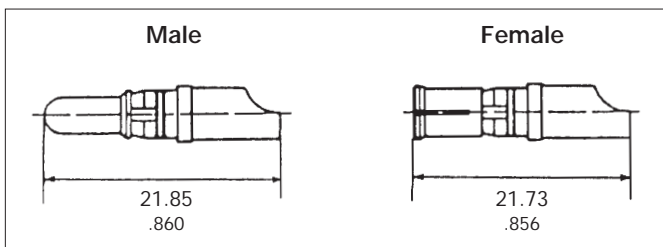


Specific dimensions

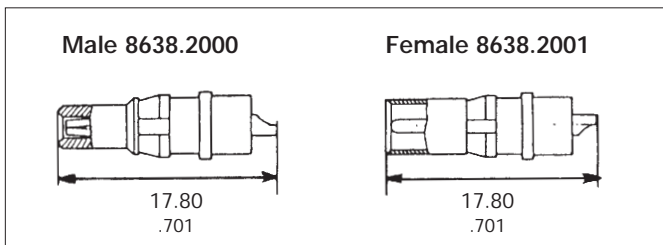
(for standard terminations. see DM Series)



Power contacts



High voltage contacts



Tooling

Crimp tool : M22520/5-01

Locator : Y278

Extraction tool	Part number
Coaxial contact	8630-07A
Power contact High Voltage Contact	8630-07

Wire size	Max. current	Part numbers	
		Male	Female
AWG8	40A	8630-3098N	8630-3099N
AWG12	20A	8630-3056N	8630-3057N
AWG14	15A	8630-3060N	8630-3061N
AWG16	10A	8630-3064N	8630-3065N

Electrical characteristic

- Dielectric withstanding voltage : 2800 Vrms
- Break down voltage : 3200 Vrms
- Insulation resistance : 10^9 M Ω
- Contact resistance : ≤ 5 m Ω
- Max current rating : 5A
- Material : TEFLON

Mechanical characteristic

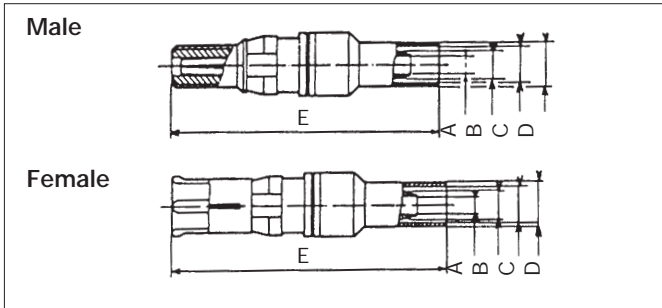
- Mating force per set of contact : 3N
- Mating endurance : 200
- Temperature : -55°C to + 125°C

D-SUB Series

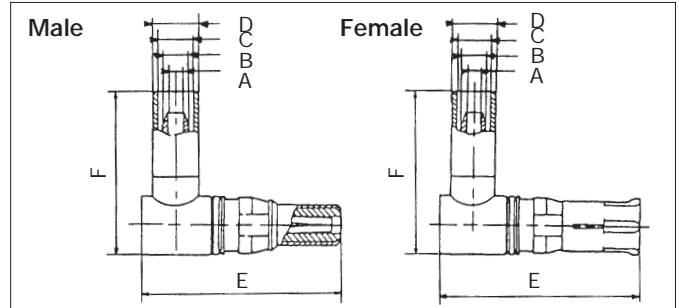


Coaxial contacts

Straight



Angled



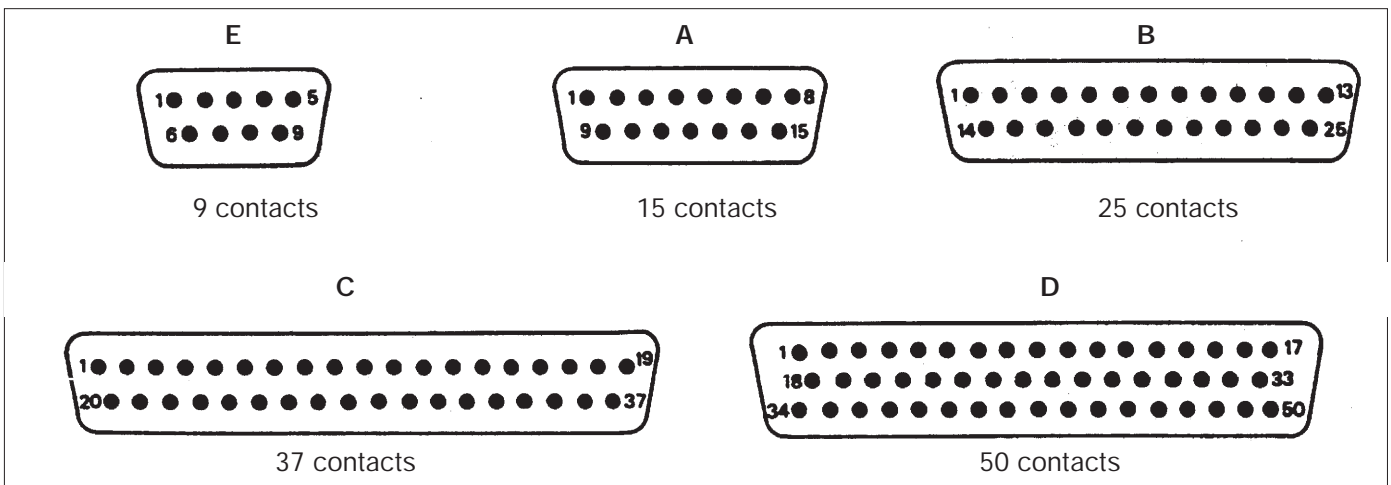
Contact type	Part numbers				Contacts dimensions						Cable			
	Soldered screen	NFC 93569 KMX4	Crimped screen	NFC93569 KMX4	A	B	C	D	E	F	MILC 17E	NFC 93550	Impedance	
Straight	male	DM53740-5000NC	KMX4M11D02	DM53740NC	1.00 0.039	1.75 0.069	2.32 0.091	3.20 0.126	23.60	18.64	15.30	RG 178BU	KX21A	50Ω ⁺²
	male	DM53740-5008NC	-	-					0.929					
	female	DM53742-5000NC	KMX4F11D02	DM53742NC					21.80					
	female	DM53742-5006NC	-	-					0.858					
Angled	male	DM53741-5000NC	KM4M11C02	DM53741-NC	1.70 0.067	2.46 0.097	3.00 0.118	3.84 0.151	18.64	15.30	15.30	RG 316U	KX22A	50Ω ⁺²
	female	DM53743-5000NC	KMX4F11C02	DM53743-2NC					0.734					
Straight	male	DM53740-5001NC	KMX4M11D01	DM53740-1NC	1.70 0.067	2.46 0.097	3.00 0.118	3.84 0.151	23.60	18.64	15.30	RG 316U	KX22A	50Ω ⁺²
	female	DM53742-5001NC	KMX4F11D01	DM53742-1NC					0.929					
Angled	male	DM53741-5001NC	KMX4M11C01	DM53741-1NC	1.70 0.067	2.46 0.097	3.00 0.118	3.84 0.151	18.64	15.30	12.50	RG 316U	KX22A	50Ω ⁺²
	female	DM53743-5001NC	KMX4F11C01	DM53743-3NC					0.734					

NOTA : Specific coaxial contacts were developed for cable RG180BU and RG58CU. Please consult us.

Standard connector layout

Layouts (male insulator front view)

Contacts are individually numbered on both sides of the insulator.



Accessories

A large range of accessories is available :

Hoods, cable clamps, screw locks, slide locks, lever locks, metal caps...

Please consult us.