

## REFERENCE SPECIFICATIONS

-NFC 93425 (in compliance with HE 501)

## PHYSICAL CHARACTERISTICS

-INSULATOR MATERIAL: THERMOPLASTIC UL94V0

-CONTACT MATERIAL: PHOSPHOR BRONZE,  
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

# DBML25S500M

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

**S** :Socket

Termination type

**5** Right angle/Europe standard

Plating

**00** Right angle 500 matings/unmatings

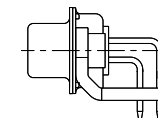
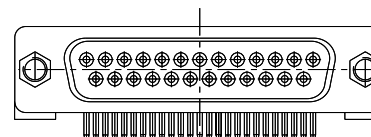
**43** Right angle 500 matings/unmatings  
for harsh environment

PCB accessories definition(see sheet 2)

**Blank** :Plastic brackets

**C** :Without brackets

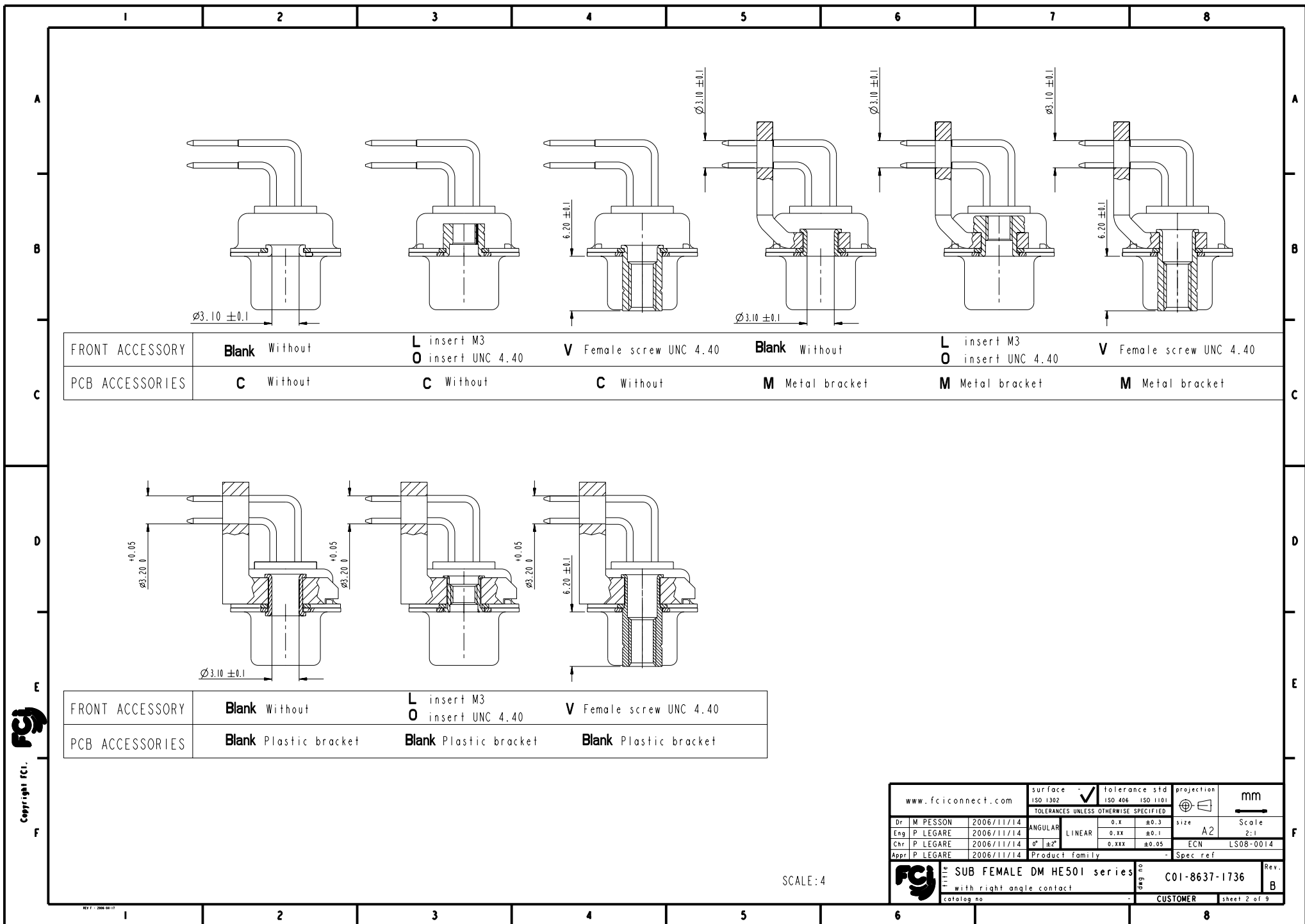
**M** :Metal brackets



25 WAY for Example

| rev | acc no    | dr  | date       |
|-----|-----------|-----|------------|
| A   | 3506-0174 | MPE | 2006/11/14 |
| B   | 3508-0014 | MPE | 2007/01/17 |
| -   | -         | -   | -          |
| -   | -         | -   | -          |
| -   | -         | -   | -          |
| -   | -         | -   | -          |
| -   | -         | -   | -          |

|                                       |          |  |            |                                                             |  |       |                  |          |    |               |  |  |
|---------------------------------------|----------|--|------------|-------------------------------------------------------------|--|-------|------------------|----------|----|---------------|--|--|
| 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.X   | ±0.3             | size     |    | A2            |  |  |
| Eng                                   | P LEGARE |  | 2006/11/14 | LINEAR                                                      |  | 0.XX  | ±0.1             | Scale    |    | 2:1           |  |  |
| Chr                                   | P LEGARE |  | 2006/11/14 | 0° ±2°                                                      |  | 0.XXX | ±0.05            | ECN      |    | LS08-0014     |  |  |
| Appr                                  | P LEGARE |  | 2006/11/14 | Product family                                              |  |       |                  | Spec ref |    |               |  |  |
| FCI                                   |          |  |            | SUB FEMALE DM HE501 series                                  |  |       |                  | deg no   |    | C01-8637-1736 |  |  |
|                                       |          |  |            | with right angle contact                                    |  |       |                  | Rev.     |    | B             |  |  |
| catalog no.                           |          |  |            |                                                             |  |       |                  | CUSTOMER |    | sheet 1 of 9  |  |  |



| PART NUMBER | FRONT ACCESSORY       | PCB ACCESSORY   |
|-------------|-----------------------|-----------------|
| D*MxxS500C  | without               | without         |
| D*MLxxS500C | insert M3             | without         |
| D*MOxxS500C | insert UNC 4.40       | without         |
| D*MVxxS500C | female screw UNC 4.40 | without         |
| D*MxxS500M  | without               | Metal bracket   |
| D*MLxxS500M | insert M3             | Metal bracket   |
| D*MOxxS500M | insert UNC 4.40       | Metal bracket   |
| D*MVxxS500M | female screw UNC 4.40 | Metal bracket   |
| D*MxxS500   | without               | Plastic bracket |
| D*MLxxS500  | insert M3             | Plastic bracket |
| D*MOxxS500  | insert UNC 4.40       | Plastic bracket |
| D*MVxxS500  | 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*MxxS543C  | without               | without         |
| D*MLxxS543C | insert M3             | without         |
| D*MOxxS543C | insert UNC 4.40       | without         |
| D*MVxxS543C | female screw UNC 4.40 | without         |
| D*MxxS543M  | without               | Metal bracket   |
| D*MLxxS543M | insert M3             | Metal bracket   |
| D*MOxxS543M | insert UNC 4.40       | Metal bracket   |
| D*MVxxS543M | female screw UNC 4.40 | Metal bracket   |
| D*MxxS543   | without               | Plastic bracket |
| D*MLxxS543  | insert M3             | Plastic bracket |
| D*MOxxS543  | insert UNC 4.40       | Plastic bracket |
| D*MVxxS543  | female screw UNC 4.40 | Plastic bracket |

CROSS REFERENCES HE501 and FCI

| HE501 P/N   | FCI P/N    | FRONT ACCESSORY | PCB ACCESSORY   |
|-------------|------------|-----------------|-----------------|
| HE501PxxVS6 | D*MxxS500  | without         | Plastic bracket |
| HE501MxxVS6 | D*MxxS500M | without         | Metal bracket   |

www.fciconnect.com

surface

ISO 1302

☒

tolerance std

ISO 406

ISO 1101

projection

mm

TOLERANCES UNLESS OTHERWISE SPECIFIED

0.X

±0.3

0.XX

±0.1

0.XXX

±0.05

size

A2

Scale

2:1

ECN

LS08-0014

|      |          |            |         |        |        |      |
|------|----------|------------|---------|--------|--------|------|
| Dr   | M PESSON | 2006/11/14 | ANGULAR | LINEAR | deg no | Rev. |
| Eng  | P LEGARE | 2006/11/14 | 0° ±2°  |        |        | B    |
| Chr  | P LEGARE | 2006/11/14 |         |        |        |      |
| Appr | P LEGARE | 2006/11/14 |         |        |        |      |

SUB FEMALE DM HE501 series

with right angle contact

catalog no

CUSTOMER

sheet 3 of 9

Product family

-

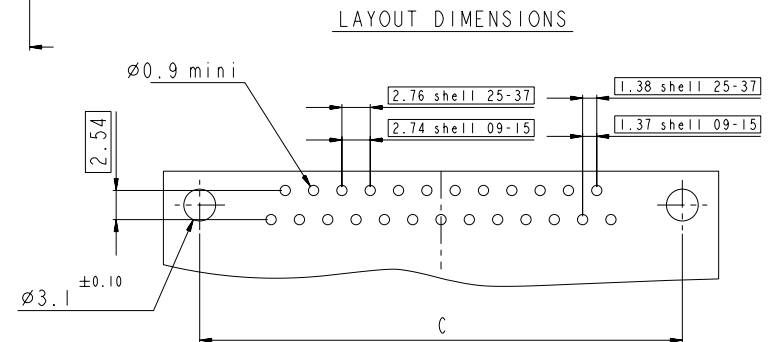
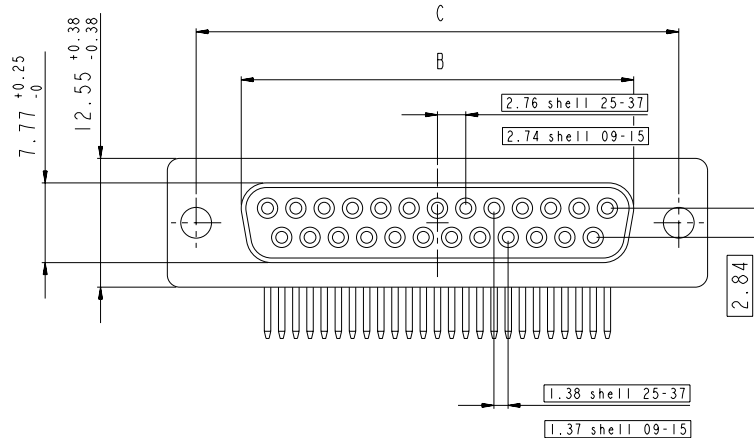
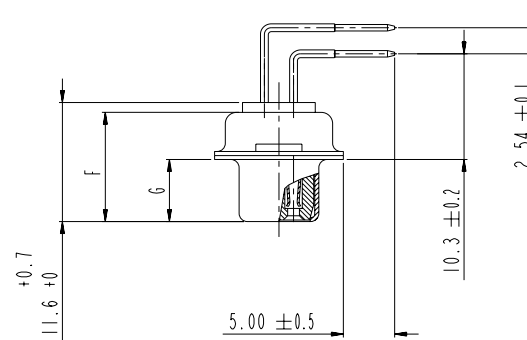
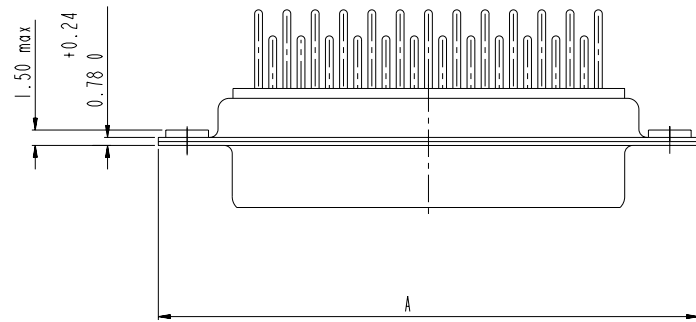
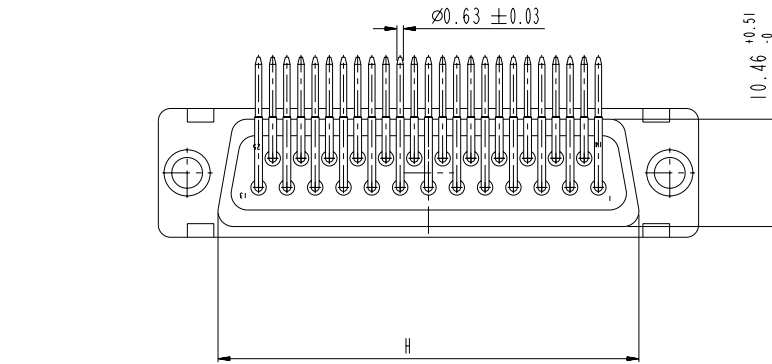
Spec ref

C01-8637-1736

# 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 $\pm 0.12$ | F <sup>+0.57</sup> <sub>-0</sub> | G <sup>+0.25</sup> <sub>-0</sub> | H <sup>+0.51</sup> <sub>-0</sub> |
|------------|--------------------|----------------------------------|----------------------------------|--------------|----------------------------------|----------------------------------|----------------------------------|
| E          | 09                 | 30.43                            | 16.21                            | 24.99        | 10.64                            | 6.05                             | 19.02                            |
| A          | 15                 | 38.76                            | 24.54                            | 33.32        | 10.64                            | 6.05                             | 27.25                            |
| B          | 25                 | 52.65                            | 38.25                            | 47.04        | 10.64                            | 6.05                             | 41.02                            |
| C          | 37                 | 68.94                            | 54.71                            | 63.50        | 10.64                            | 6.05                             | 57.45                            |



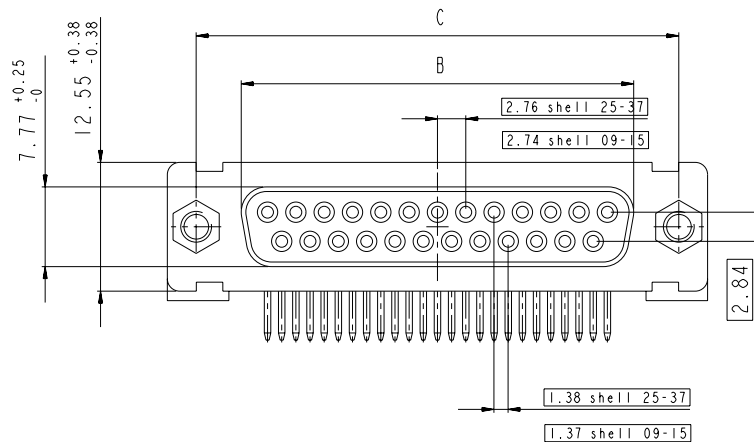
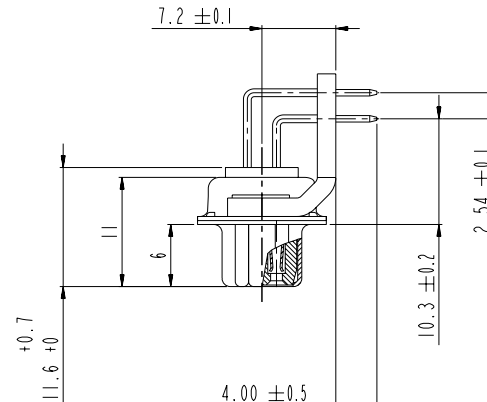
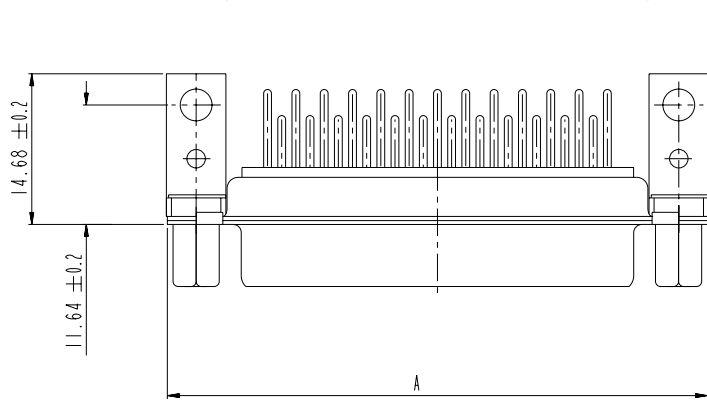
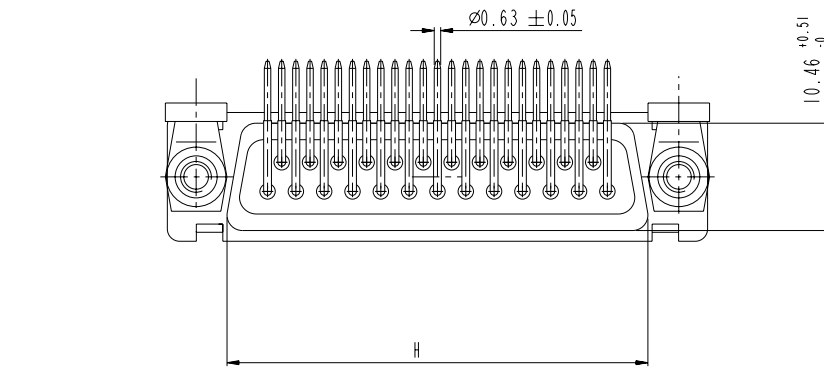
SCALE: 3

|                            |          |            |                                       |               |               |               |
|----------------------------|----------|------------|---------------------------------------|---------------|---------------|---------------|
| 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           | ±0.3          | size A2       |
| Eng                        | P LEGARE | 2006/11/14 | LINEAR                                | 0.XX          | ±0.1          | Scale 2:1     |
| Chr                        | P LEGARE | 2006/11/14 | 0° ±2°                                | 0.XXX         | ±0.05         | ECN LS08-0014 |
| Appr                       | P LEGARE | 2006/11/14 | Product family                        |               | Spec ref      |               |
| SUB FEMALE DM HE501 series |          |            | with right angle contact              |               | C01-8637-1736 |               |
| catalog no                 |          |            | CUSTOMER                              |               | sheet 4 of 9  |               |

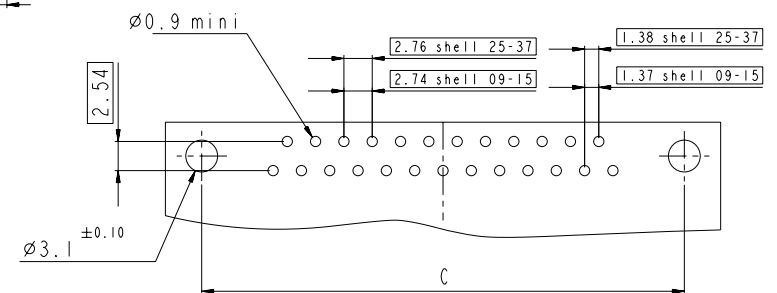
# DIMENSION FOR SHELL E,A,B,C WITH METAL BRACKET

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 $\pm 0.12$ | F <sup>+0.57</sup> <sub>-0</sub> | G <sup>+0.25</sup> <sub>-0</sub> | H <sup>+0.51</sup> <sub>-0</sub> |
|------------|--------------------|----------------------------------|----------------------------------|--------------|----------------------------------|----------------------------------|----------------------------------|
| E          | 09                 | 30.43                            | 16.21                            | 24.99        | 10.64                            | 6.05                             | 19.02                            |
| A          | 15                 | 38.76                            | 24.54                            | 33.32        | 10.64                            | 6.05                             | 27.25                            |
| B          | 25                 | 52.65                            | 38.25                            | 47.04        | 10.64                            | 6.05                             | 41.02                            |
| C          | 37                 | 68.94                            | 54.71                            | 63.50        | 10.64                            | 6.05                             | 57.45                            |

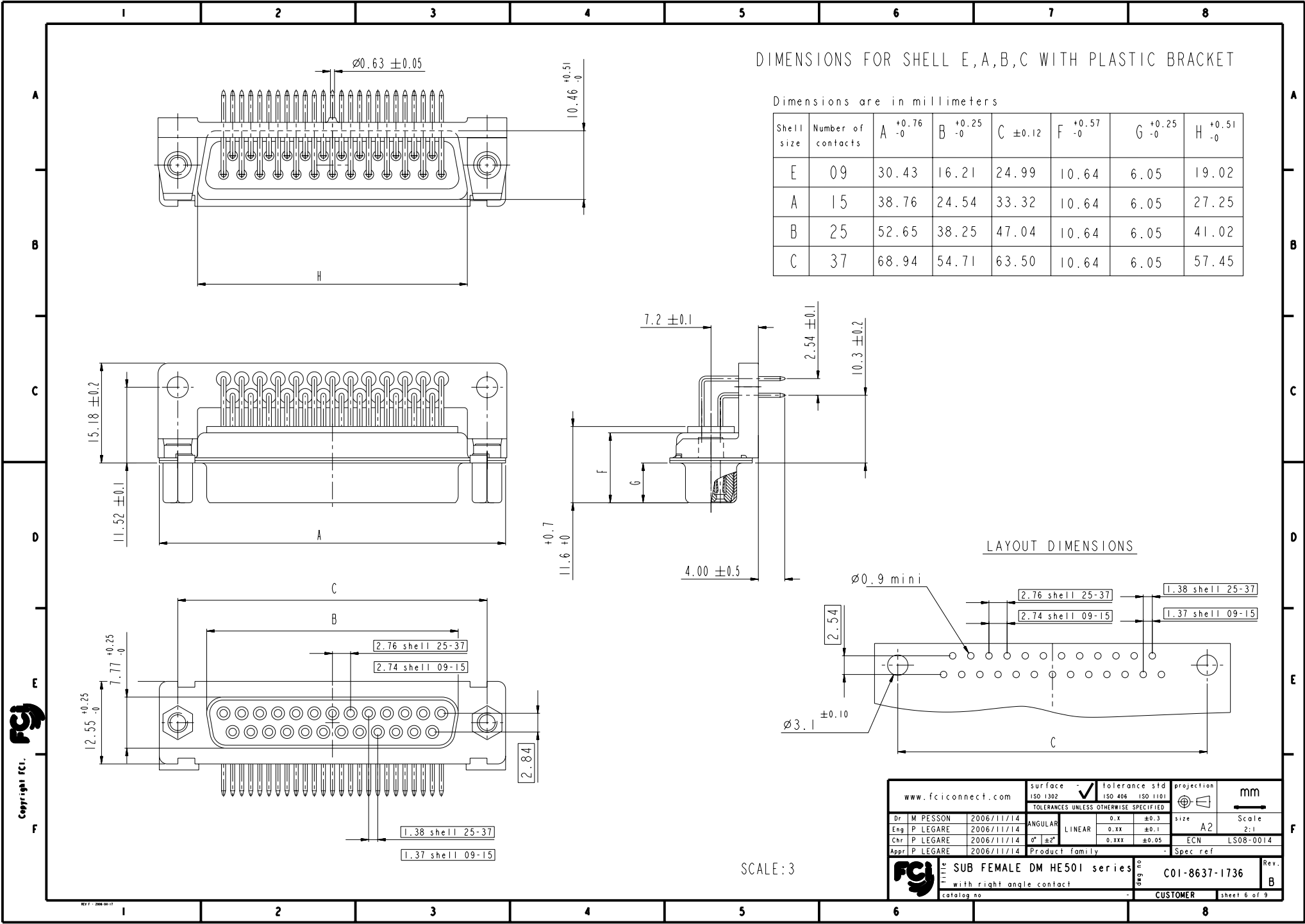


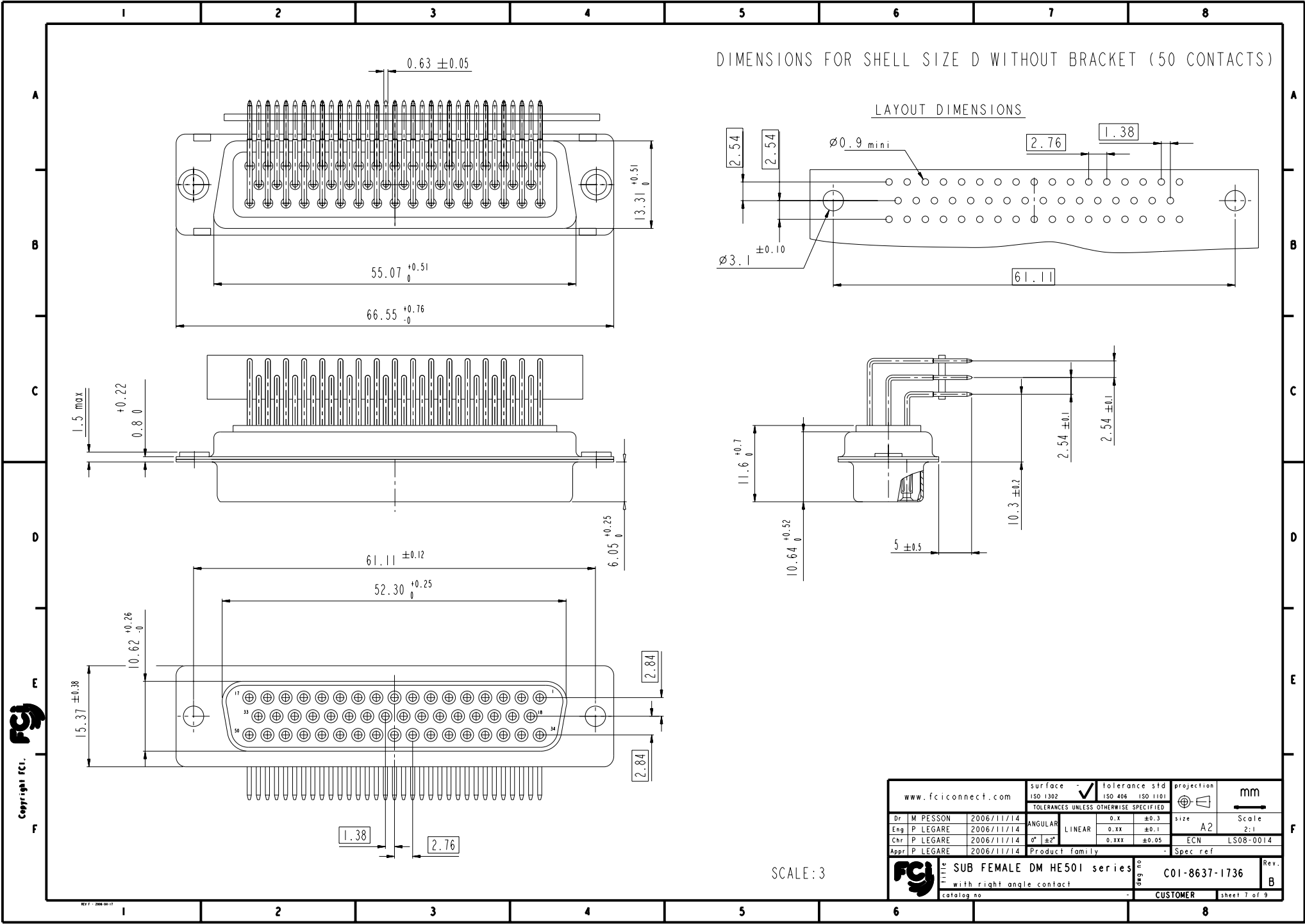
## LAYOUT DIMENSIONS



SCALE: 3

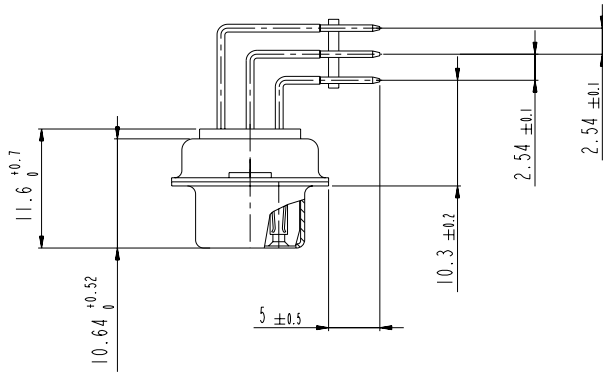
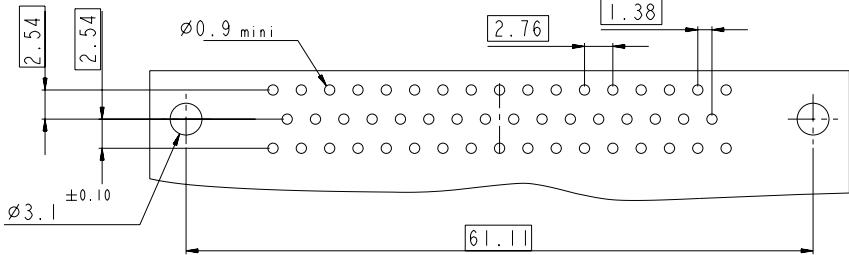
|                            |          |                                       |                |              |       |
|----------------------------|----------|---------------------------------------|----------------|--------------|-------|
| www.fciconnect.com         |          | surface -                             | tolerance std  | projection   | mm    |
|                            |          | ISO 1302                              | ISO 406        | ISO 1101     |       |
|                            |          | TOLERANCES UNLESS OTHERWISE SPECIFIED |                |              |       |
| Dr                         | M PESSON | 2006/11/14                            | ANGULAR        | 0.X          | ±0.3  |
| Eng                        | P LEGARE | 2006/11/14                            | LINEAR         | 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 FEMALE DM HE501 series |          | deg no                                | C01-8637-1736  |              | Rev.  |
| with right angle contact   |          |                                       |                |              | B     |
| catalog no                 |          | CUSTOMER                              |                | sheet 5 of 9 |       |





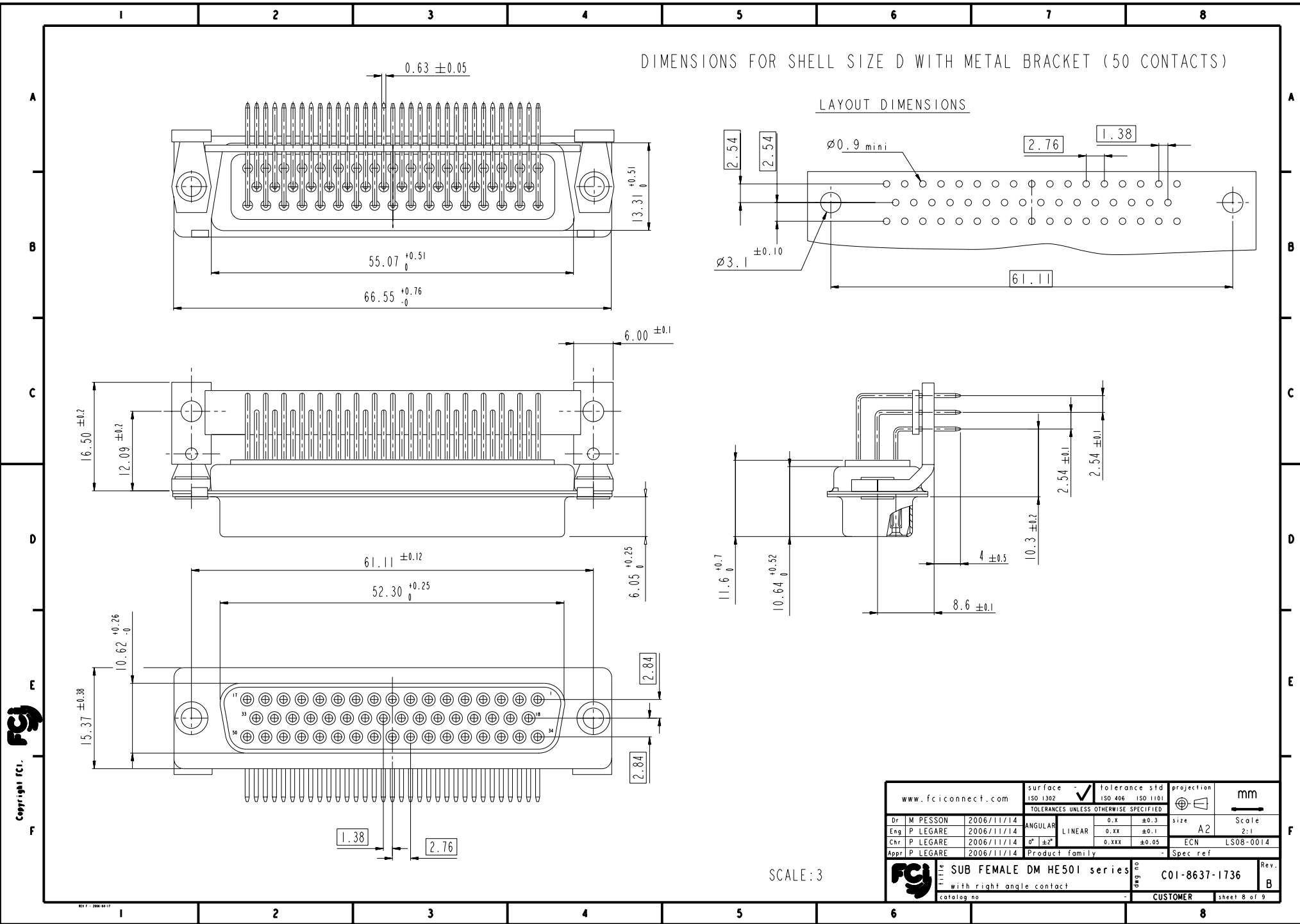
DIMENSIONS FOR SHELL SIZE D WITHOUT BRACKET (50 CONTACTS)

LAYOUT DIMENSIONS



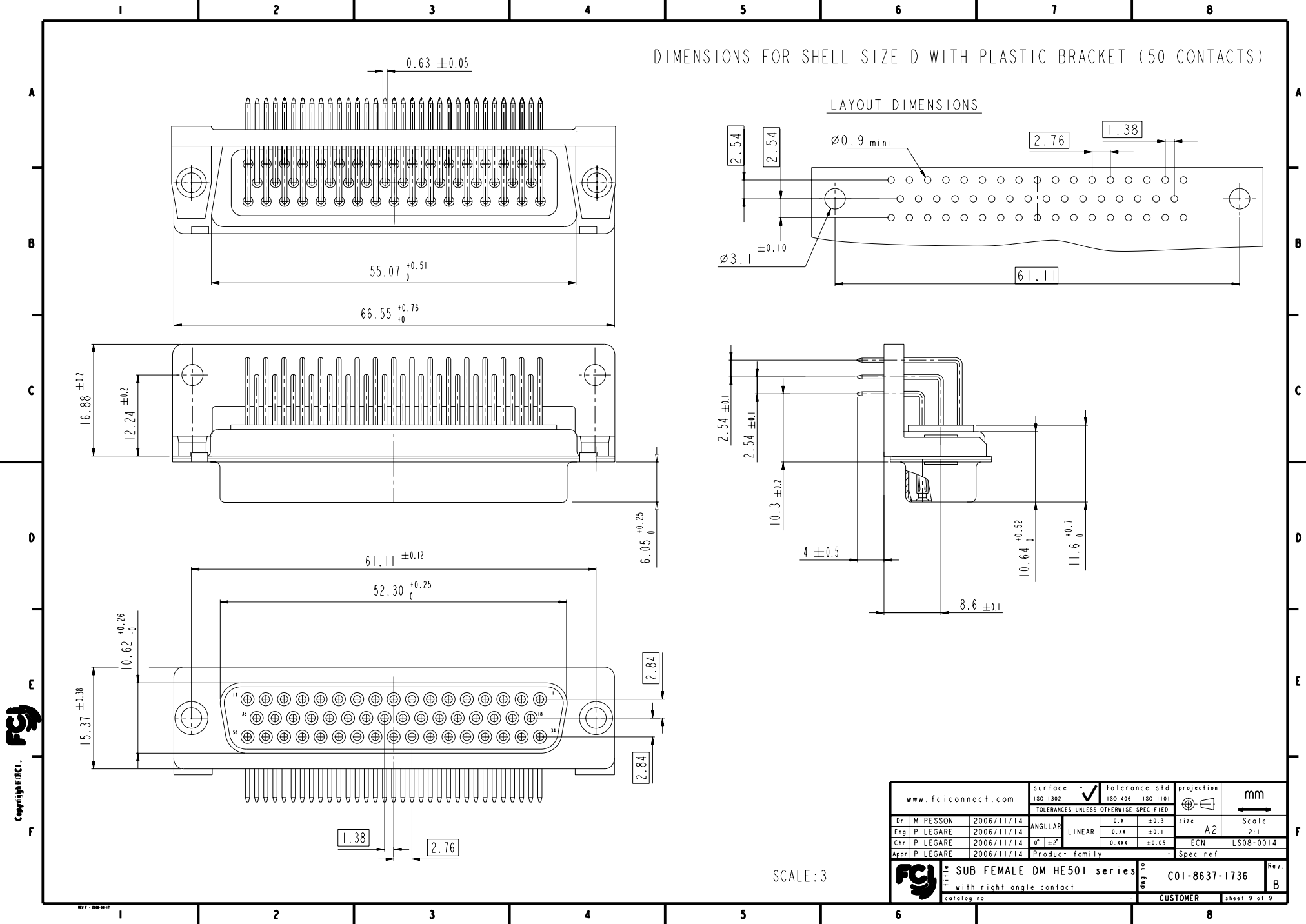
SCALE:3

|                            |          |                                       |                       |               |            |          |            |           |
|----------------------------|----------|---------------------------------------|-----------------------|---------------|------------|----------|------------|-----------|
| www.fciconnect.com         |          | surface                               | ISO 1302              | tolerance std | ISO 406    | ISO 1101 | projection | mm        |
|                            |          | TOLERANCES UNLESS OTHERWISE SPECIFIED |                       |               |            |          | size       | Scale     |
| Dr                         | M PESSON | 2006/11/14                            | ANGULAR               | 0.X           | $\pm 0.3$  |          | A2         | 2:1       |
| Eng                        | P LEGARE | 2006/11/14                            | LINEAR                | 0.XX          | $\pm 0.1$  |          | ECN        | LS08-0014 |
| Chr                        | P LEGARE | 2006/11/14                            | $0^\circ \pm 2^\circ$ | 0.XXX         | $\pm 0.05$ |          | Spec ref   |           |
| Appr                       | P LEGARE | 2006/11/14                            | Product family        |               |            |          |            |           |
| SUB FEMALE DM HE501 series |          | with right angle contact              |                       | C01-8637-1736 |            | Rev.     |            | B         |
| catalog no                 |          | CUSTOMER                              |                       | sheet 7 of 9  |            |          |            |           |



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 |
| Eng                        | P LEGARE | 2006/11/14                            | LINEAR         | 0.XX          | ±0.1    |              |            |       |
| Chr                        | P LEGARE | 2006/11/14                            | 0° ±2°         | 0.XXX         | ±0.05   | ECN          | LS08-0014  |       |
| Appr                       | P LEGARE | 2006/11/14                            | Product family | Spec ref      |         |              |            |       |
| SUB FEMALE DM HE501 series |          | with right angle contact              |                | C01-8637-1736 |         | Rev.         |            |       |
| catalog no                 |          |                                       |                | CUSTOMER      |         | sheet 8 of 9 |            |       |



SCALE:3

|                                                                                       |          |            |                                                                                          |        |       |                                                                                                  |               |                                                                                          |        |
|---------------------------------------------------------------------------------------|----------|------------|------------------------------------------------------------------------------------------|--------|-------|--------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------|--------|
| www.fciconnect.com                                                                    |          |            | surface - <input checked="" type="checkbox"/> tolerance std<br>ISO 1302 ISO 406 ISO 1101 |        |       | projection  |               | mm  |        |
|                                                                                       |          |            | TOLERANCES UNLESS OTHERWISE SPECIFIED                                                    |        |       |                                                                                                  |               |                                                                                          |        |
| Dr                                                                                    | M PESSON | 2006/11/14 | ANGULAR                                                                                  | LINEAR | 0.X   | $\pm 0.3$                                                                                        | size A2       | Scale 2:1                                                                                |        |
| Eng                                                                                   | P LEGARE | 2006/11/14 |                                                                                          |        | 0.XX  | $\pm 0.1$                                                                                        |               |                                                                                          |        |
| Chr                                                                                   | P LEGARE | 2006/11/14 | 0° $\pm 2^\circ$                                                                         |        | 0.XXX | $\pm 0.05$                                                                                       | ECN           | LS08-0014                                                                                |        |
| Appr                                                                                  | P LEGARE | 2006/11/14 | Product family                                                                           |        |       | - Spec ref                                                                                       |               |                                                                                          |        |
|  |          |            | SUB FEMALE DM HE501 series                                                               |        |       |                                                                                                  | C01-8637-1736 |                                                                                          | Rev. B |
|                                                                                       |          |            | with right angle contact                                                                 |        |       |                                                                                                  |               |                                                                                          |        |
| catalog no                                                                            |          |            | -                                                                                        |        |       | CUSTOMER                                                                                         |               | sheet 9 of 9                                                                             |        |