

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

# DBML25P500M

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

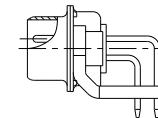
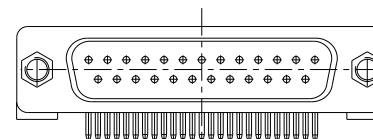
- 5** Right angle/Europe standard

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

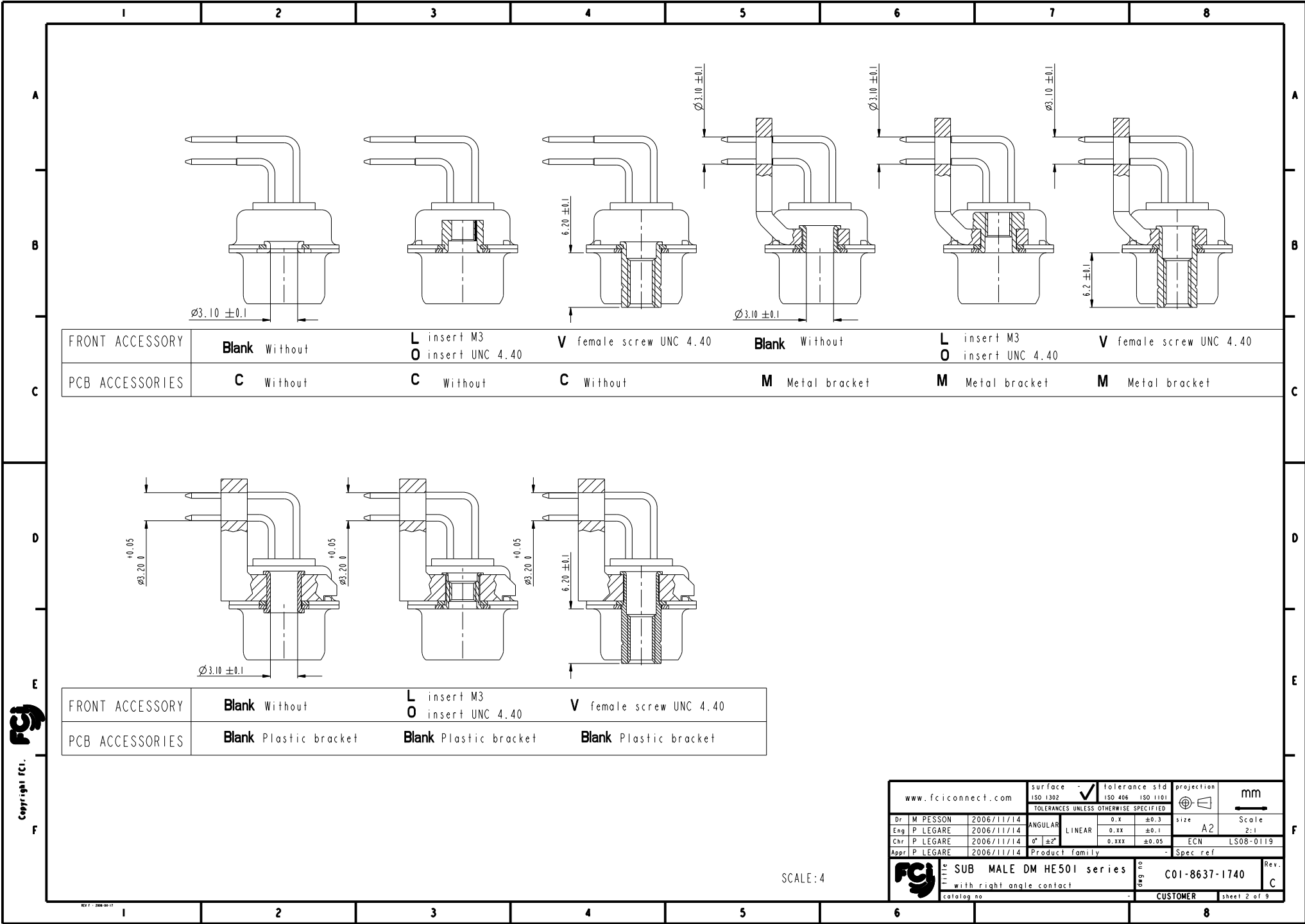


25 WAY for Example

rev	acc no	dr	date
A	LS06-0174	MPE	2006/11/14
B	LS07-0068	MPE	2007/03/02
C	LS08-0119	MPE	2008/04/29
-	-	-	-
-	-	-	-

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

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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 - 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
Eng	P LEGARE	2006/11/14	LINEAR	0.XX ±0.1
Chr	P LEGARE	2006/11/14	° ±2'	0.XXX ±0.05
Appr	P LEGARE	2006/11/14	Product family	- Spec ref
SUB MALE DM HE501 series		ang no	C01-8637-1740	
with right angle contact		Rev.	C	
catalog no		CUSTOMER		sheet 2 of 9

SCALE: 4

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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
#	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

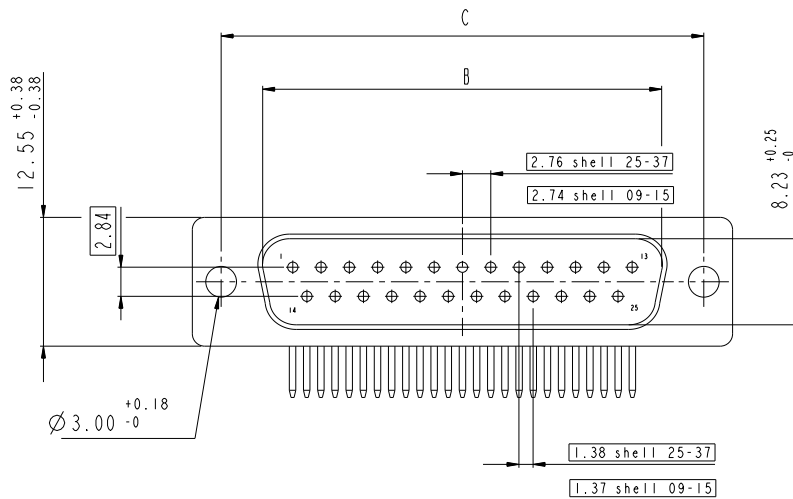
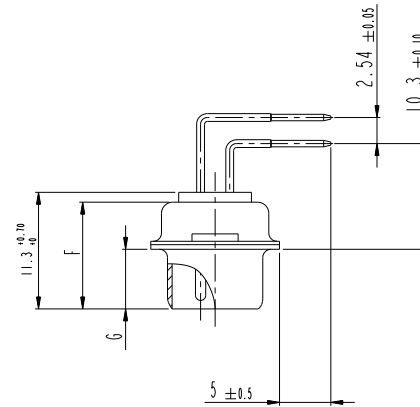
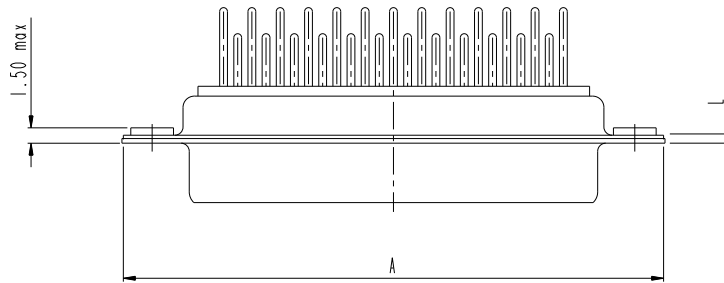
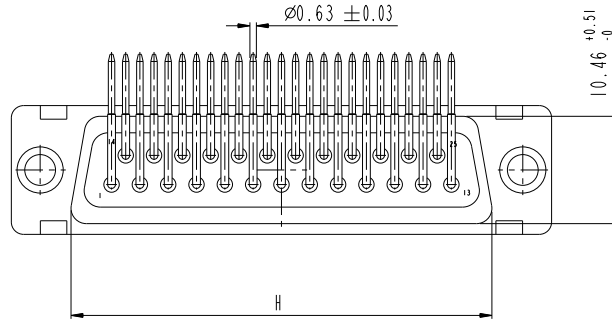
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www.fciconnect.com		surface - ISO 1302	tolerance std ISO 406 ISO 1101	projection mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED		
Dr M PESSON	2006/11/14	ANGULAR	0.X ±0.3	size A2 Scale 2:1
Eng P LEGARE	2006/11/14	LINEAR	0.XX ±0.1	ECN LS08-0119
Chr P LEGARE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

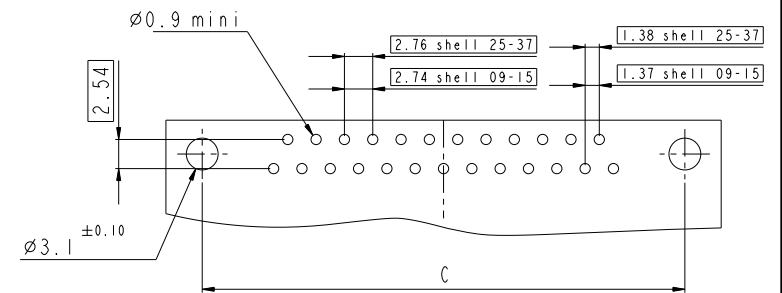
DIMENSION FOR SHELL E,A,B,C WITHOUT BRACKET

Dimensions are in millimeters

Shell size	Number of contacts	A $^{+0.76}_{-0}$	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



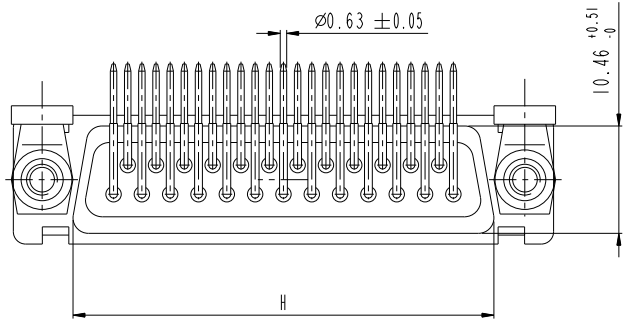
LAYOUT DIMENSIONS



SCALE: 3

www.fciconnect.com		surface -	tolerance std	projection	mm
		ISO 1302	ISO 406 ISO 1101		
		TOLERANCES UNLESS OTHERWISE SPECIFIED			
Dr	M PESSON	2006/11/14	ANGULAR	0.X $\pm 0.3$	size A2 Scale 2:1
Eng	P LEGARE	2006/11/14	LINEAR	0.XX $\pm 0.1$	ECN LS08-0119
Chr	P LEGARE	2006/11/14	$0^\circ \pm 2^\circ$	0.XXX $\pm 0.05$	
Appr	P LEGARE	2006/11/14	Product family	-	Spec ref
		SUB MALE DM HE501 series		ang no	C01-8637-1740
		with right angle contact		Rev.	C
catalog no		CUSTOMER		sheet 4 of 9	

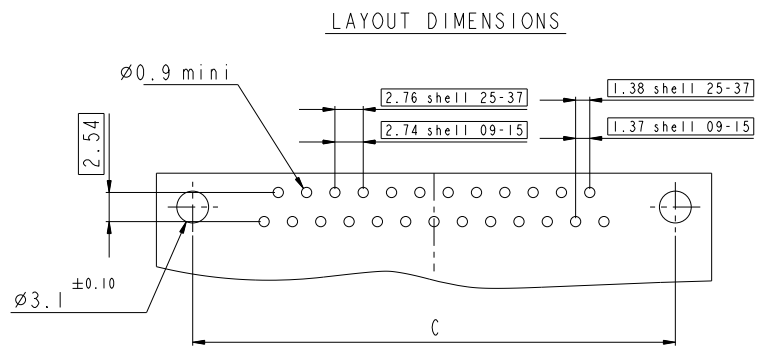
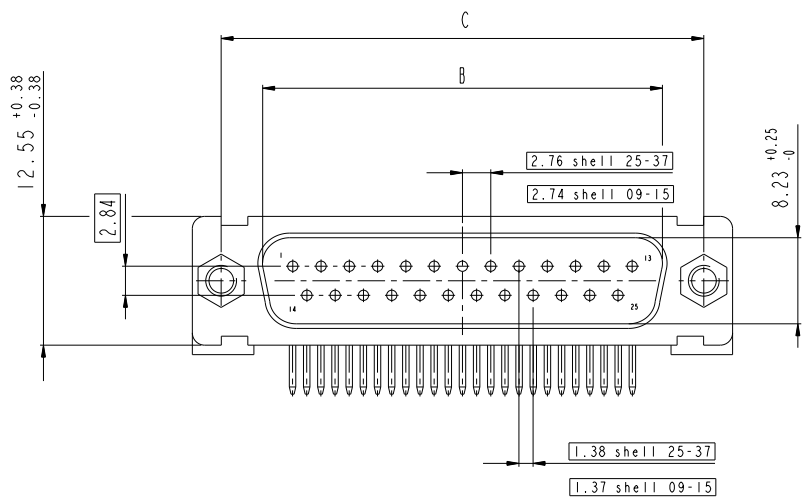
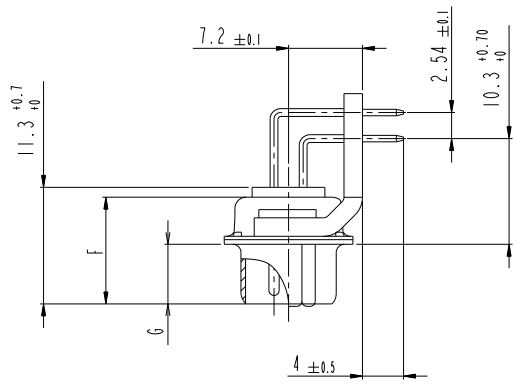
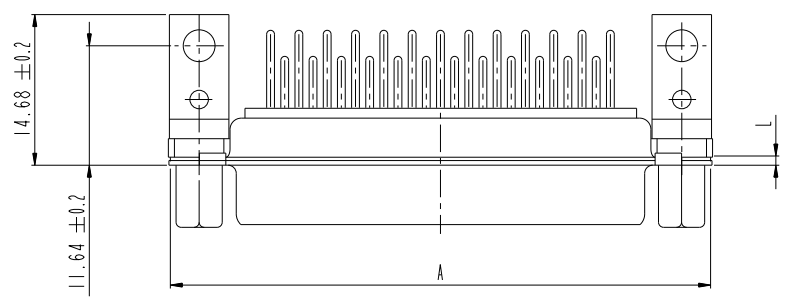
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### DIMENSION FOR SHELL E,A,B,C WITH METAL BRACKET

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	2006/11/14	ANGULAR	0.X $\pm 0.3$	size A2 Scale 2:1
Eng P LEGARE	2006/11/14	LINEAR	0.XX $\pm 0.1$	ECN LS08-0119
Chr P LEGARE	2006/11/14	$\varnothing \pm z$	0.XXX $\pm 0.05$	
Appr P LEGARE	2006/11/14	Product family	- Spec ref	
SUB MALE DM HE501 series		ang no	C01-8637-1740	
with right angle contact		Rev.	C	
catalog no		CUSTOMER sheet 5 of 9		

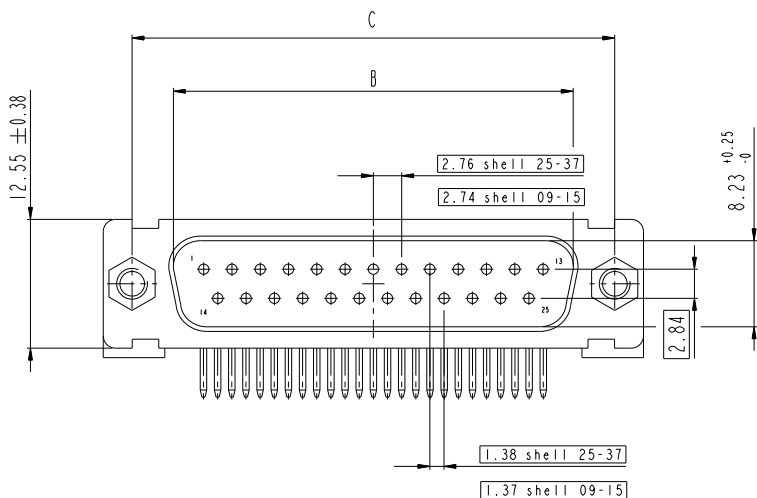
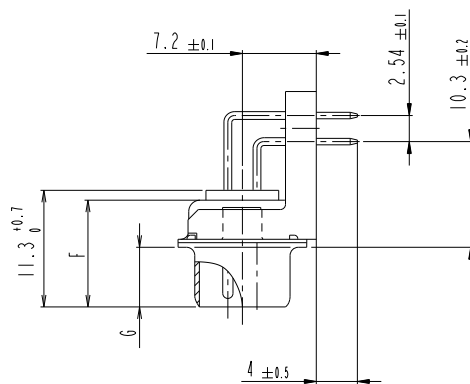
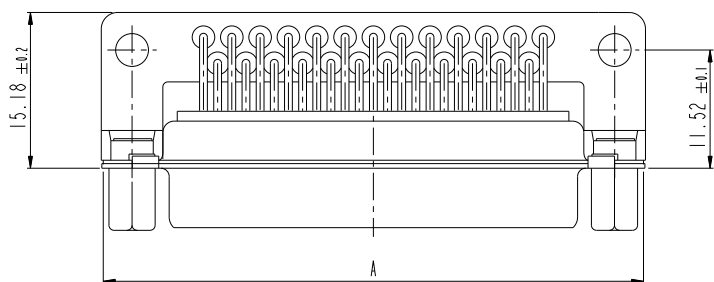
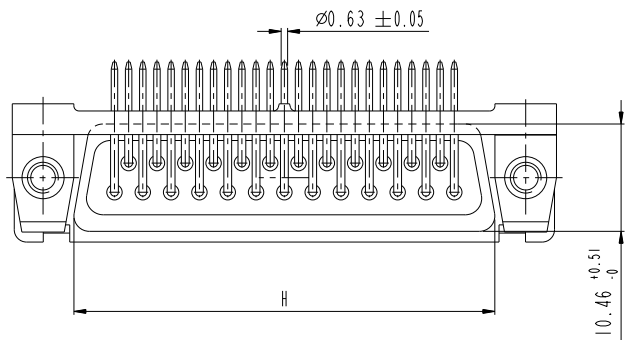
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I 2 3 4 5 6 7 8

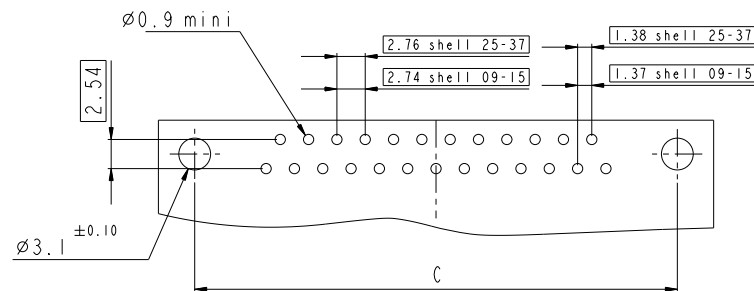
### DIMENSION FOR SHELL E,A,B,C WITH PLASTIC BRACKET

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

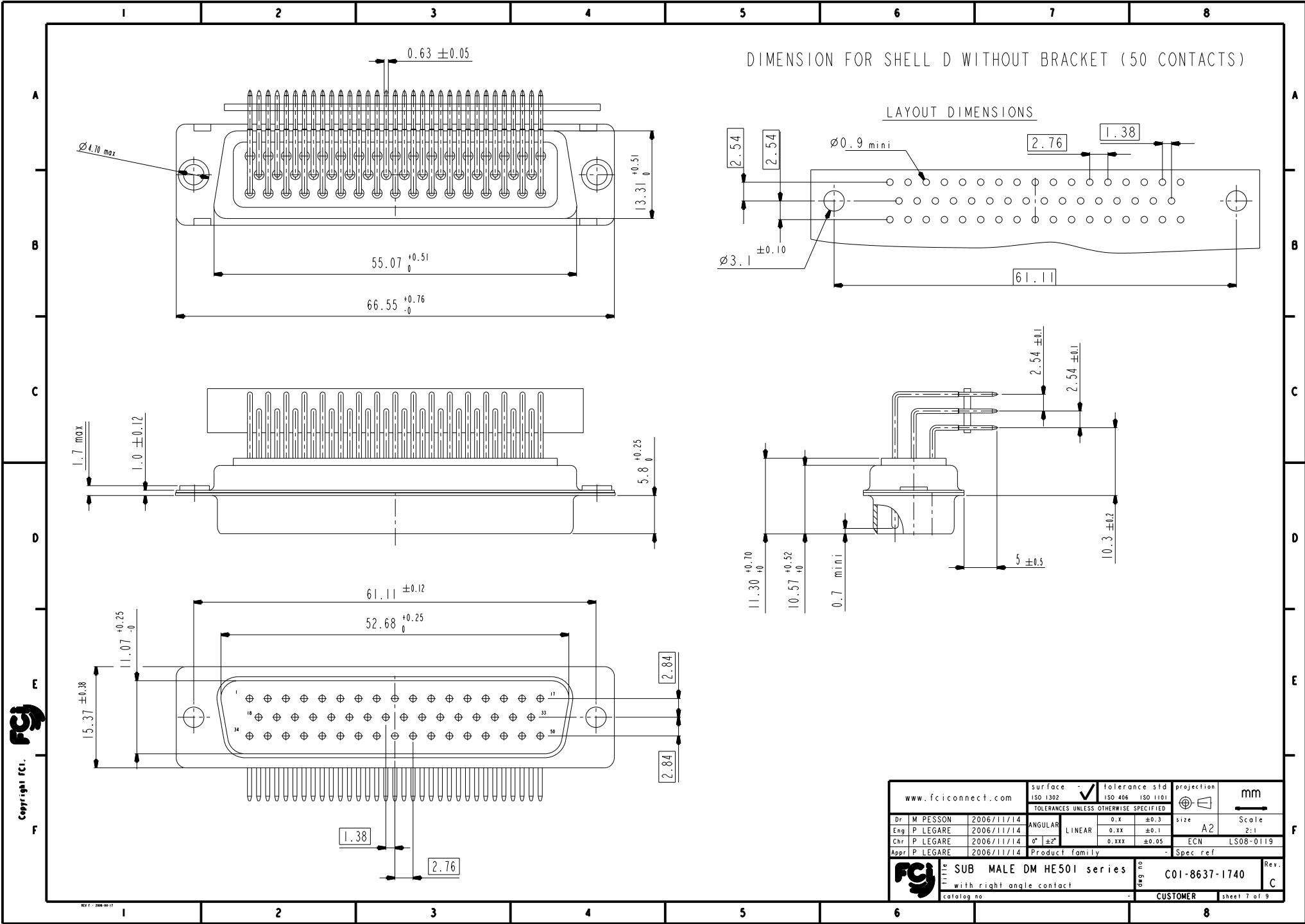


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www.fciconnect.com		surface - ISO 1302	tolerance std ISO 406 ISO 1101	projection mm
		TOLERANCES UNLESS OTHERWISE SPECIFIED		
Dr M PESSON	2006/11/14	ANGULAR	0.X ±0.3	size A2 Scale 2:1
Eng P LEGARE	2006/11/14	LINEAR	0.XX ±0.1	ECN LS08-0119
Chr P LEGARE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

REV 7 - 2006-04-17

I 2 3 4 5 6 7 8

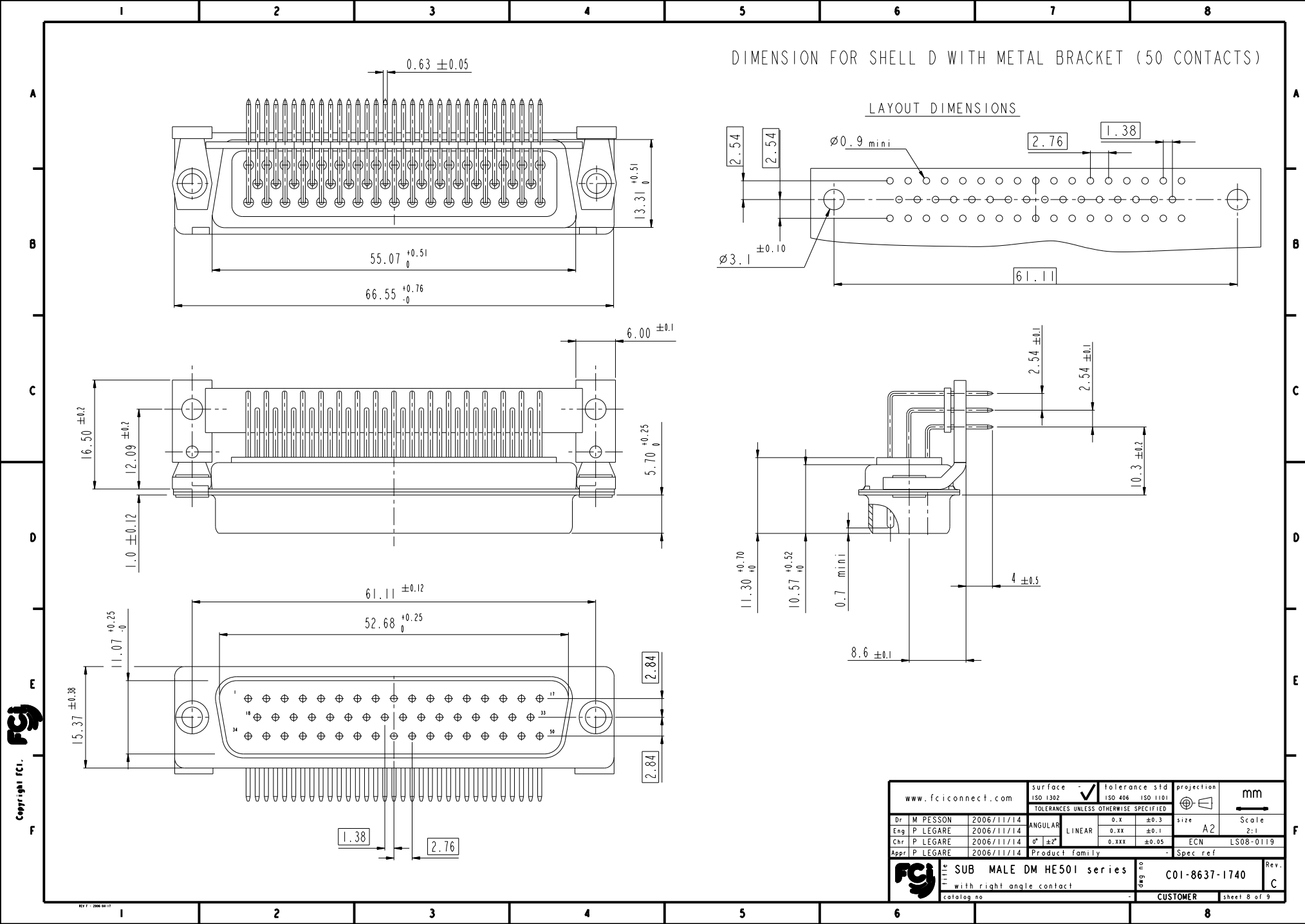


DIMENSION FOR SHELL D WITHOUT BRACKET (50 CONTACTS)

LAYOUT DIMENSIONS

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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	size A2
Eng	P LEGARE	2006/11/14	LINEAR	Scale 2:1
Chr	P LEGARE	2006/11/14	$\sigma^{\circ} \pm 2^{\circ}$	ECN LS08-0119
Appr	P LEGARE	2006/11/14	Product family	Spec ref
<b>fci</b> SUB MALE DM HE501 series		with right angle contact		Rev. C
catalog no		C01-8637-1740		CUSTOMER sheet 7 of 9



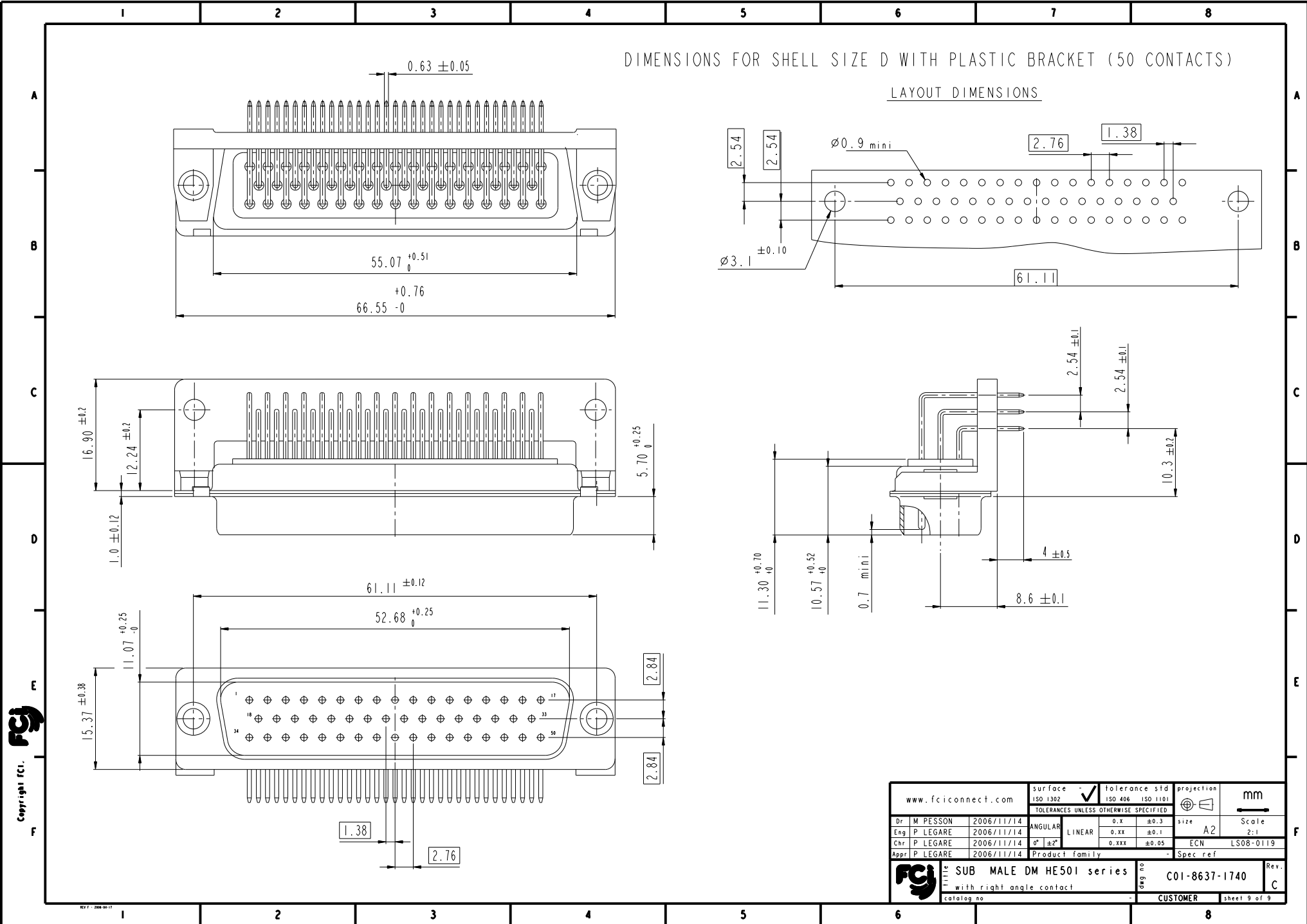
DIMENSION FOR SHELL D WITH METAL BRACKET (50 CONTACTS)

LAYOUT DIMENSIONS

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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	Spec ref
Appr P LEGARE	2006/11/14	Product family		
<b>fci</b> SUB MALE DM HE501 series		ang no	C01-8637-1740	
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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	Ø ±2	0.XXX ±0.05	Product family - Spec ref
Appr P LEGARE	2006/11/14	SUB MALE DM HE501 series with right angle contact		Rev. C
catalog no		C01-8637-1740		CUSTOMER sheet 9 of 9