

REFERENCE SPECIFICATIONS

-NFC 93425 (in compliance with HE 501)

PHYSICAL CHARACTERISTICS

- INSULATOR MATERIAL: THERMOPLASTIC UL94V0
- CONTACT MATERIAL: BRASS
- ACCESSORIES: STEEL FOR METAL BRACKETS  
THERMOPLASTIC UL94V0 FOR PLASTIC BRACKETS  
BRASS FOR OTHERS ACCESSORIES
- SHELLS: STEEL

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

NOTE RoHS INFORMATION

- The "LF" products meet european union Directives and other country regulations as described in GS-22-008.
- The housing will withstand exposure to 260°C peak temperature for 3.5 seconds in a wave solder application with a 1.6mm minimum thick circuit board. See application notes/procedures if they are available.
- Termination plating spec:
- Signal contacts: Gold over Nickel
- Active area plating spec:
- Signal contacts: Gold over Nickel
- Shell plating :Zn Cr3, white or transparent color
- Accessories: Zn Cr3, white or transparent color
- Packaging spec: See GS-14-920

# DBML25P500MLF

Series

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

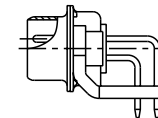
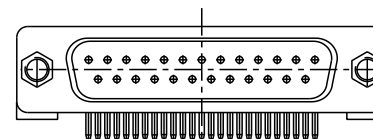
Termination type  
5 Right angle/Europe standard

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

See note RoHS

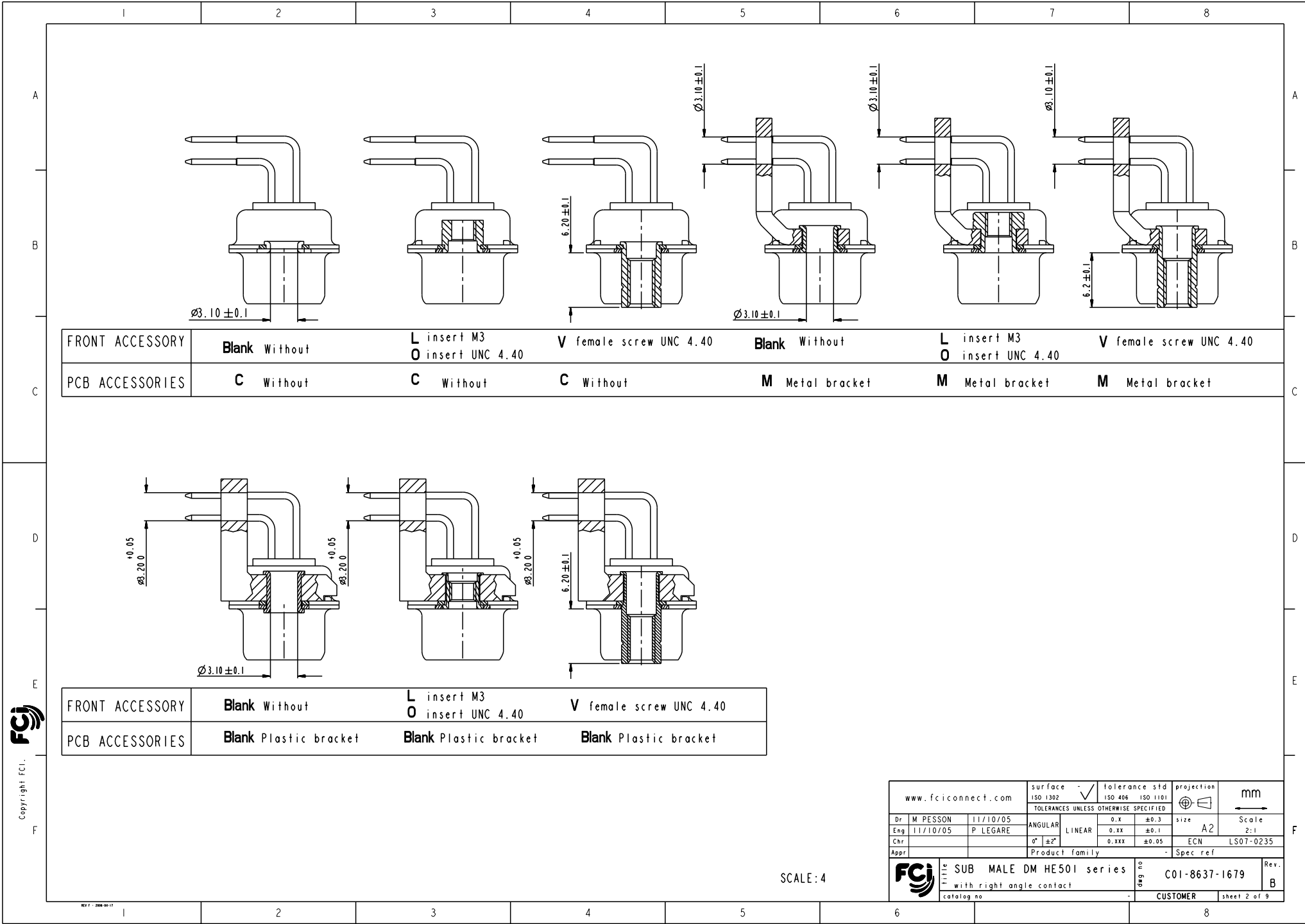


25 WAY for Example

www.fciconnect.com		surface	tolerance std	projection	mm
		ISO 1302	ISO 406 ISO 1101	mm	
		TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr	M PESSON	11/10/05	ANGULAR	LINEAR	size A2 Scale 2:1
Eng	11/10/05	P LEGARE	0.xx	±0.3	
Chr			0.xxx	±0.1	ECN LS07-0235
Appr			0.xxx	±0.05	Spec ref
Product family					
FCJ SUB MALE DM HE501 series		ang no	C01-8637-1679		
with right angle contact		Rev.	B		
catalog no		CUSTOMER		sheet 1 of 9	



Copyright FCJ.



FRONT ACCESSORY	<b>Blank</b> Without	<b>L</b> insert M3 <b>O</b> insert UNC 4.40	<b>V</b> female screw UNC 4.40	<b>Blank</b> Without	<b>L</b> insert M3 <b>O</b> insert UNC 4.40	<b>V</b> female screw UNC 4.40
PCB ACCESSORIES	<b>C</b> Without	<b>C</b> Without	<b>C</b> Without	<b>M</b> Metal bracket	<b>M</b> Metal bracket	<b>M</b> Metal bracket

FRONT ACCESSORY	<b>Blank</b> Without	<b>L</b> insert M3 <b>O</b> insert UNC 4.40	<b>V</b> female screw UNC 4.40
PCB ACCESSORIES	<b>Blank</b> Plastic bracket	<b>Blank</b> Plastic bracket	<b>Blank</b> Plastic bracket

www.fciconnect.com		surface -	tolerance std	projection	mm
		ISO 1302	ISO 406 ISO 1101		
		TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr	M PESSON	11/10/05	ANGULAR	0.X ±0.3	size A2 Scale 2:1
Eng			LINEAR	0.XX ±0.1	
Chr			0° ±2°	0.XXX ±0.05	ECN LS07-0235
Appr			Product family	-	Spec ref
		SUB MALE DM HE501 series		ang no	Rev.
		with right angle contact		C01-8637-1679	B
		catalog no	CUSTOMER		sheet 2 of 9

SCALE: 4

Copyright FCJ.

PART NUMBER	FRONT ACCESSORY	PCB ACCESSORY
D*MxxP500CLF	without	without
D*MLxxP500CLF	insert M3	without
D*MOxxP500CLF	insert UNC 4.40	without
D*MVxxP500CLF	female screw UNC 4.40	without
D*MxxP500MLF	without	Metal bracket
D*MLxxP500MLF	insert M3	Metal bracket
D*MOxxP500MLF	insert UNC 4.40	Metal bracket
D*MVxxP500MLF	female screw UNC 4.40	Metal bracket
D*MxxP500LF	without	Plastic bracket
D*MLxxP500LF	insert M3	Plastic bracket
D*MOxxP500LF	insert UNC 4.40	Plastic bracket
D*MVxxP500LF	female screw UNC 4.40	Plastic bracket

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

PART NUMBER	FRONT ACCESSORY	PCB ACCESSORY
D*MxxP543CLF	without	without
D*MLxxP543CLF	insert M3	without
D*MOxxP543CLF	insert UNC 4.40	without
D*MVxxP543CLF	female screw UNC 4.40	without
D*MxxP543MLF	without	Metal bracket
D*MLxxP543MLF	insert M3	Metal bracket
D*MOxxP543MLF	insert UNC 4.40	Metal bracket
D*MVxxP543MLF	female screw UNC 4.40	Metal bracket
D*MxxP543LF	without	Plastic bracket
D*MLxxP543LF	insert M3	Plastic bracket
D*MOxxP543LF	insert UNC 4.40	Plastic bracket
D*MVxxP543LF	female screw UNC 4.40	Plastic bracket

CROSS REFERENCES HE501 and FCI

HE501 P/N	FCI P/N	FRONT ACCESSORY	PCB ACCESSORY
HE501PxxVP6	D*MxxP500LF	without	Plastic bracket
HE501MxxVP6	D*MxxP500MLF	without	Metal bracket



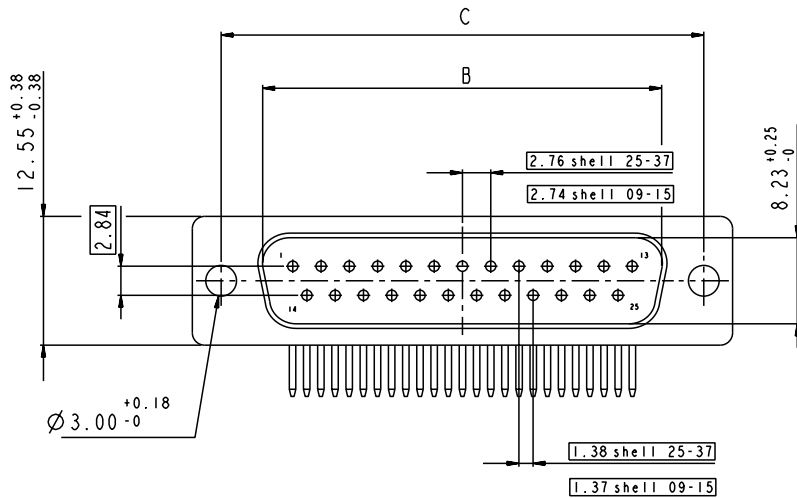
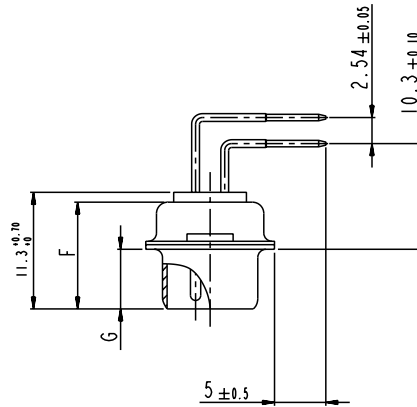
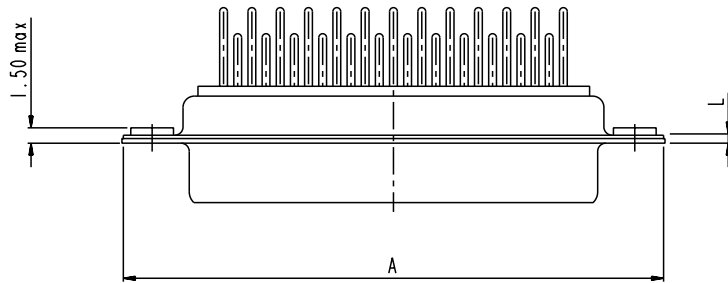
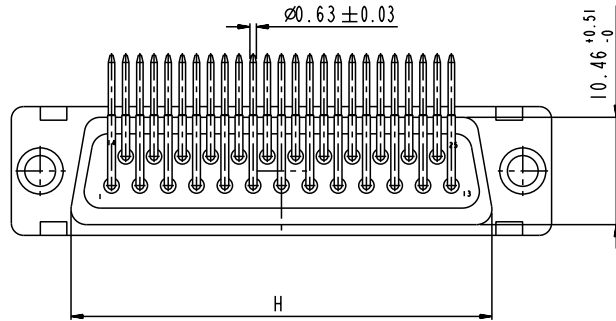
Copyright FCI.

www.fciconnect.com		surface ISO 1302	tolerance std ISO 406 ISO 1101	projection mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED		
Dr M PESSON	11/10/05	ANGULAR	0.X ±0.3	size A2 Scale 2:1
Eng 11/10/05	P LEGARE	LINEAR	0.XX ±0.1	
Chr		0° ±2°	0.XXX ±0.05	ECN LS07-0235
Appr		Product family		Spec ref
FCI		SUB MALE DM HE501 series with right angle contact		Rev. B
catalog no		C01-8637-1679		sheet 3 of 9
		CUSTOMER		

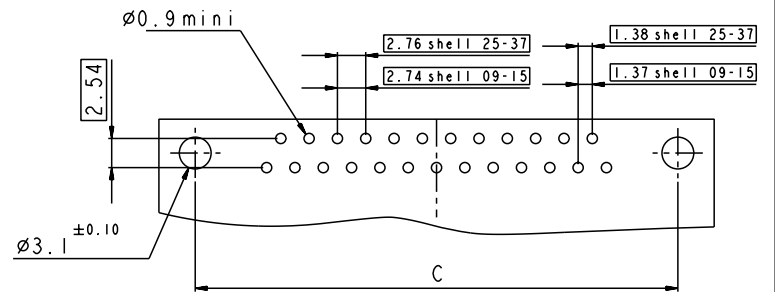
DIMENSION FOR SHELL E,A,B,C WITHOUT BRACKET

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



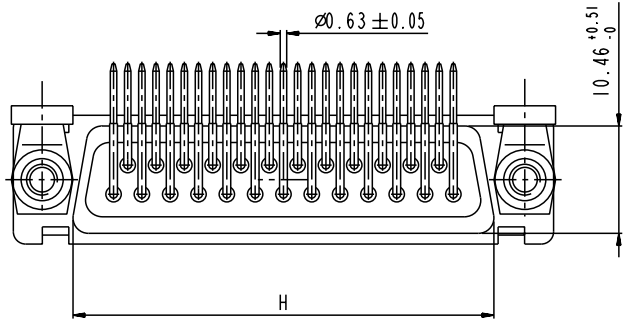
LAYOUT DIMENSIONS



SCALE: 3

www.fciconnect.com		surface	tolerance std	projection	mm
		ISO 1302	ISO 406 ISO 1101		
		TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr M PESSON	11/10/05	ANGULAR	0.X ±0.3	size A2	Scale 2:1
Eng 11/10/05	P LEGARE	LINEAR	0.XX ±0.1	ECN	LS07-0235
Chr		0° ±2°	0.XXX ±0.05	Spec ref	
Appr		Product family			
		SUB MALE DM HE501 series		ang no C01-8637-1679	Rev. B
		with right angle contact		CUSTOMER	sheet 4 of 9
		catalog no			

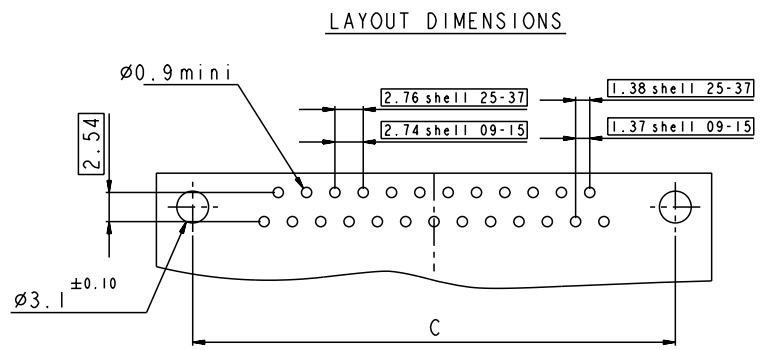
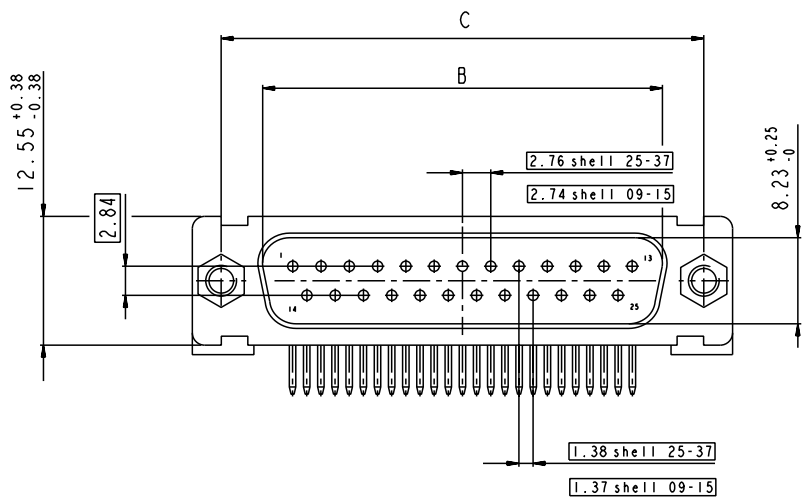
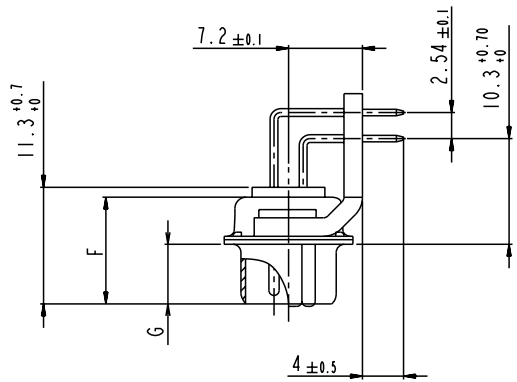
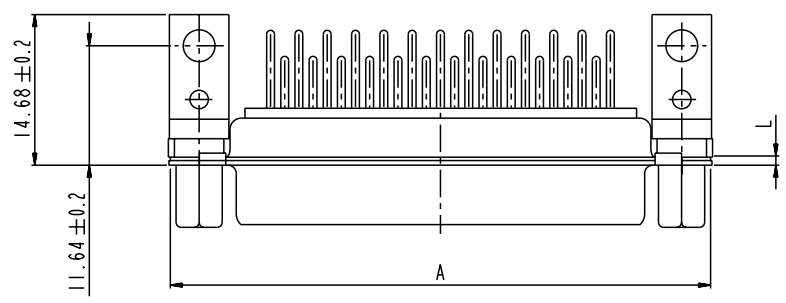
Copyright FCI. FCI



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

Dimensions are in millimeters

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



### LAYOUT DIMENSIONS

SCALE: 3

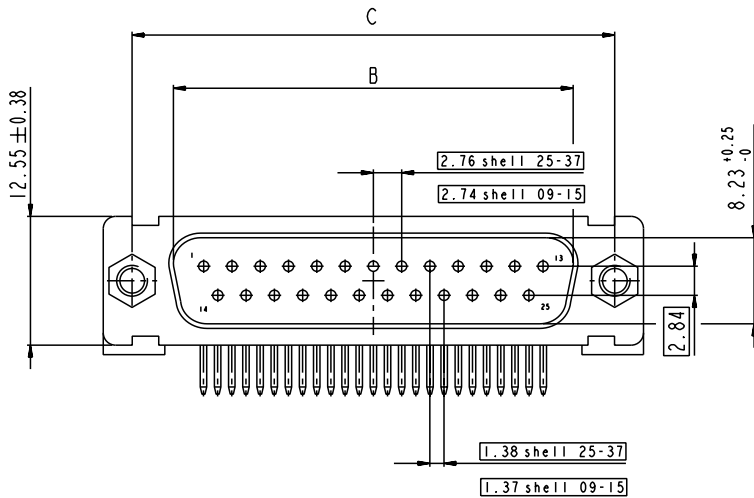
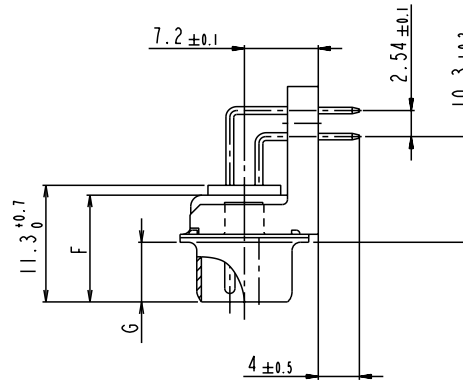
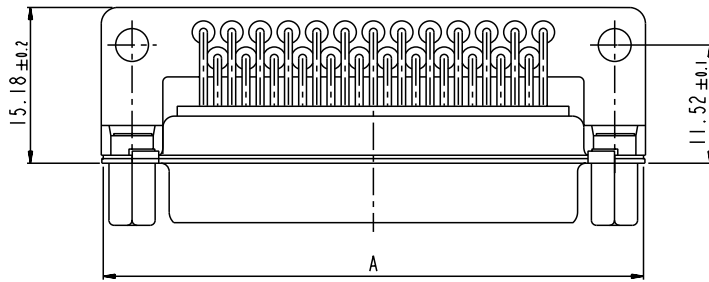
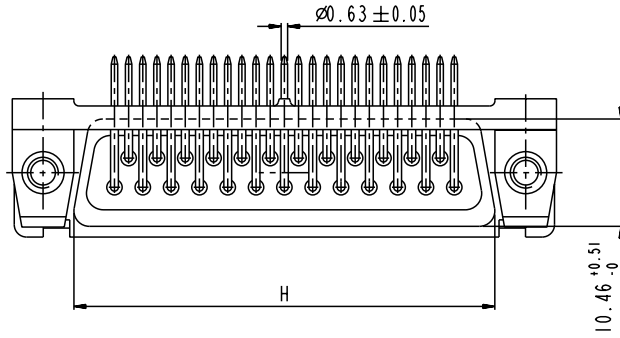
www.fciconnect.com		surface ISO 1302	tolerance std ISO 406 ISO 1101	projection mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED		
Dr M PESSON	11/10/05	ANGULAR	0.X $\pm 0.3$	size A2 Scale 2:1
Eng 11/10/05	P LEGARE	LINEAR	0.XX $\pm 0.1$	ECN LS07-0235
Chr		$\varnothing \pm 2$	0.XXX $\pm 0.05$	Product family - Spec ref
Appr		Product family - Spec ref		
FCI SUB MALE DM HE501 series		cat no	C01-8637-1679	
with right angle contact		CUSTOMER sheet 5 of 9		
catalog no				

Copyright FCI

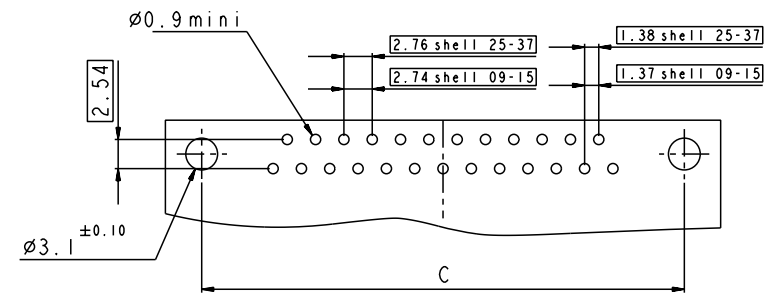
### DIMENSION FOR SHELL E,A,B,C WITH PLASTIC BRACKET

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



### LAYOUT DIMENSIONS



www.fciconnect.com		surface	ISO 1302	tolerance std	ISO 406	ISO 1101	projection	mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED						
Dr	M PESSON	11/10/05	ANGULAR	0.X	$\pm 0.3$	size	A2	Scale
Eng	11/10/05	P LEGARE	LINEAR	0.XX	$\pm 0.1$			2:1
Chr			$\varnothing^{\circ} \pm 2^{\circ}$	0.XXX	$\pm 0.05$	ECN	LS07-0235	
Appr			Product family			Spec ref		
		SUB MALE DM HE501 series			ang no	C01-8637-1679		Rev.
		with right angle contact						B
		catalog no			CUSTOMER		sheet 6 of 9	

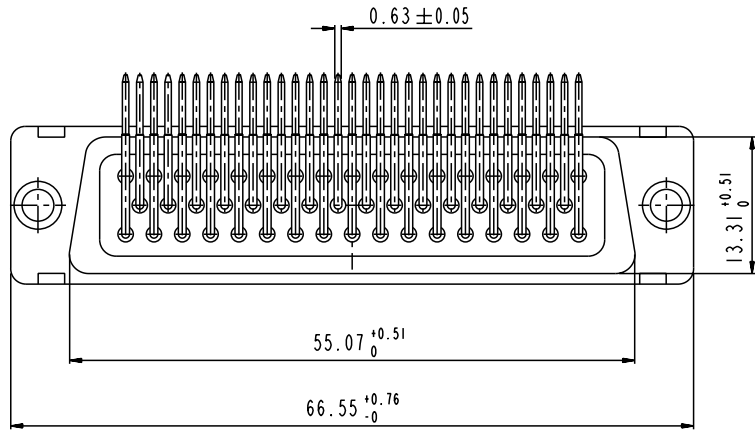
Copyright FCJ



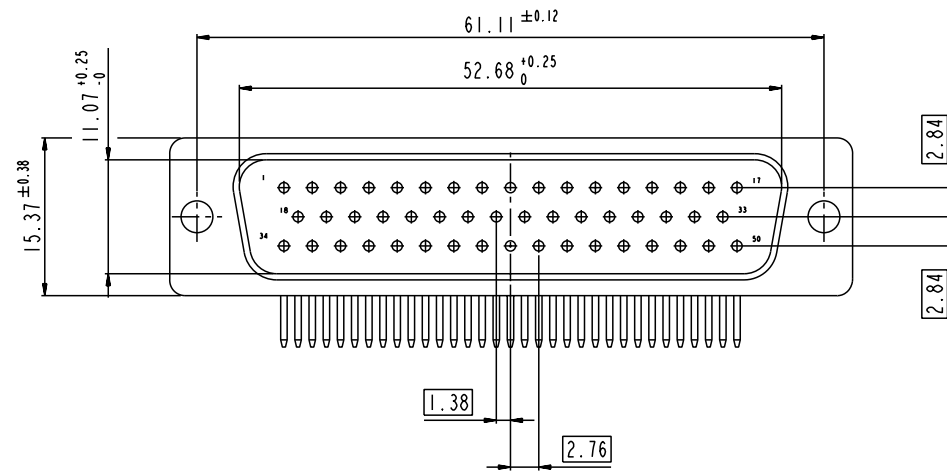
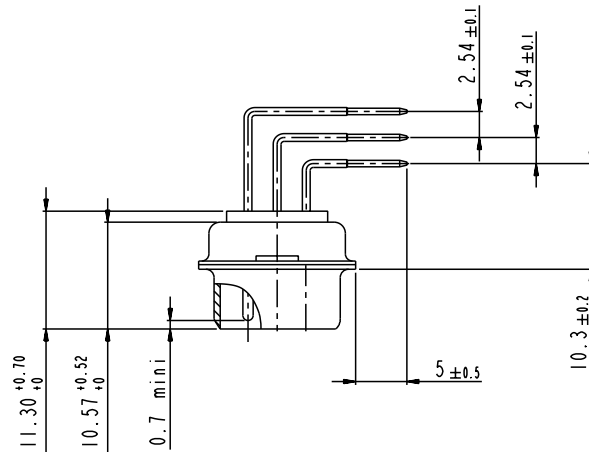
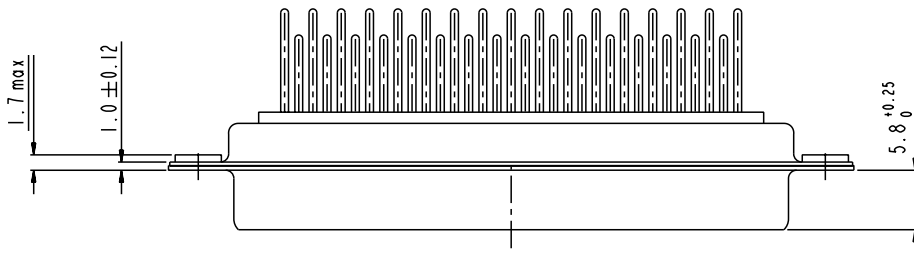
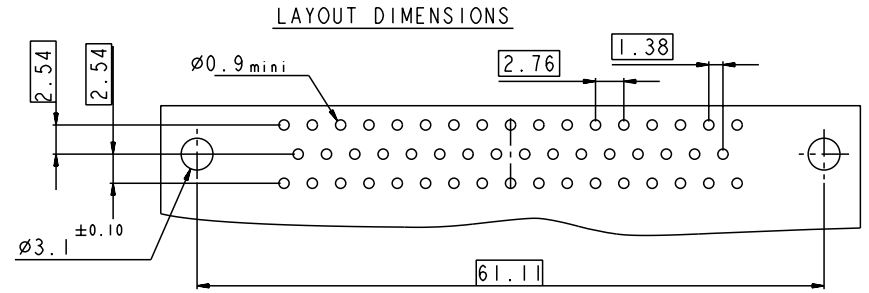
Copyright FCJ.

A  
B  
C  
D  
E  
F

1 2 3 4 5 6 7 8



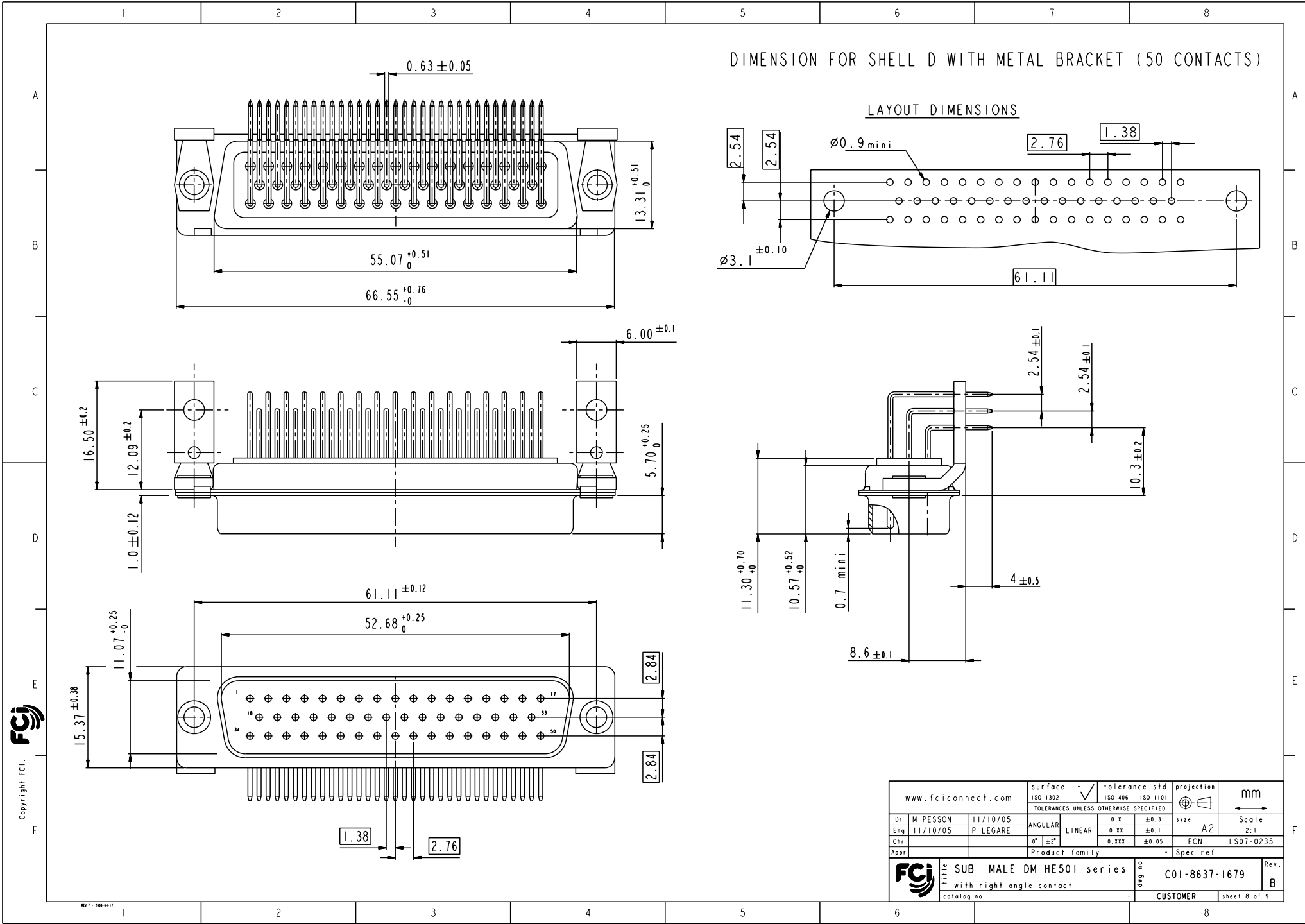
DIMENSION FOR SHELL D WITHOUT BRACKET (50 CONTACTS)



www.fciconnect.com		surface ISO 1302	tolerance std ISO 406 ISO 1101	projection mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED		
Dr M PESSON	11/10/05	ANGULAR	0.X ±0.3	size A2 Scale 2:1
Eng 11/10/05	P LEGARE	LINEAR	0.XX ±0.1	ECN LS07-0235
Chr		0° ±2°	0.XXX ±0.05	Spec ref
Product family				
SUB MALE DM HE501 series with right angle contact catalog no		ang no C01-8637-1679	Rev. B	sheet 7 of 9
		CUSTOMER		

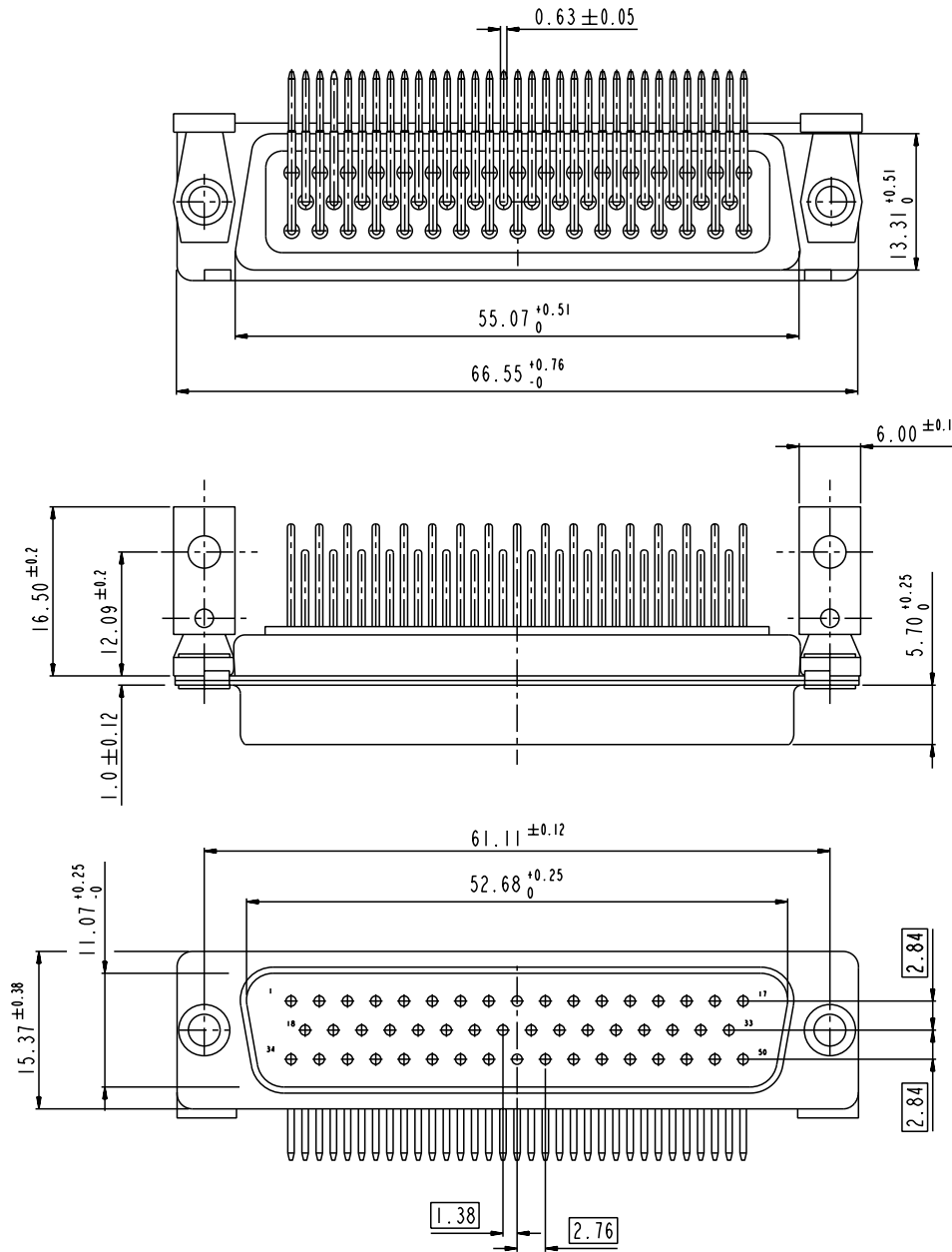
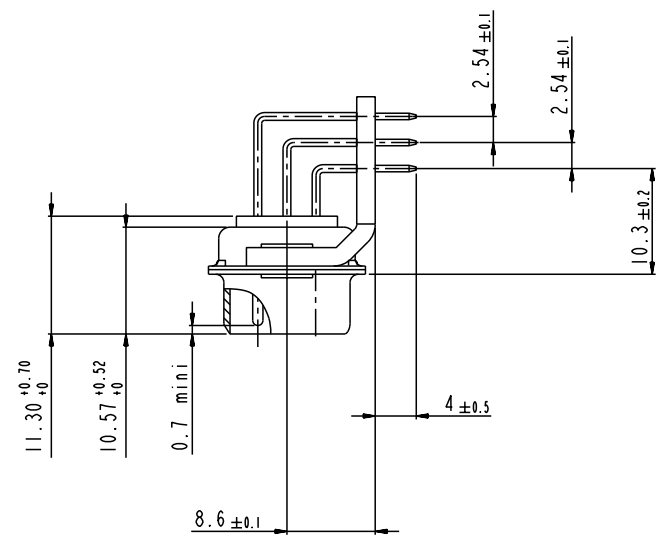
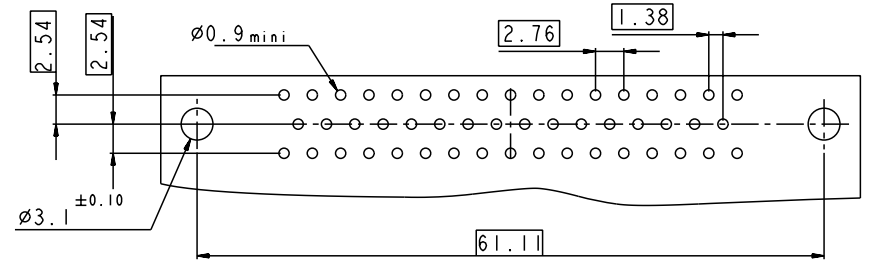
REV 7 - 2008-04-17

1 2 3 4 5 6 7 8



DIMENSION FOR SHELL D WITH METAL BRACKET (50 CONTACTS)

LAYOUT DIMENSIONS



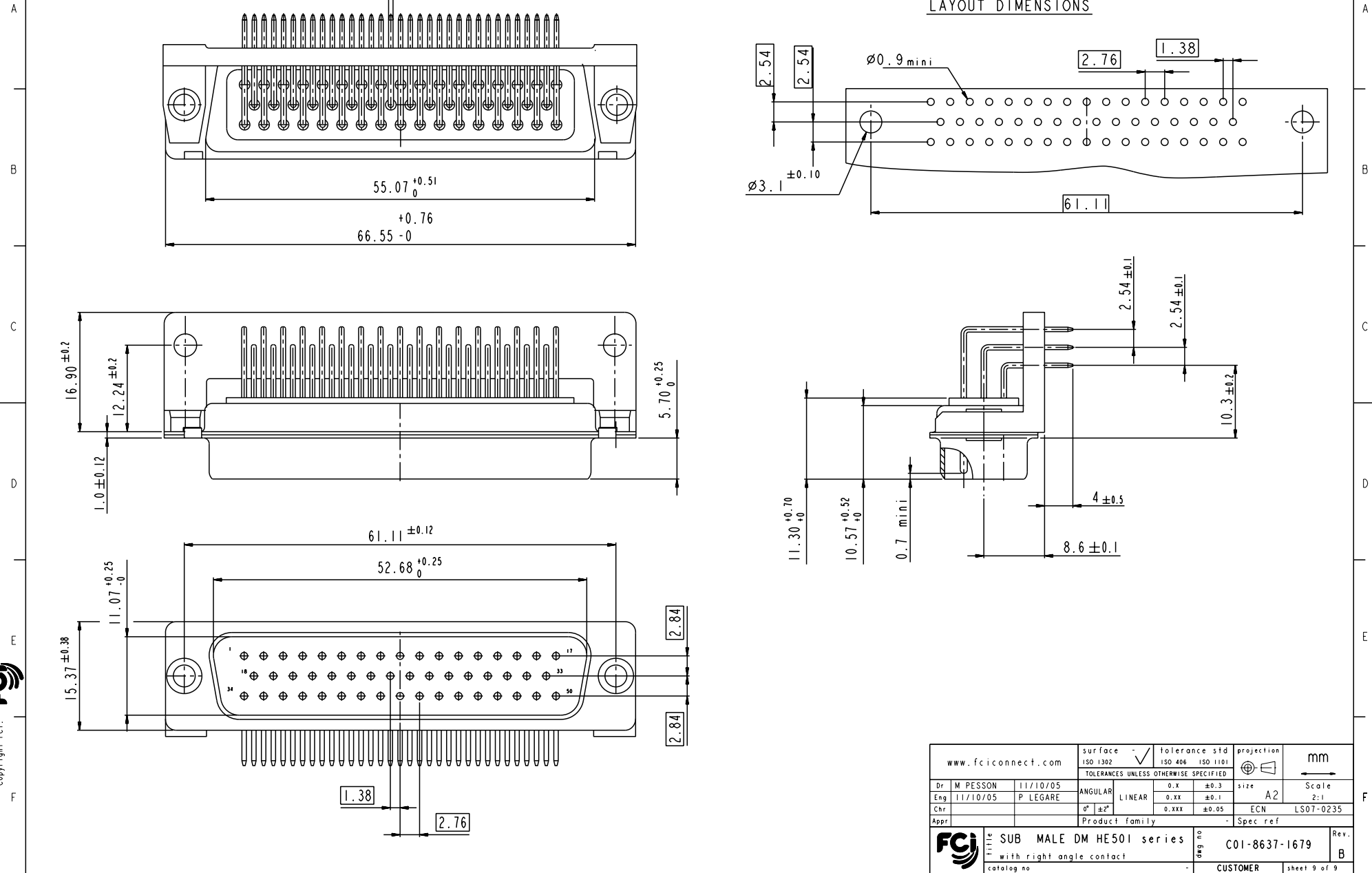
Copyright FCI

www.fciconnect.com		surface ISO 1302	tolerance std ISO 406 ISO 1101	projection mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED		
Dr M PESSON	11/10/05	ANGULAR	0.X ±0.3	size A2
Eng 11/10/05	P LEGARE	LINEAR	0.XX ±0.1	Scale 2:1
Chr		0° ±2°	0.XXX ±0.05	ECN LS07-0235
Appr		Product family		Spec ref
FCI		SUB MALE DM HE501 series		Rev. B
		with right angle contact		ang no C01-8637-1679
		catalog no		CUSTOMER sheet 8 of 9



DIMENSIONS FOR SHELL SIZE D WITH PLASTIC BRACKET (50 CONTACTS)

LAYOUT DIMENSIONS



Copyright FCI.

www.fciconnect.com		surface -	tolerance std	projection	mm
		ISO 1302	ISO 406 ISO 1101		
		TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr	M PESSON	11/10/05	ANGULAR	0.X ±0.3	size A2 Scale 2:1
Eng	11/10/05	P LEGARE	LINEAR	0.XX ±0.1	
Chr			0° ±2'	0.XXX ±0.05	ECN LS07-0235
Appr			Product family	-	Spec ref
		SUB MALE DM HE501 series		ang no	C01-8637-1679
		with right angle contact		Rev.	B
catalog no		CUSTOMER		sheet 9 of 9	