

## REFERENCE SPECIFICATIONS

-NFC 93425 (in compliance with HE 507)

## PHYSICAL CHARACTERISTICS

-INSULATOR MATERIAL: THERMOPLASTIC UL94V0

-CONTACT MATERIAL: BRASS(SIGNAL CONTACT)

BRASS (POWERS CONTACT)

-ACCESSORIES: BRASS

-SHELLS: STEEL

## ELECTRICAL CHARACTERISTICS

-NOMINAL CURRENT: 7.5A (SIGNAL CONTACT)

30A (POWER CONTACT)

-CONTACT RESISTANCE:  $\leq 7.3$  m Ohms(SIGNAL and POWER)

-CONTACT/CONTACT :  $\geq 1000$  V

-CONTACT/GROUND :  $\geq 1200$  V

-INSULATION RESISTANCE:  $\geq 5000$  MOhms

- CLIMATIC CATEGORY: 55/125/21

TEMPERATURE RANGE -55°C TO +125°C

DAMP HEAT STEADY STATE 21 DAYS

SALT SPRAY 48 HOURS

- RETENTION AGAINST TORQUE: - Threaded insert: 0.7 N.m minimum  
- Female screw : 0.5 N.m minimum

## 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: Ni + Gold
  - Power contacts: Ni 1.27µm+Sn 2.5 to 7.5µm,pure bright
- Active area plating spec:
  - Signal and power contacts: Ni + Gold
- Shell plating :2 to 4µm Cu + Ni + 3 to 10µm Sn,pure bright
- Accessories: Sn pure bright + Nickel
- Packaging spec: See GS-14-920

Series

# DBL13W3P700G30LF

Shell size: **A B C**  
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 sheets)

Contacts

**P** :Pin

Termination type

**7** Right angle/USA

Plating

**00** 200 matings/unmatings  
**43** 500 matings/unmatings

PCB accessories definition  
see sheet 2

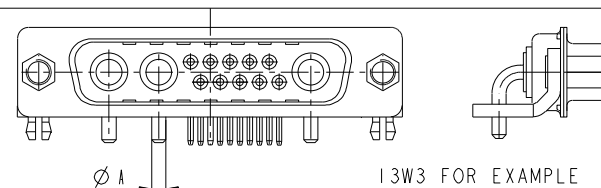
**A** :without accessory  
**H** :Metal brackets+harpoons for PCB 2.40mm  
**G** :Metal brackets+harpoons for PCB 1.60mm  
**M** :Metal brackets

Power contacts

**00** :Not fitted with power contact (signal contacts always fitted)  
**30** :Fitted with power contacts 30 Amp.

TABLE 1:PCB HOLE DIAMETERS

| POWER CONTACTS    |                                 | ACCESSORIES        |                    | SIGNAL CONTACTS    |
|-------------------|---------------------------------|--------------------|--------------------|--------------------|
| 30 A              | 2.00                            | Ø2.40              | Ø3.10              | Ø0.90 min          |
| Max current power | ØA <sup>+0.1</sup> <sub>0</sub> | PCB HOLE<br>+/-0.1 | PCB HOLE<br>+/-0.1 | PCB HOLE<br>+/-0.1 |



|                    |          |                                       |                  |            |          |
|--------------------|----------|---------------------------------------|------------------|------------|----------|
| www.fciconnect.com |          | surface                               | tolerance std    | projection | mm       |
|                    |          | ISO 1302                              | ISO 406 ISO 1101 |            |          |
|                    |          | TOLERANCES UNLESS OTHERWISE SPECIFIED |                  |            |          |
| Dr                 | M PESSON | 2005-10-11                            | ANGULAR          | 0.X        | ±0.3     |
| Eng                | P LEGARE | 2005-10-11                            | LINEAR           | 0.XX       | ±0.1     |
| Chr                |          |                                       |                  | 0.XXX      | ±0.05    |
| Appr               |          |                                       | Product family   | ECN        | F09-0092 |
|                    |          |                                       |                  | Spec ref   |          |

|     |           |     |            |       |     |      |    |    |            |        |          |              |
|-----|-----------|-----|------------|-------|-----|------|----|----|------------|--------|----------|--------------|
| rev | ecn no    | dr  | date       | title | sub | male | dw | us | foot print | ang no | customer | sheet 1 of 6 |
| A   | LS05-0101 | MPE | 2005-10-11 |       |     |      |    |    |            |        |          |              |
| B   | LS06-0208 | LGO | 2006-12-12 |       |     |      |    |    |            |        |          |              |
| C   | LS07-0273 | MPE | 2007/10/31 |       |     |      |    |    |            |        |          |              |
| D   | F09-0092  | LSA | 2009/09/16 |       |     |      |    |    |            |        |          |              |
|     |           |     |            |       |     |      |    |    |            |        |          |              |
|     |           |     |            |       |     |      |    |    |            |        |          |              |
|     |           |     |            |       |     |      |    |    |            |        |          |              |

PDM: Rev: D

STATUS: Released

Printed: Apr 28, 2015

A

B

C

D

E

F

A

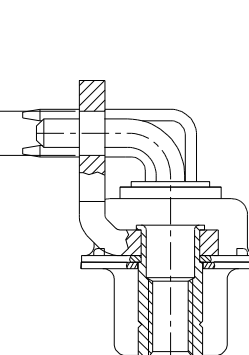
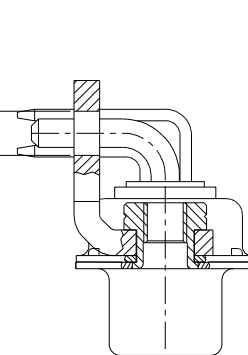
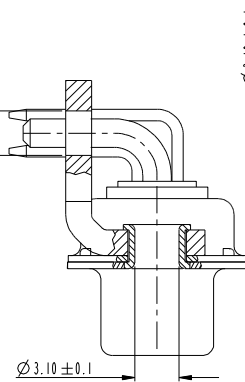
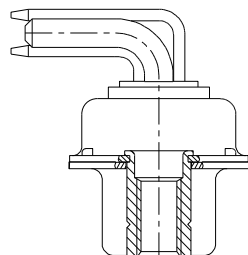
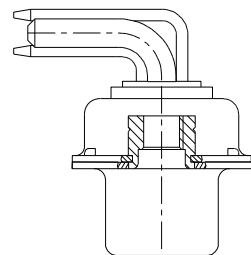
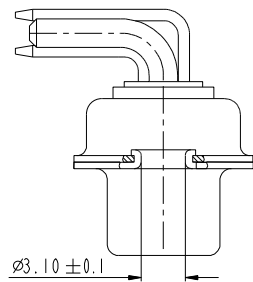
B

C

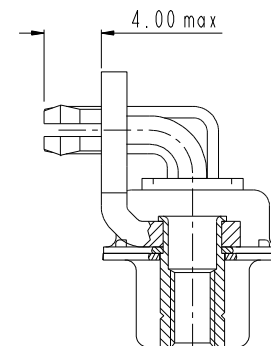
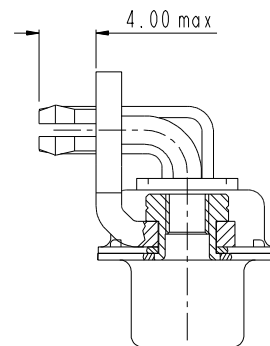
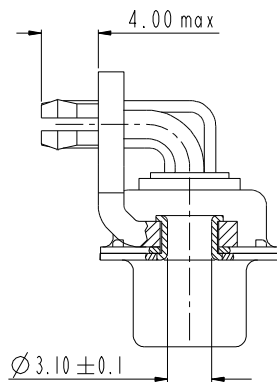
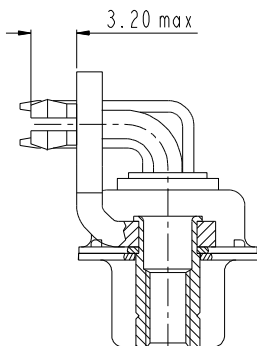
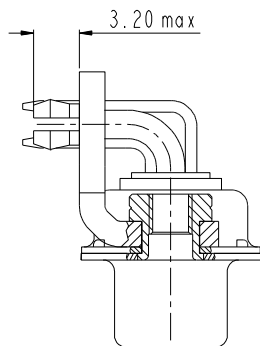
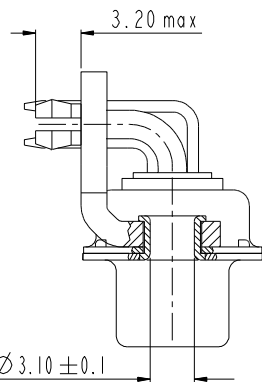
D

E

F



|                 |                      |                                                |                          |                         |                                                |                          |
|-----------------|----------------------|------------------------------------------------|--------------------------|-------------------------|------------------------------------------------|--------------------------|
| FRONT ACCESSORY | <b>Blank</b> Without | <b>L</b> insert M3<br><b>O</b> insert UNC 4.40 | <b>V</b> insert UNC 4.40 | <b>Blank</b> Without    | <b>L</b> insert M3<br><b>O</b> insert UNC 4.40 | <b>V</b> insert UNC 4.40 |
| PCB ACCESSORIES | <b>A</b> Without     | <b>A</b> Without                               | <b>A</b> Without         | <b>M</b> Metal brackets | <b>M</b> Metal brackets                        | <b>M</b> Metal bracket   |



|                 |                                                   |                                                   |                                                   |                                                   |                                                   |                                                   |
|-----------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|---------------------------------------------------|
| FRONT ACCESSORY | <b>Blank</b> Without                              | <b>L</b> insert M3<br><b>O</b> insert UNC 4.40    | <b>V</b> insert UNC 4.40                          | <b>Blank</b> Without                              | <b>L</b> insert M3<br><b>O</b> insert UNC 4.40    | <b>V</b> insert UNC 4.40                          |
| PCB ACCESSORIES | <b>G</b> Metal brackets + harpoons for PCB 1.60mm | <b>G</b> Metal brackets + harpoons for PCB 1.60mm | <b>G</b> Metal brackets + harpoons for PCB 1.60mm | <b>H</b> Metal brackets + harpoons for PCB 2.40mm | <b>H</b> Metal brackets + harpoons for PCB 2.40mm | <b>H</b> Metal brackets + harpoons for PCB 2.40mm |

SCALE: 4

|                    |          |                                       |                                   |                  |          |
|--------------------|----------|---------------------------------------|-----------------------------------|------------------|----------|
| www.fciconnect.com |          | surface<br>ISO 1302                   | tolerance std<br>ISO 406 ISO 1101 | projection<br>mm |          |
|                    |          | TOLERANCES UNLESS OTHERWISE SPECIFIED |                                   |                  |          |
| Dr                 | M PESSON | 2005-10-11                            | ANGULAR                           | size             | A2       |
| Eng                | P LEGARE | 2005-10-11                            | LINEAR                            | scale            | 2:1      |
| Chr                |          |                                       | 0° ±2°                            | ECN              | F09-0092 |
| Appr               |          |                                       | Product family                    | Spec ref         |          |

|     |             |                                 |        |               |      |   |
|-----|-------------|---------------------------------|--------|---------------|------|---|
| FCI | title       | SUB MALE DW US foot print       | eng no | C01-8639-2305 | Rev. | D |
|     | description | mixed power right angled solder |        |               |      |   |
|     | customer    |                                 |        |               |      |   |

| PART NUMBER     | AMPS | MATINGS/<br>UNMATINGS | FRONT<br>ACCESSORY    | PCB<br>ACCESSORIES               |
|-----------------|------|-----------------------|-----------------------|----------------------------------|
| D*xWxP700A30LF  | 30   | 200                   | without               | without                          |
| D*LxWxP700A30LF | 30   | 200                   | insert M3             | without                          |
| D*OxWxP700A30LF | 30   | 200                   | insert UNC 4.40       | without                          |
| D*VxWxP700A30LF | 30   | 200                   | female screw UNC 4.40 | without                          |
| D*xWxP700H30LF  | 30   | 200                   | without               | metal bracket+harpoon PCB 2.40mm |
| D*LxWxP700H30LF | 30   | 200                   | insert M3             | metal bracket+harpoon PCB 2.40mm |
| D*OxWxP700H30LF | 30   | 200                   | insert UNC 4.40       | metal bracket+harpoon PCB 2.40mm |
| D*VxWxP700H30LF | 30   | 200                   | female screw UNC 4.40 | metal bracket+harpoon PCB 2.40mm |
| D*xWxP700G30LF  | 30   | 200                   | without               | metal bracket+harpoon PCB 1.60mm |
| D*LxWxP700G30LF | 30   | 200                   | insert M3             | metal bracket+harpoon PCB 1.60mm |
| D*OxWxP700G30LF | 30   | 200                   | insert UNC 4.40       | metal bracket+harpoon PCB 1.60mm |
| D*VxWxP700G30LF | 30   | 200                   | female screw UNC 4.40 | metal bracket+harpoon PCB 1.60mm |
| D*xWxP700M30LF  | 30   | 200                   | without               | metal bracket                    |
| D*LxWxP700M30LF | 30   | 200                   | insert M3             | metal bracket                    |
| D*OxWxP700M30LF | 30   | 200                   | insert UNC 4.40       | metal bracket                    |
| D*VxWxP700M30LF | 30   | 200                   | female screw UNC 4.40 | metal bracket                    |

shell size \* LAYOUTS  
xWx

A 11W1  
A 7W2  
B 21W1  
B 17W2  
B 13W3  
C 25W3  
C 21WA4  
C 27W2

| PART NUMBER     | AMPS | MATINGS/<br>UNMATINGS | FRONT<br>ACCESSORY    | PCB<br>ACCESSORIES               |
|-----------------|------|-----------------------|-----------------------|----------------------------------|
| D*xWxP743A30LF  | 30   | 500                   | without               | without                          |
| D*LxWxP743A30LF | 30   | 500                   | insert M3             | without                          |
| D*OxWxP743A30LF | 30   | 500                   | insert UNC 4.40       | without                          |
| D*VxWxP743A30LF | 30   | 500                   | female screw UNC 4.40 | without                          |
| D*xWxP743H30LF  | 30   | 500                   | without               | metal bracket+harpoon PCB 2.40mm |
| D*LxWxP743H30LF | 30   | 500                   | insert M3             | metal bracket+harpoon PCB 2.40mm |
| D*OxWxP743H30LF | 30   | 500                   | insert UNC 4.40       | metal bracket+harpoon PCB 2.40mm |
| D*VxWxP743H30LF | 30   | 500                   | female screw UNC 4.40 | metal bracket+harpoon PCB 2.40mm |
| D*xWxP743G30LF  | 30   | 500                   | without               | metal bracket+harpoon PCB 1.60mm |
| D*LxWxP743G30LF | 30   | 500                   | insert M3             | metal bracket+harpoon PCB 1.60mm |
| D*OxWxP743G30LF | 30   | 500                   | insert UNC 4.40       | metal bracket+harpoon PCB 1.60mm |
| D*VxWxP543G30LF | 30   | 500                   | female screw UNC 4.40 | metal bracket+harpoon PCB 1.60mm |
| D*xWxP743M30LF  | 30   | 500                   | without               | metal bracket                    |
| D*LxWxP743M30LF | 30   | 500                   | insert M3             | metal bracket                    |
| D*OxWxP743M30LF | 30   | 500                   | insert UNC 4.40       | metal bracket                    |
| D*VxWxP743M30LF | 30   | 500                   | female screw UNC 4.40 | metal bracket                    |

|                    |          |                                                              |                                   |                  |
|--------------------|----------|--------------------------------------------------------------|-----------------------------------|------------------|
| www.fciconnect.com |          | surface<br>ISO 1302                                          | tolerance std<br>ISO 406 ISO 1101 | projection<br>mm |
|                    |          | TOLERANCES UNLESS OTHERWISE SPECIFIED                        |                                   |                  |
| Dr                 | M PESSON | 2005-10-11                                                   | ANGULAR                           | size A2          |
| Eng                | P LEGARE | 2005-10-11                                                   | LINEAR                            | Scale 2:1        |
| Chr                |          |                                                              | 0° ±2°                            | ECN F09-0092     |
| Appr               |          |                                                              | Product family                    | Spec ref         |
| FCI                |          | SUB MALE DW US foot print<br>mixed power right angled solder |                                   | Rev. D           |
| drawing no         |          | C01-8639-2305                                                |                                   | Sheet 3 of 6     |
| CUSTOMER           |          | Printed: Apr 28, 2015                                        |                                   |                  |

A

B

C

D

E

F

1

2

3

4

5

6

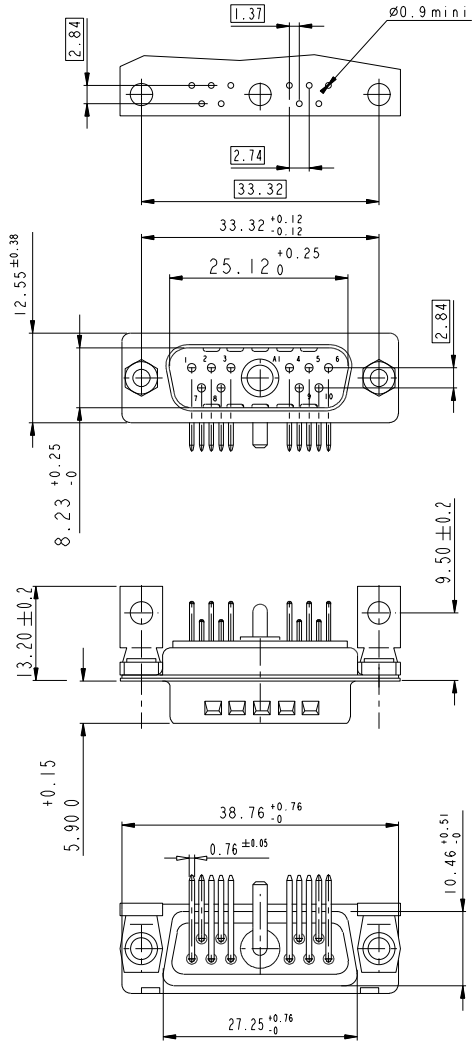
7

8

11W1

# LAYOUT AND CONNECTOR DIMENSIONS

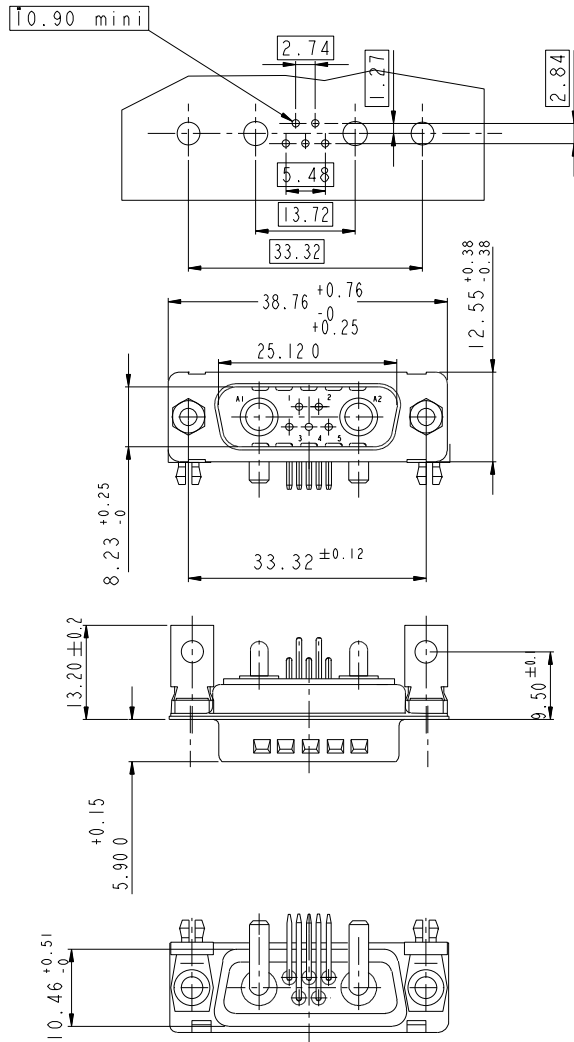
For PCB hole diameters see table 1 sheet 1



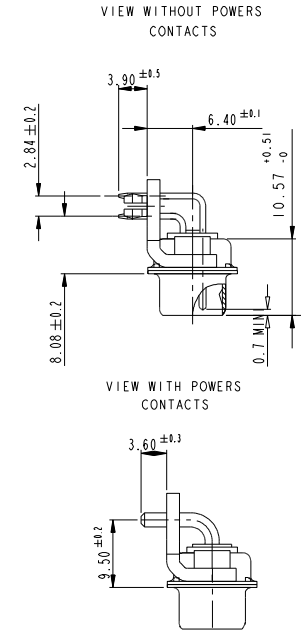
7W2

# LAYOUT AND CONNECTOR DIMENSIONS

For PCB hole diameters see table 1 sheet 1



# SIDE VIEW FOR ALL LAYOUTS



|                    |          |                                       |                                   |                  |
|--------------------|----------|---------------------------------------|-----------------------------------|------------------|
| www.fciconnect.com |          | surface<br>ISO 1302                   | tolerance std<br>ISO 406 ISO 1101 | projection<br>mm |
|                    |          | TOLERANCES UNLESS OTHERWISE SPECIFIED |                                   |                  |
| Dr                 | M PESSON | 2005-10-11                            | ANGULAR                           | size A2          |
| Eng                | P LEGARE | 2005-10-11                            | LINEAR                            | Scale 2:1        |
| Chr                |          |                                       | 0° ±2°                            | ECN F09-0092     |
| Appr               |          |                                       | Product family                    | Spec ref         |

|     |  |                                                                       |                          |           |
|-----|--|-----------------------------------------------------------------------|--------------------------|-----------|
| FCI |  | title<br>SUB MALE DW US foot print<br>mixed power right angled solder | part no<br>C01-8639-2305 | Rev.<br>D |
|-----|--|-----------------------------------------------------------------------|--------------------------|-----------|

1

2

3

4

5

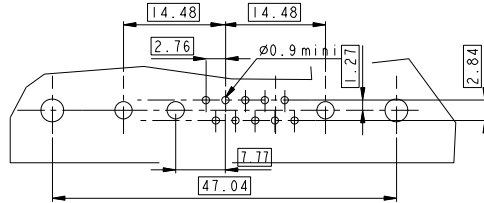
6

7

8

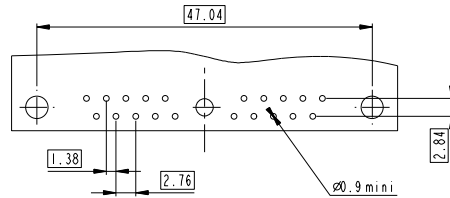
13W3

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see table 1 sheet 1



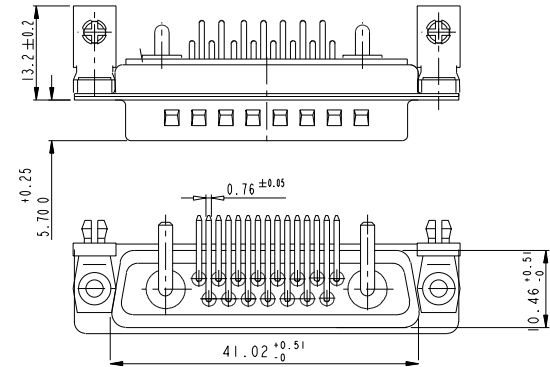
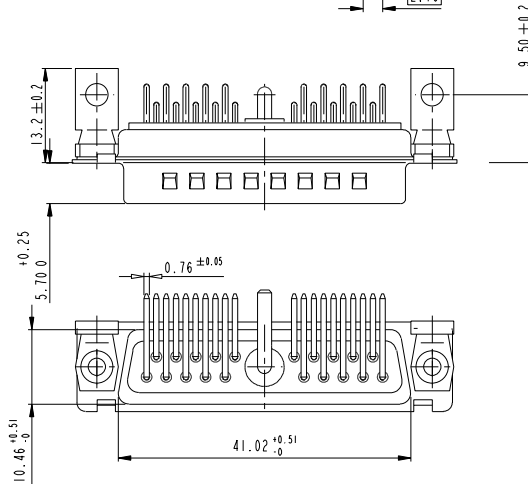
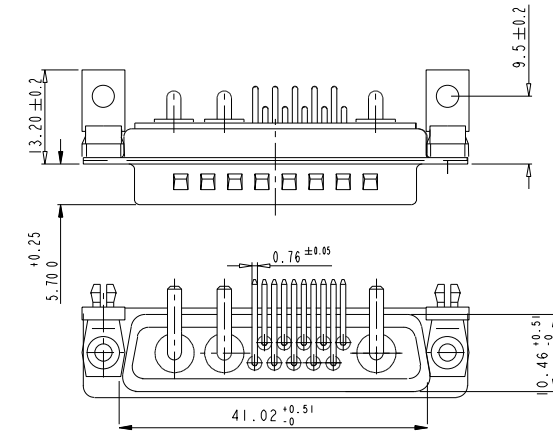
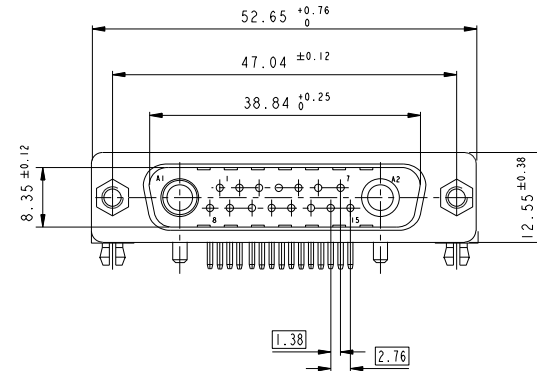
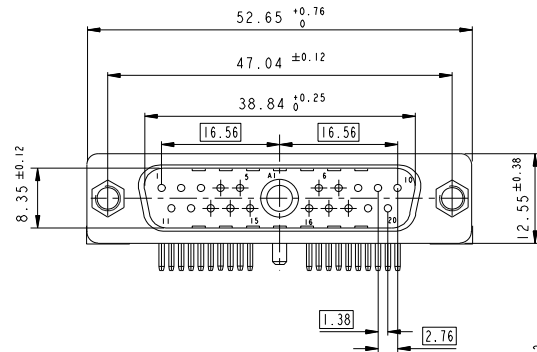
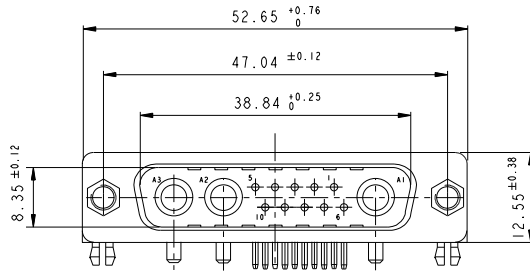
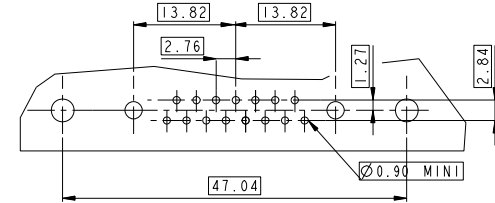
21W1

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see table 1 sheet 1



17W2

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see table 1 sheet 1

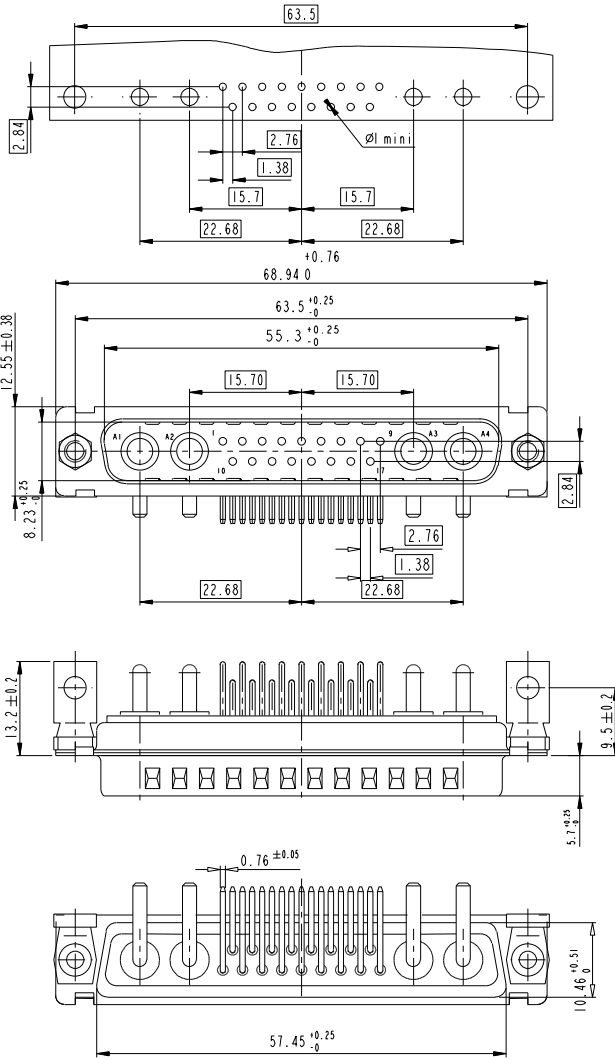


|                                       |                     |                     |                                   |                  |          |
|---------------------------------------|---------------------|---------------------|-----------------------------------|------------------|----------|
| www.fciconnect.com                    |                     | surface<br>ISO 1302 | tolerance std<br>ISO 406 ISO 1101 | projection<br>mm | mm       |
| TOLERANCES UNLESS OTHERWISE SPECIFIED |                     | 0.X                 | ±0.3                              | size             | A2       |
| Dr                                    | M PESSON 2005-10-11 | ANGULAR             | ±0.1                              | Scale            | 2:1      |
| Eng                                   | P LEGARE 2005-10-11 | LINEAR              | 0.XXX                             | ECN              | F09-0092 |
| Chr                                   |                     | 0° ±2°              | ±0.05                             | Spec ref         |          |
| Appr                                  |                     | Product family      |                                   |                  |          |

|     |             |                                 |        |               |      |
|-----|-------------|---------------------------------|--------|---------------|------|
| FCI | title       | SUB MALE DW US foot print       | ang no | C01-8639-2305 | Rev. |
|     | description | mixed power right angled solder |        |               | D    |

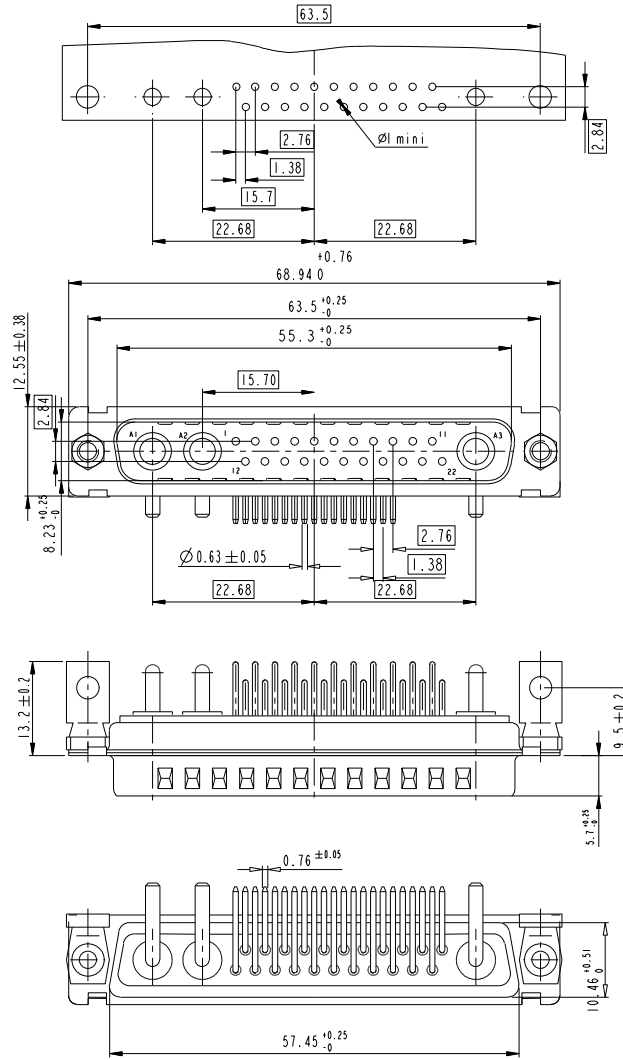
21WA4

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see table 1 sheet 1



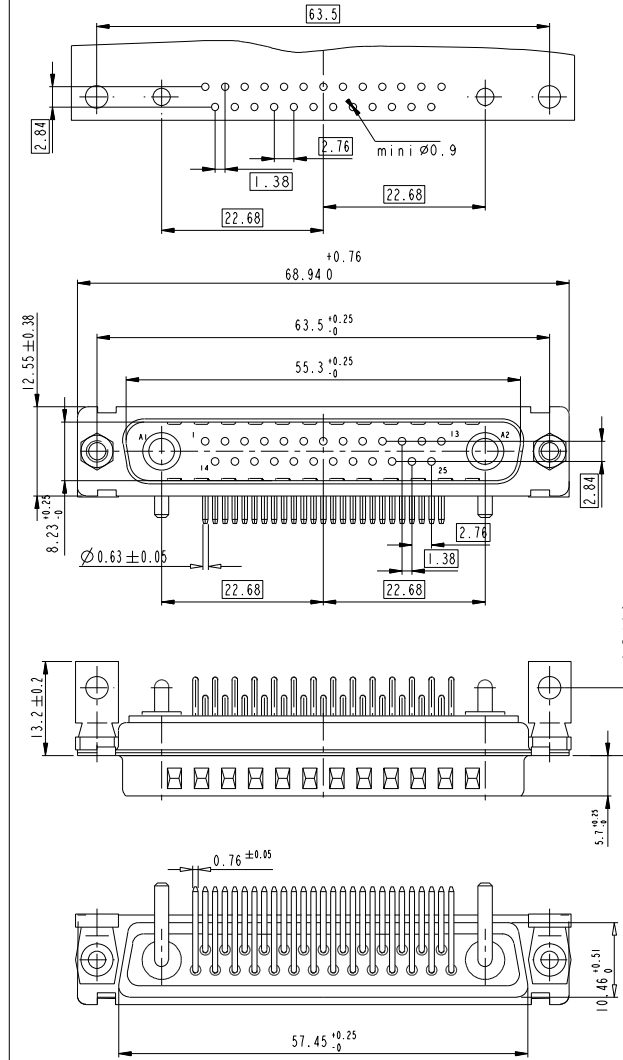
25W3

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see table 1 sheet 1



27W2

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see table 1 sheet 1



|                    |          |                                       |                                   |                  |              |
|--------------------|----------|---------------------------------------|-----------------------------------|------------------|--------------|
| www.fciconnect.com |          | surface<br>ISO 1302                   | tolerance std<br>ISO 406 ISO 1101 | projection<br>mm | mm           |
|                    |          | TOLERANCES UNLESS OTHERWISE SPECIFIED |                                   | size<br>A2       | Scale<br>2:1 |
| Dr                 | M PESSON | 2005-10-11                            | ANGULAR                           | LINEAR           | ECN F09-0092 |
| Eng                | P LEGARE | 2005-10-11                            | 0° ±2°                            | 0° ±2°           | Spec ref     |
| Chr                |          |                                       | Product family                    |                  |              |
| Appr               |          |                                       |                                   |                  |              |

|     |                                                                       |                          |           |
|-----|-----------------------------------------------------------------------|--------------------------|-----------|
| FCI | title<br>SUB MALE DW US foot print<br>mixed power right angled solder | part no<br>C01-8639-2305 | Rev.<br>D |
|-----|-----------------------------------------------------------------------|--------------------------|-----------|