

## REFERENCE SPECIFICATIONS

-NFC 93425 (in compliance with HE 501)

## PHYSICAL CHARACTERISTICS

-INSULATOR MATERIAL: THERMOPLASTIC UL94V0

-CONTACT MATERIAL: BRASS,  
GOLD OVER NICKEL

-ACCESSORIES: STEEL FOR METAL BRACKETS,  
cadmium plated yellow passivation  
THERMOPLASTIC UL94V0 FOR PLASTIC BRACKETS

BRASS FOR OTHERS ACCESSORIES,  
cadmium plated yellow passivation

-SHELLS: STEEL,  
cadmium plated yellow passivation

## ELECTRICAL CHARACTERISTICS

-NOMINAL CURRENT: 7.5A

-CONTACT RESISTANCE: <=7.3 m Ohms

-CONTACT/CONTACT : >=1000 V

-CONTACT/GROUND : >=1200 V

-INSULATION RESISTANCE: >=5000 MOhms

## ENVIRONMENTAL CHARACTERISTICS

- CLIMATIC CATEGORY: 55/125/56

TEMPERATURE RANGE -55°C TO +125°C

DAMP HEAT STEADY STATE 56 DAYS

SALT SPRAY 48 HOURS

## MECHANICAL CHARACTERISTICS

RETENTION AGAINST TORQUE: -Threaded insert:0.7 N.m min

-Female screw:0.5 N.m min

Series

# DBML25P500M

Shell size: **E A B C D**  
(see sheet 3)

Front accessory definition  
(see sheet 2)

**Blank** :without accessory  
**L** :threaded insert M3  
**O** :threaded insert UNC 4-40  
**V** :female screw UNC 4-40

Layout of contacts (see sheet 3)

**9,15,25,37,50**

Contacts

**P** :Pin

Termination type

**5** Right angle/Europe standard

Plating

**00** Right angle 500 matings/unmatings

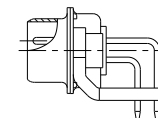
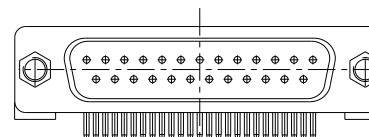
**43** Right angle 500 matings/unmatings  
for harsh environment

PCB accessories definition(see sheet 2)

**Blank** :Plastic brackets

**C** :Without brackets

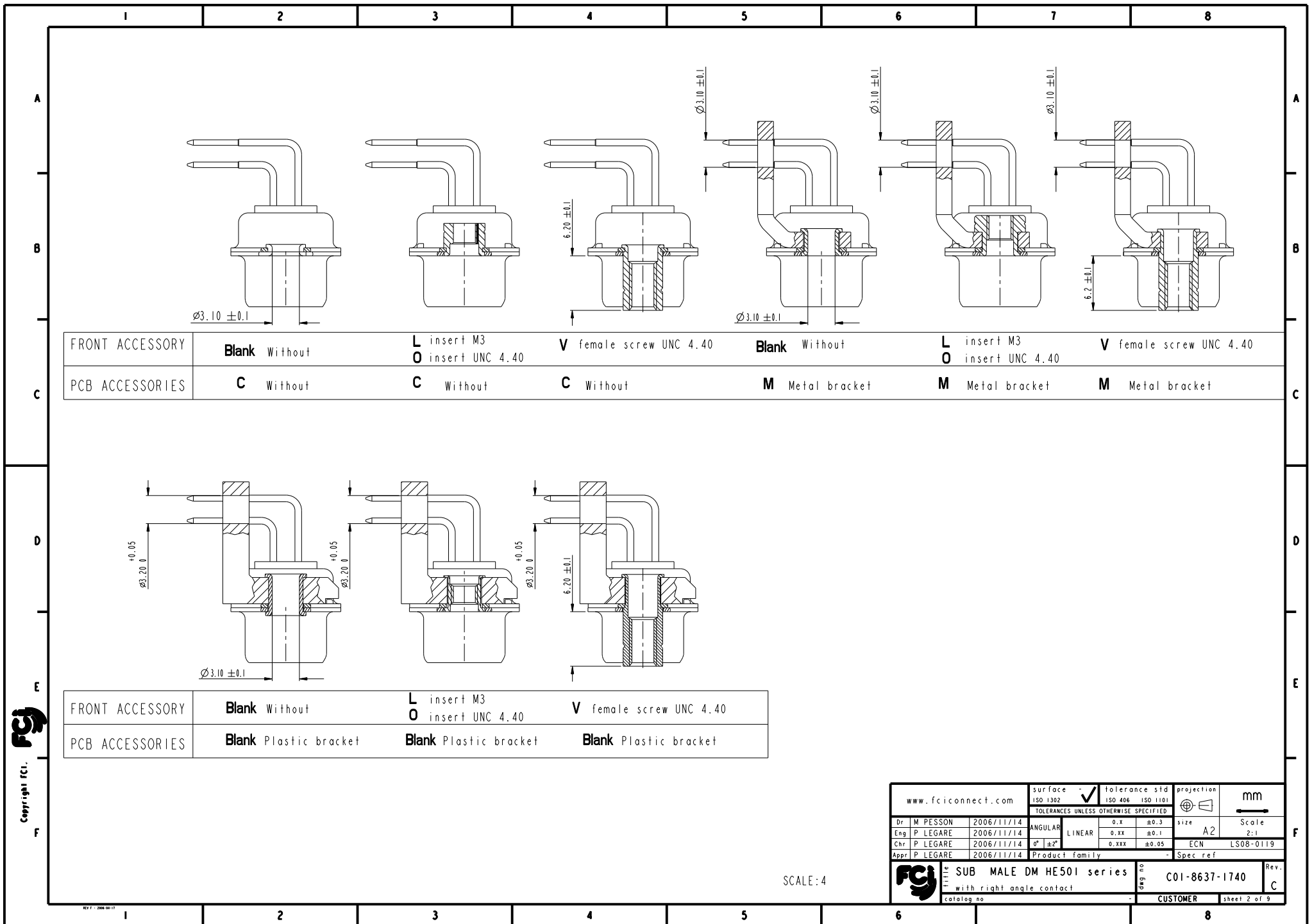
**M** :Metal brackets



25 WAY for Example

rev	ech no	dr	date
A	3506-0174	MPE	2006/11/14
B	3507-0065	MPE	2007/03/02
C	3508-0119	MPE	2008/04/29
-	-	-	-
-	-	-	-
-	-	-	-

www.fciconnect.com		surface	-	tolerance std	ISO 1302	ISO 406	ISO 1101	projection	mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED							
Dr	M PESSON	2006/11/14	ANGULAR	LINEAR	0.X	±0.3	size	A2	Scale
Eng	P LEGARE	2006/11/14	0° ±2°		0.XX	±0.1	ECN	LS08-0119	2:1
Chr	P LEGARE	2006/11/14			0.XXX	±0.05			
Appr	P LEGARE	2006/11/14			Product family		Spec ref		
				SUB MALE DM HE501 series		deg no		C01-8637-1740	
				with right angle contact				Rev.	
				catalog no				C	
						CUSTOMER		sheet 1 of 9	



PART NUMBER	FRONT ACCESSORY	PCB ACCESSORY
D*MxxP500C	without	without
D*MLxxP500C	insert M3	without
D*MOxxP500C	insert UNC 4.40	without
D*MVxxP500C	female screw UNC 4.40	without
D*MxxP500M	without	Metal bracket
D*MLxxP500M	insert M3	Metal bracket
D*MOxxP500M	insert UNC 4.40	Metal bracket
D*MVxxP500M	female screw UNC 4.40	Metal bracket
D*MxxP500	without	Plastic bracket
D*MLxxP500	insert M3	Plastic bracket
D*MOxxP500	insert UNC 4.40	Plastic bracket
D*MVxxP500	female screw UNC 4.40	Plastic bracket

shell size	Contact number
X	XX
E	09
A	15
B	25
C	37
D	50

PART NUMBER	FRONT ACCESSORY	PCB ACCESSORY
D*MxxP543C	without	without
D*MLxxP543C	insert M3	without
D*MOxxP543C	insert UNC 4.40	without
D*MVxxP543C	female screw UNC 4.40	without
D*MxxP543M	without	Metal bracket
D*MLxxP543M	insert M3	Metal bracket
D*MOxxP543M	insert UNC 4.40	Metal bracket
D*MVxxP543M	female screw UNC 4.40	Metal bracket
D*MxxP543	without	Plastic bracket
D*MLxxP543	insert M3	Plastic bracket
D*MOxxP543	insert UNC 4.40	Plastic bracket
D*MVxxP543	female screw UNC 4.40	Plastic bracket

# CROSS REFERENCES HE501 and FCI

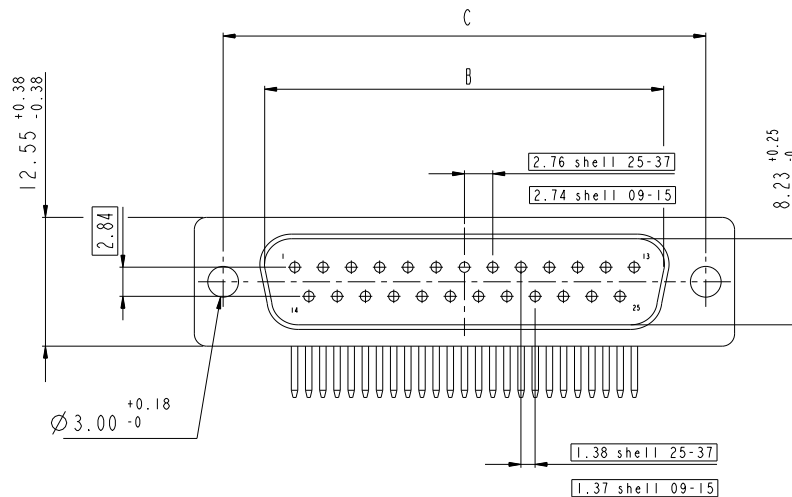
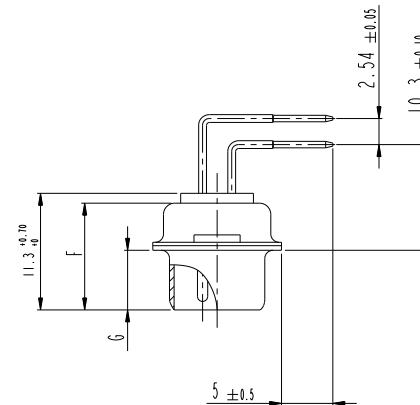
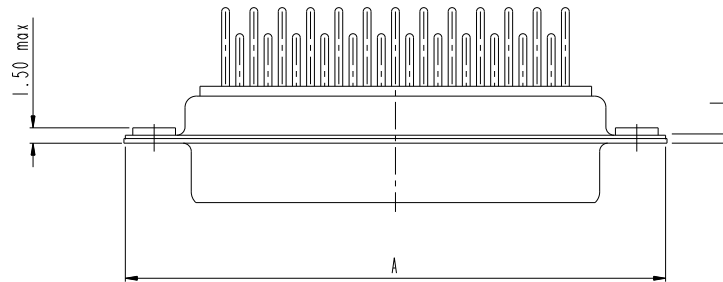
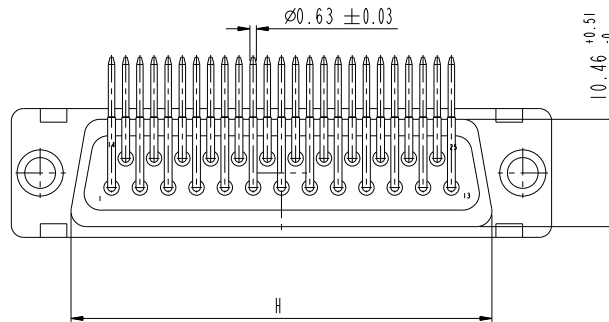
HE501 P/N	FCI P/N	FRONT ACCESSORY	PCB ACCESSORY
HE501PxxVP6	D*MxxP500	without	Plastic bracket
HE501MxxVP6	D*MxxP500M	without	Metal bracket

www.fciconnect.com			surface - <input checked="" type="checkbox"/>	tolerance std	projection	mm
			ISO 1302	ISO 406 ISO 1101		
			TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr	M PESSON	2006/11/14	ANGULAR	0.XX ±0.3	size	Scale
Eng	P LEGARE	2006/11/14	LINEAR	0.XX ±0.1	A2	2:1
Chr	P LEGARE	2006/11/14	0° ±2°	0.XXX ±0.05	ECN	LS08-0119
Appr	P LEGARE	2006/11/14	Product family		Spec ref	
			SUB MALE DM HE501 series		deg no	Rev.
			with right angle contact		C01-8637-1740	C
catalog no			CUSTOMER		sheet 3 of 9	

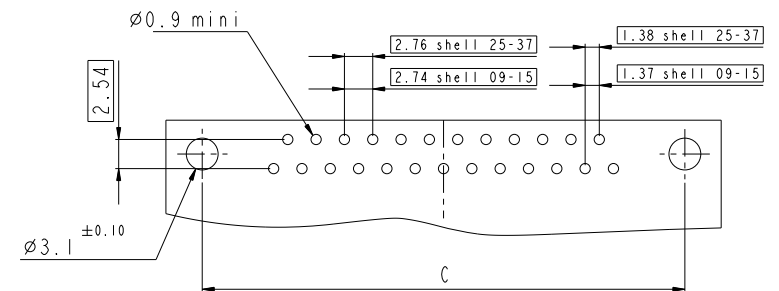
# DIMENSION FOR SHELL E,A,B,C WITHOUT BRACKET

Dimensions are in millimeters

Shell size	Number of contacts	A $\begin{smallmatrix} +0.76 \\ -0 \end{smallmatrix}$	B $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	C $\pm 0.12$	F $\begin{smallmatrix} +0.57 \\ -0 \end{smallmatrix}$	G $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	H $\begin{smallmatrix} +0.51 \\ -0 \end{smallmatrix}$	L $\begin{smallmatrix} +0.22 \\ -0 \end{smallmatrix}$
E	09	30.43	16.79	24.99	10.47	5.9 $\begin{smallmatrix} +0.15 \\ -0 \end{smallmatrix}$	19.02	0.80
A	15	38.76	25.12	33.32	10.47	5.9 $\begin{smallmatrix} +0.15 \\ -0 \end{smallmatrix}$	27.25	0.80
B	25	52.65	38.84	47.04	10.43	5.7 $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	41.02	0.80
C	37	68.94	55.30	63.50	10.56	5.7 $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	57.45	0.90

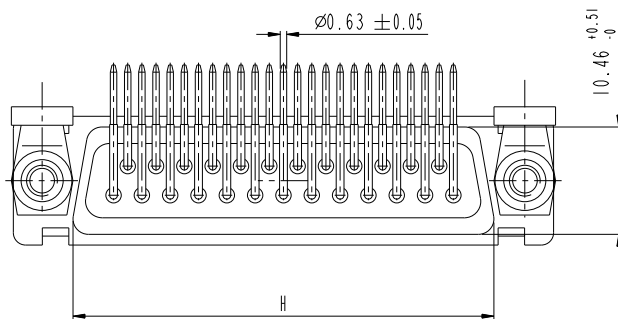


## LAYOUT DIMENSIONS



SCALE: 3

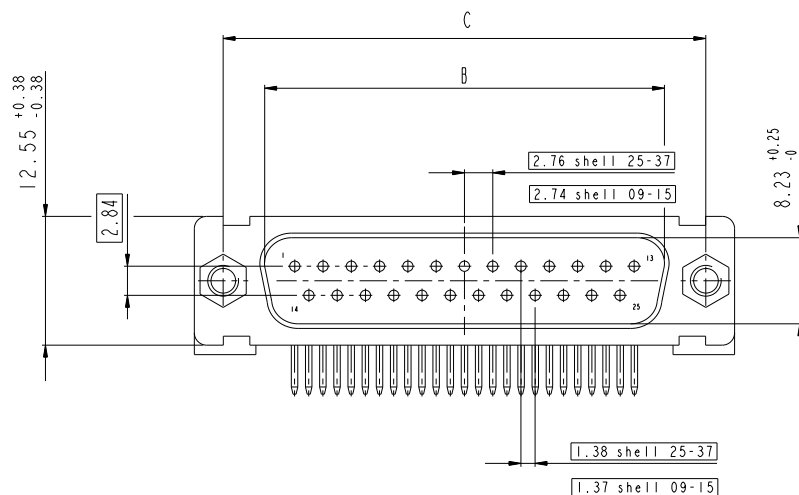
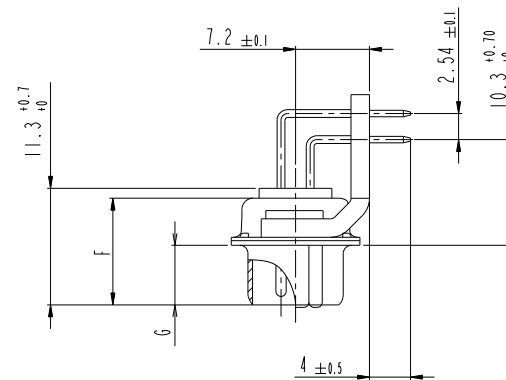
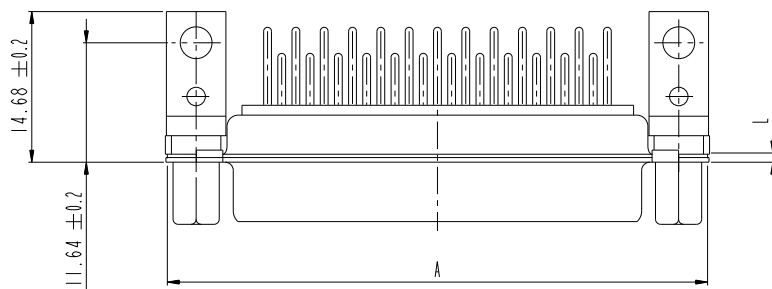
www.fciconnect.com				surface	ISO 1302	tolerance std	ISO 406	ISO 1101	projection	mm
				TOLERANCES UNLESS OTHERWISE SPECIFIED						
Dr	M PESSON	2006/11/14	ANGULAR	0.X	±0.3	size	A2	Scale	2:1	
Eng	P LEGARE	2006/11/14	LINEAR	0.XX	±0.1	ECN	LS08-0119			
Chr	P LEGARE	2006/11/14	0° ± 2°	0.XXX	±0.05					
Appr	P LEGARE	2006/11/14	Product family	Spec ref						
SUB MALE DM HE501 series				C01-8637-1740				Rev.	C	
with right angle contact				CUSTOMER				sheet 4 of 9		



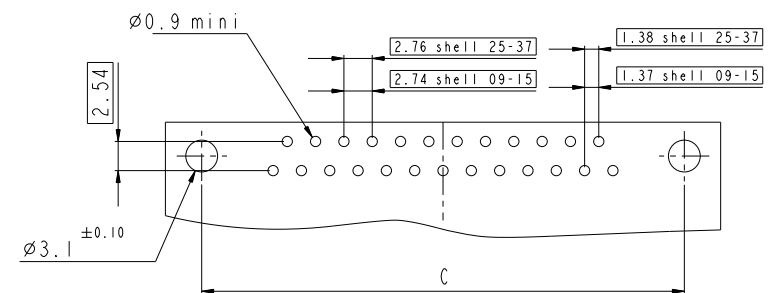
# DIMENSION FOR SHELL E,A,B,C WITH METAL BRACKET

Dimensions are in millimeters




Shell size	Number of contacts	A <sup>+0.76</sup> <sub>-0</sub>	B <sup>+0.25</sup> <sub>-0</sub>	C ±0.12	F <sup>+0.57</sup> <sub>-0</sub>	G <sup>+0.25</sup> <sub>-0</sub>	H <sup>+0.51</sup> <sub>-0</sub>	L <sup>+0.22</sup> <sub>-0</sub>
E	09	30.43	16.79	24.99	10.47	5.9 <sup>+0.15</sup> <sub>-0</sub>	19.02	0.80
A	15	38.76	25.12	33.32	10.47	5.9 <sup>+0.15</sup> <sub>-0</sub>	27.25	0.80
B	25	52.65	38.84	47.04	10.43	5.7 <sup>+0.25</sup> <sub>-0</sub>	41.02	0.80
C	37	68.94	55.30	63.50	10.56	5.7 <sup>+0.25</sup> <sub>-0</sub>	57.45	0.90



## LAYOUT DIMENSIONS

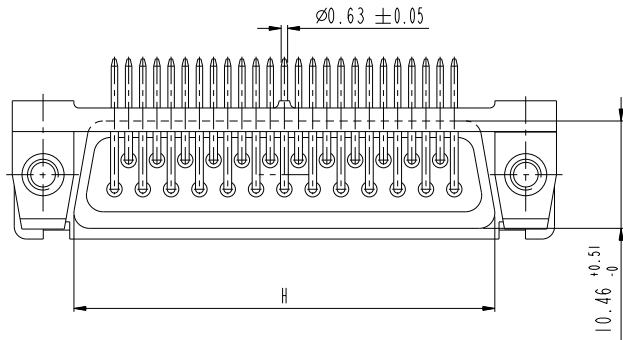


SCALE: 3

www.fciconnect.com			surface - <input checked="" type="checkbox"/> tolerance std ISO 1302 ISO 406 ISO 1101		projection 		mm 	
TOLERANCES UNLESS OTHERWISE SPECIFIED								
Dr	M PESSON	2006/11/14	ANGULAR	LINEAR	0.X	±0.3	size A2	Scale 2:1
Eng	P LEGARE	2006/11/14			0.XX	±0.1		
Chr	P LEGARE	2006/11/14			0° ±2°	0.XXX		
Appr	P LEGARE	2006/11/14	Product family			ECN LS08-0119		
						- Spec ref		
		Title SUB MALE DM HE501 series				deg no C01-8637-1740		Rev. C
		with right angle contact						
		catalog no -				CUSTOMER		sheet 5 of 9

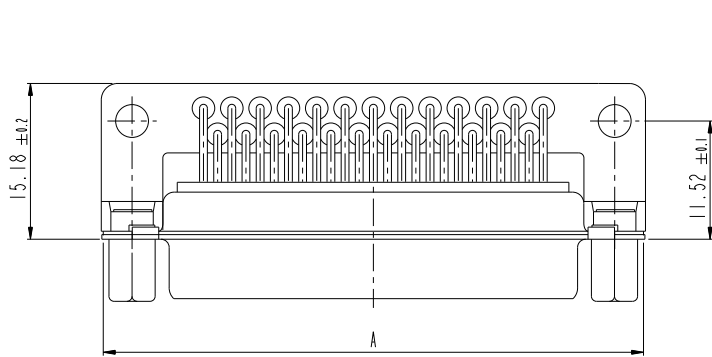
I 2 3 4 5 6 7 8

A

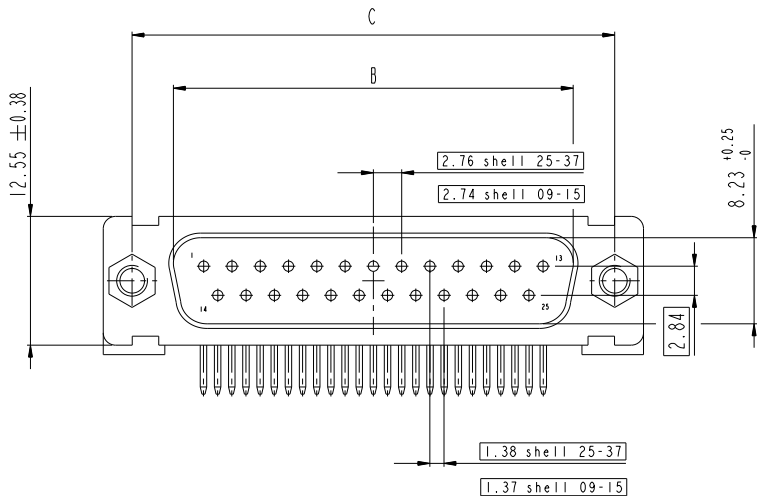


B

C



D



F

### DIMENSION FOR SHELL E,A,B,C WITH PLASTIC BRACKET

Dimensions are in millimeters

Shell size	Number of contacts	A $\begin{smallmatrix} +0.76 \\ -0 \end{smallmatrix}$	B $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	C $\pm 0.12$	F $\begin{smallmatrix} +0.57 \\ -0 \end{smallmatrix}$	G $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	H $\begin{smallmatrix} +0.51 \\ -0 \end{smallmatrix}$	L $\begin{smallmatrix} +0.22 \\ -0 \end{smallmatrix}$
E	09	30.43	16.79	24.99	10.47	5.9 $\begin{smallmatrix} +0.15 \\ -0 \end{smallmatrix}$	19.02	0.80
A	15	38.76	25.12	33.32	10.47	5.9 $\begin{smallmatrix} +0.15 \\ -0 \end{smallmatrix}$	27.25	0.80
B	25	52.65	38.84	47.04	10.43	5.7 $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	41.02	0.80
C	37	68.94	55.30	63.50	10.56	5.7 $\begin{smallmatrix} +0.25 \\ -0 \end{smallmatrix}$	57.45	0.90

A

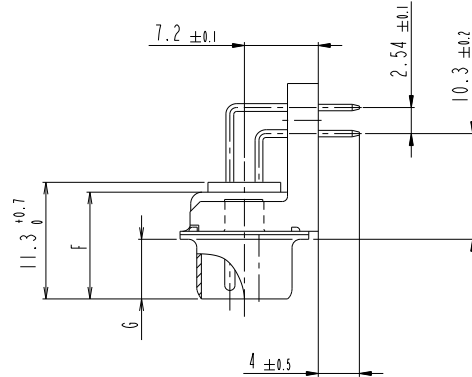
B

C

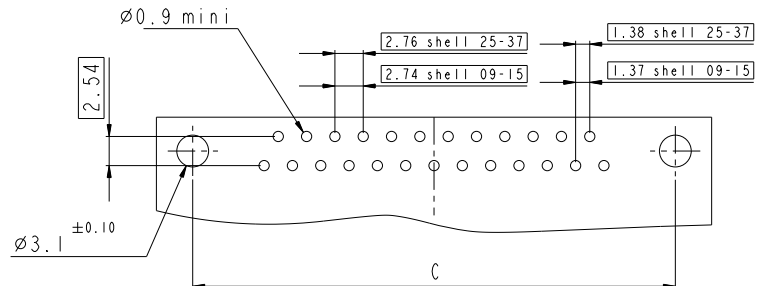
D




E

F



### LAYOUT DIMENSIONS

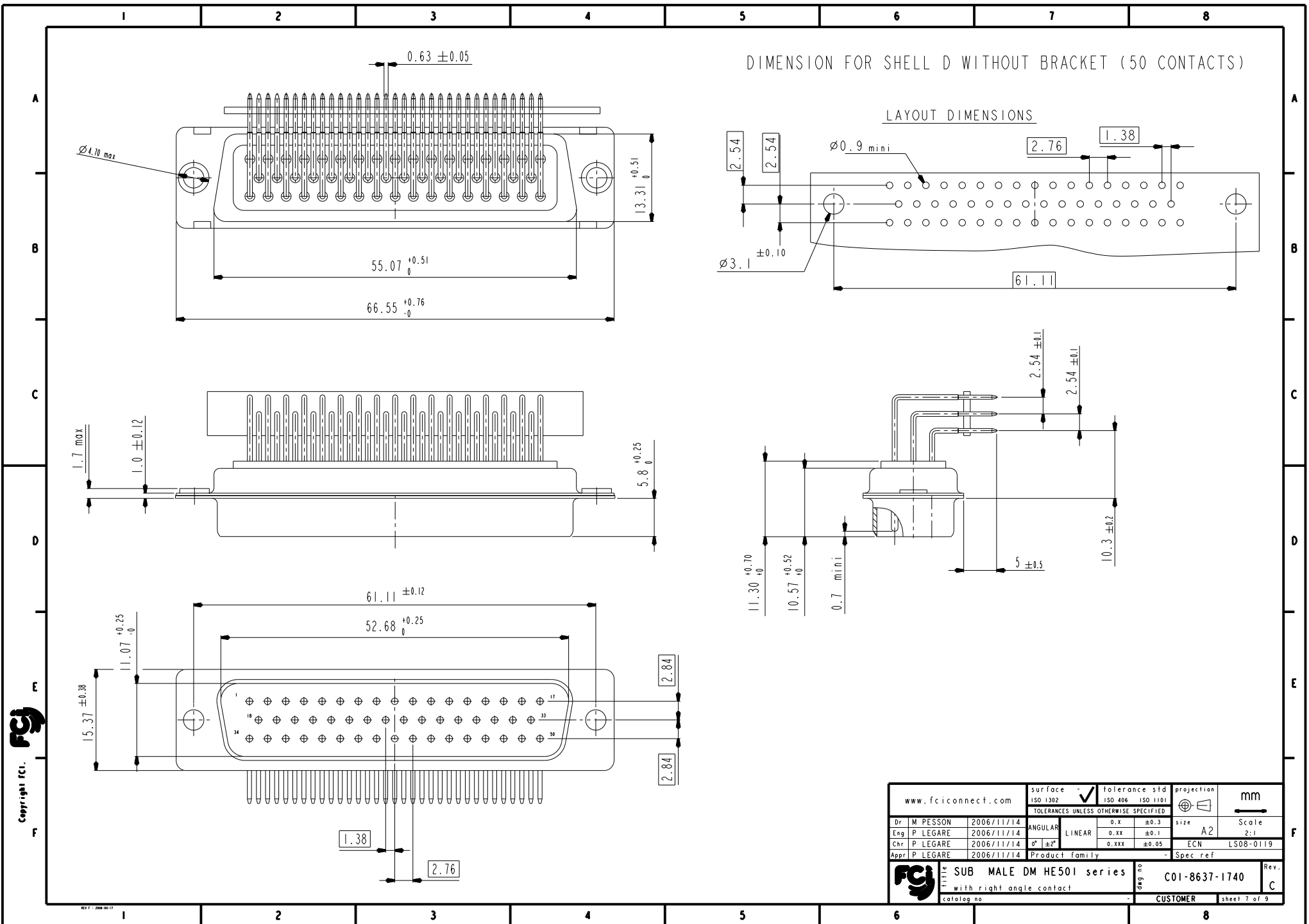


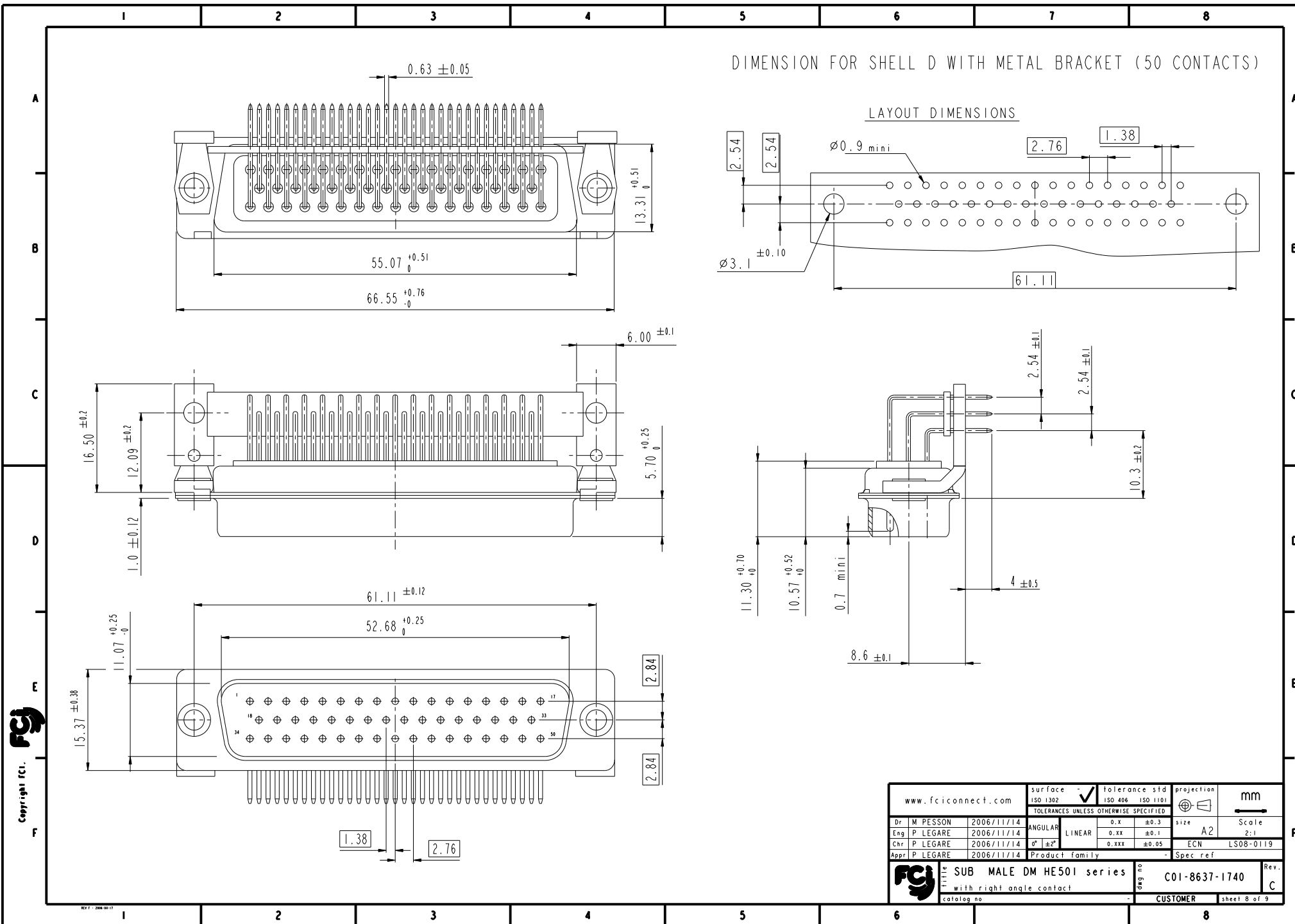
www.fciconnect.com			surface <input checked="" type="checkbox"/> ISO 1302		tolerance std <input checked="" type="checkbox"/> ISO 406 ISO 1101		projection 		mm 	
TOLERANCES UNLESS OTHERWISE SPECIFIED										
Dr	M PESSON	2006/11/14	ANGULAR	LINEAR	0.X	±0.3	size A2	Scale 2:1	ECN	LS08-0119
Eng	P LEGARE	2006/11/14			0.XX	±0.1				
Chr	P LEGARE	2006/11/14	0° ±2°		0.XXX	±0.05				
Appr	P LEGARE	2006/11/14	Product family				- Spec ref			
			SUB MALE DM HE501 series				C01-8637-1740		Rev. C	
			with right angle contact							
catalog no			-				CUSTOMER		sheet 6 of 9	

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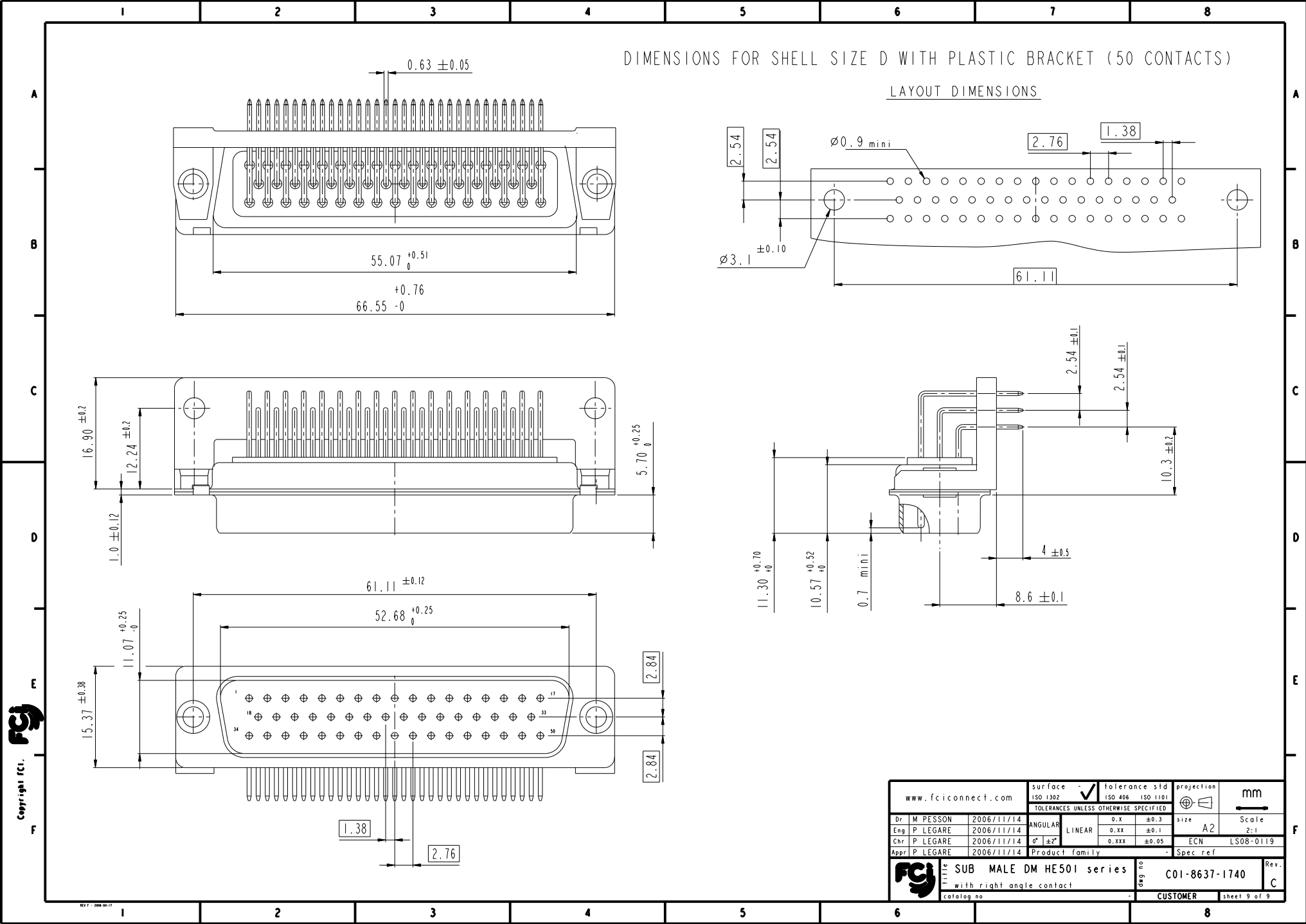
REV 7 - 2006-09-17




I 2 3 4 5 6 7 8









www.fciconnect.com			surface - <input checked="" type="checkbox"/> tolerance std ISO 1302 ISO 406 ISO 1101			projection 		mm 	
TOLERANCES UNLESS OTHERWISE SPECIFIED									
Dr	M PESSON	2006/11/14	ANGULAR	LINEAR	0.X	±0.3	size	A2	Scale
Eng	P LEGARE	2006/11/14			0.XX	±0.1			2:1
Chr	P LEGARE	2006/11/14	0° ±2°		0.XXX	±0.05	ECN	LS08-0119	
Appr	P LEGARE	2006/11/14	Product family				- Spec ref		
			SUB MALE DM HE501 series				C01-8637-1740		Rev.
			with right angle contact						C
catalog no			-				CUSTOMER		sheet 9 of 9