

## REFERENCE SPECIFICATIONS

-NFC 93425 (in compliance with HE 507)

## PHYSICAL CHARACTERISTICS

-INSULATOR MATERIAL: THERMOPLASTIC ,UL94V0

-CONTACT MATERIAL: BRASS

-ACCESSORIES: BRASS

-SHELLS: STEEL

## ELECTRICAL CHARACTERISTICS

-NOMINAL CURRENT: 30A

-CONTACT RESISTANCE: <= 7.3 m ohms

-CONTACT/CONTACT : >=1000 V

-CONTACT/GROUND : >=1200 V

-INSULATION RESISTANCE: >=5000 MOhms

## ENVIRONMENTAL CHARACTERISTICS

- CLIMATIC CATEGORY: 55/125/21

TEMPERATURE RANGE -55°C TO +125°C

DAMP HEAT STEADY STATE 21 DAYS

SALT SPRAY 24 HOURS

## MECHANICAL CHARACTERISTICS

- 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:
  - Ni 1.27µm+Sn 2.5 to 7.5µm(pure bright)
- Active area plating spec:
  - 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

# DBL5W5S700G30LF

Shell size: **E 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

**S** :Socket

Termination type

**7** Right angle/USA

Plating

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

PCB accessories definition  
see sheet 2

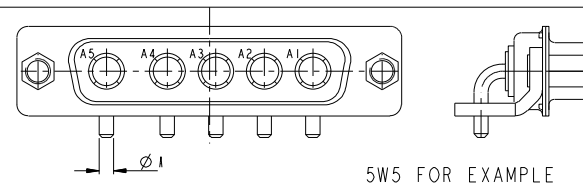
**A** :without accessory  
**H** :Metal brackets+harpoons for PCB 2.40mm  
**G** :Metal brackets+harpoons for PCB 1.60mm  
**M** :Metal brackets

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        |
|-------------------|--------------|--------------------|--------------------|
| 30 A              | Ø2.00        | Ø2.40              | Ø3.10              |
| Max current power | ØA +0.1<br>0 | PCB HOLE<br>+/-0.1 | PCB HOLE<br>+/-0.1 |



|                    |          |                                       |                  |            |          |
|--------------------|----------|---------------------------------------|------------------|------------|----------|
| www.fciconnect.com |          | surface                               | tolerance std    | projection | mm       |
|                    |          | ISO 1302                              | ISO 406 ISO 1101 | mm         |          |
|                    |          | 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 | female dw             | us foot print | customer | sheet 1 of 5 |
| A   | LS05-0113 | MPE | 2005-10-11 |                                |     |                       |               |          |              |
| B   | LS06-0208 | LGO | 2006-12-13 |                                |     |                       |               |          |              |
| C   | LS07-0085 | MPE | 2007/03/21 |                                |     |                       |               |          |              |
| D   | LS07-0213 | MPE | 2007/11/05 |                                |     |                       |               |          |              |
| E   | F09-0092  | LSA | 2009/09/16 |                                |     |                       |               |          |              |
|     |           |     |            | full power right angled solder |     | C01-8639-2309         |               | Rev. E   |              |
|     |           |     |            | CUSTOMER                       |     | Printed: Apr 28, 2015 |               | Released |              |

PDM-REV-E

STATUS Released

Printed: Apr 28, 2015

A

B

C

D

E

F

A

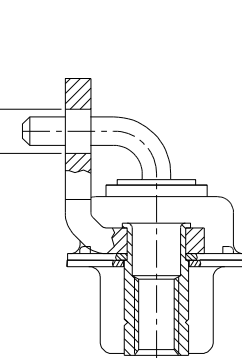
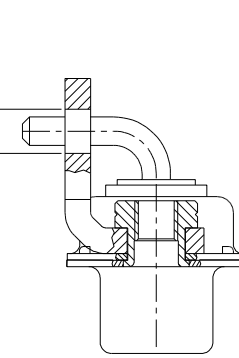
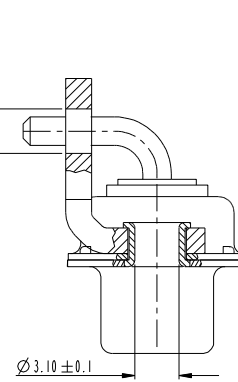
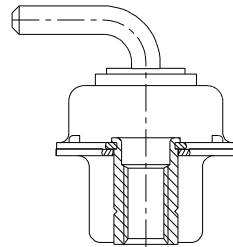
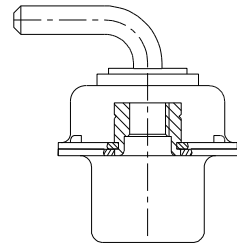
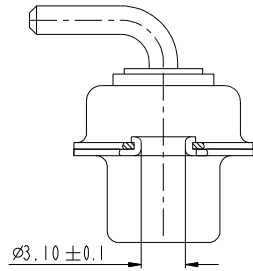
B

C

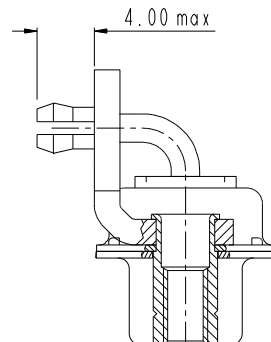
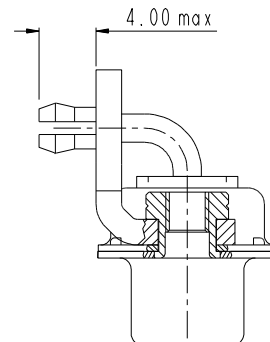
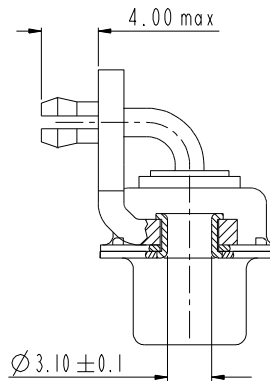
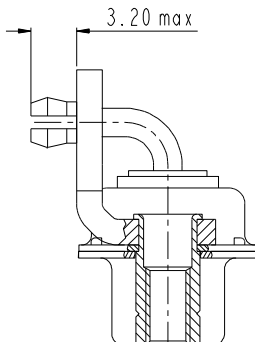
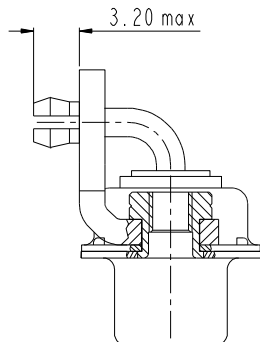
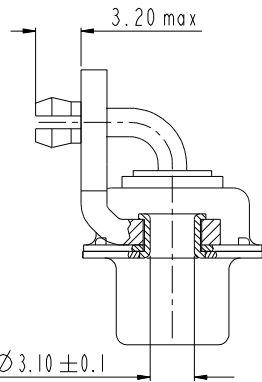
D

E

F



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



|                 |                                            |                                            |                                            |                                            |                                            |                                            |
|-----------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| FRONT ACCESSORY | Blank Without                              | L insert M3<br>O insert UNC 4.40           | V insert UNC 4.40                          | Blank Without                              | L insert M3<br>O insert UNC 4.40           | V insert UNC 4.40                          |
| PCB ACCESSORIES | G Metal brackets + harpoons for PCB 1.60mm | G Metal brackets + harpoons for PCB 1.60mm | G Metal brackets + harpoons for PCB 1.60mm | H Metal brackets + harpoons for PCB 2.40mm | H Metal brackets + harpoons for PCB 2.40mm | H 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 |          | size                |                                   | Scale            |
| Dr                                    | M PESSON | 2005-10-11          | ANGULAR                           | 2:1              |
| Eng                                   | P LEGARE | 2005-10-11          | LINEAR                            |                  |
| Chr                                   |          |                     | 0° ± 2°                           | ECN F09-0092     |
| Appr                                  |          |                     | Product family                    | Spec ref         |

|     |             |                                |        |               |      |   |
|-----|-------------|--------------------------------|--------|---------------|------|---|
| FCI | title       | SUB FEMALE DW US foot print    | eng no | C01-8639-2309 | Rev. | E |
|     | description | full power right angled solder |        |               |      |   |

| PART NUMBER     | AMPS | MATINGS/<br>UNMATINGS | FRONT<br>ACCESSORY    | PCB<br>ACCESSORIES               |
|-----------------|------|-----------------------|-----------------------|----------------------------------|
| D*xWxS700A30LF  | 30   | 200                   | without               | without                          |
| D*LxWxS700A30LF | 30   | 200                   | insert M3             | without                          |
| D*OxWxS700A30LF | 30   | 200                   | insert UNC 4.40       | without                          |
| D*VxWxS700A30LF | 30   | 200                   | female screw UNC 4.40 | without                          |
| D*xWxS700H30LF  | 30   | 200                   | without               | metal bracket+harpoon PCB 2.40mm |
| D*LxWxS700H30LF | 30   | 200                   | insert M3             | metal bracket+harpoon PCB 2.40mm |
| D*OxWxS700H30LF | 30   | 200                   | insert UNC 4.40       | metal bracket+harpoon PCB 2.40mm |
| D*VxWxS700H30LF | 30   | 200                   | female screw UNC 4.40 | metal bracket+harpoon PCB 2.40mm |
| D*xWxS700G30LF  | 30   | 200                   | without               | metal bracket+harpoon PCB 1.60mm |
| D*LxWxS700G30LF | 30   | 200                   | insert M3             | metal bracket+harpoon PCB 1.60mm |
| D*OxWxS700G30LF | 30   | 200                   | insert UNC 4.40       | metal bracket+harpoon PCB 1.60mm |
| D*VxWxS700G30LF | 30   | 200                   | female screw UNC 4.40 | metal bracket+harpoon PCB 1.60mm |
| D*xWxS700M30LF  | 30   | 200                   | without               | metal bracket                    |
| D*LxWxS700M30LF | 30   | 200                   | insert M3             | metal bracket                    |
| D*OxWxS700M30LF | 30   | 200                   | insert UNC 4.40       | metal bracket                    |
| D*VxWxS700M30LF | 30   | 200                   | female screw UNC 4.40 | metal bracket                    |

shell size  
#

E  
A  
A  
B  
C

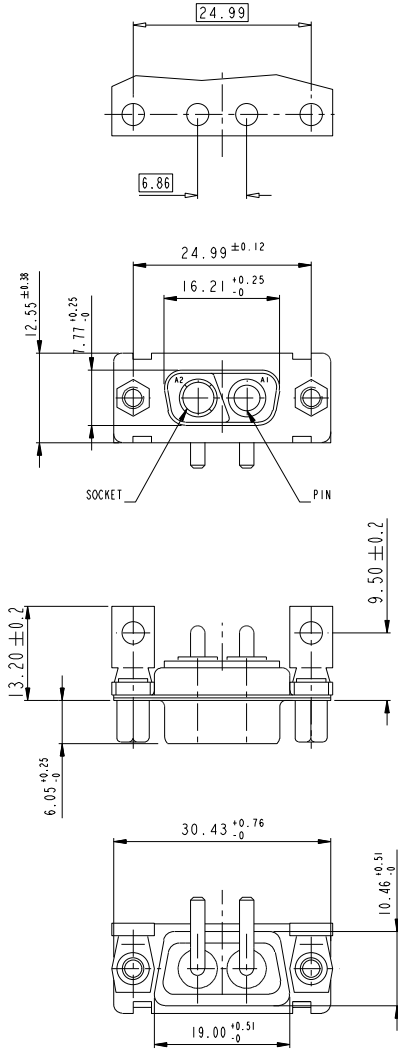
LAYOUTS  
xWx

2V2  
3V3  
3W3  
5W5  
8W8

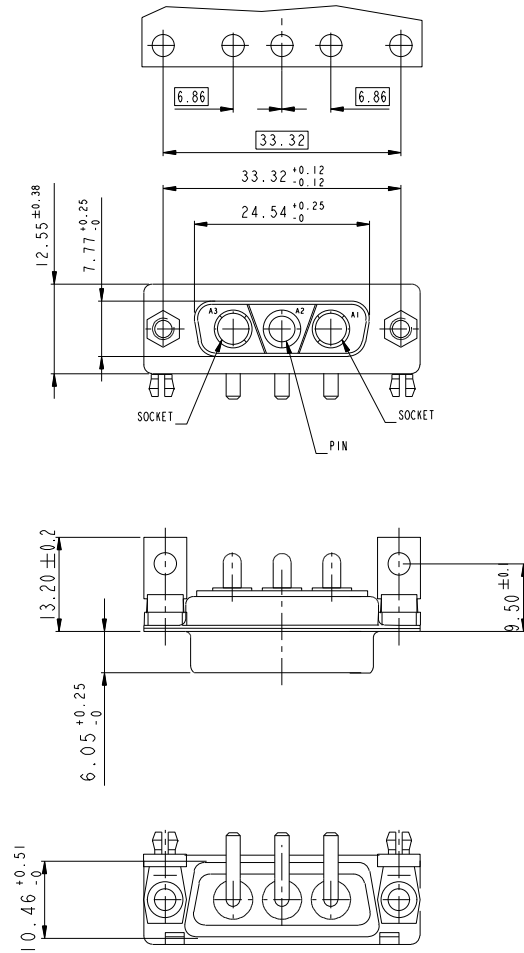
| PART NUMBER     | AMPS | MATINGS/<br>UNMATINGS | FRONT<br>ACCESSORY    | PCB<br>ACCESSORIES               |
|-----------------|------|-----------------------|-----------------------|----------------------------------|
| D*xWxS743A30LF  | 30   | 500                   | without               | without                          |
| D*LxWxS743A30LF | 30   | 500                   | insert M3             | without                          |
| D*OxWxS743A30LF | 30   | 500                   | insert UNC 4.40       | without                          |
| D*VxWxS743A30LF | 30   | 500                   | female screw UNC 4.40 | without                          |
| D*xWxS743H30LF  | 30   | 500                   | without               | metal bracket+harpoon PCB 2.40mm |
| D*LxWxS743H30LF | 30   | 500                   | insert M3             | metal bracket+harpoon PCB 2.40mm |
| D*OxWxS743H30LF | 30   | 500                   | insert UNC 4.40       | metal bracket+harpoon PCB 2.40mm |
| D*VxWxS743H30LF | 30   | 500                   | female screw UNC 4.40 | metal bracket+harpoon PCB 2.40mm |
| D*xWxS743G30LF  | 30   | 500                   | without               | metal bracket+harpoon PCB 1.60mm |
| D*LxWxS743G30LF | 30   | 500                   | insert M3             | metal bracket+harpoon PCB 1.60mm |
| D*OxWxS743G30LF | 30   | 500                   | insert UNC 4.40       | metal bracket+harpoon PCB 1.60mm |
| D*VxWxS743G30LF | 30   | 500                   | female screw UNC 4.40 | metal bracket+harpoon PCB 1.60mm |
| D*xWxS743M30LF  | 30   | 500                   | without               | metal bracket                    |
| D*LxWxS743M30LF | 30   | 500                   | insert M3             | metal bracket                    |
| D*OxWxS743M30LF | 30   | 500                   | insert UNC 4.40       | metal bracket                    |
| D*VxWxS743M30LF | 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 FEMALE DW US foot print<br>full power right angled solder |                                   | Rev. E           |
| drawing no         |          | C01-8639-2309                                                 |                                   | Sheet 3 of 5     |
| CUSTOMER           |          | Printed: Apr 28, 2015                                         |                                   |                  |

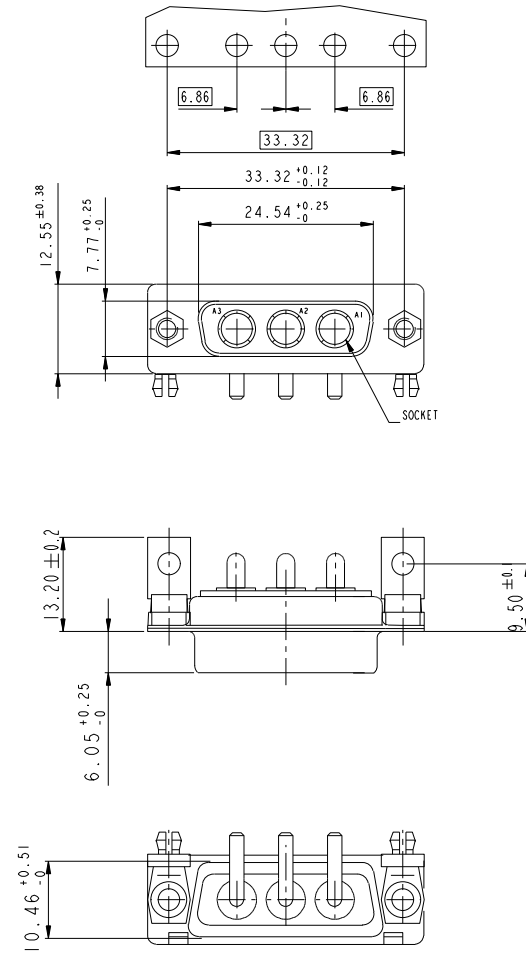
2V2

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

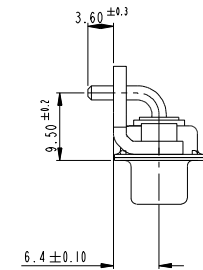
3V3

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

3W3

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 | mm           |
|                    |          | TOLERANCES UNLESS OTHERWISE SPECIFIED |                                   |                  |              |
| Dr                 | M PESSON | 2005-10-11                            | ANGULAR                           | 0.X ± 0.3        | size A2      |
| Eng                | P LEGARE | 2005-10-11                            | LINEAR                            | 0.XX ± 0.1       | Scale 2:1    |
| Chr                |          |                                       | 0° ± 2°                           | 0.XXX ± 0.05     | ECN F09-0092 |
| Appr               |          |                                       | Product family                    | Spec ref         |              |

|     |                                                                     |                      |        |
|-----|---------------------------------------------------------------------|----------------------|--------|
| FCI | title SUB FEMALE DW US foot print<br>full power right angled solder | eng no C01-8639-2309 | Rev. E |
|-----|---------------------------------------------------------------------|----------------------|--------|

A

B

C

D

E

F

A

B

C

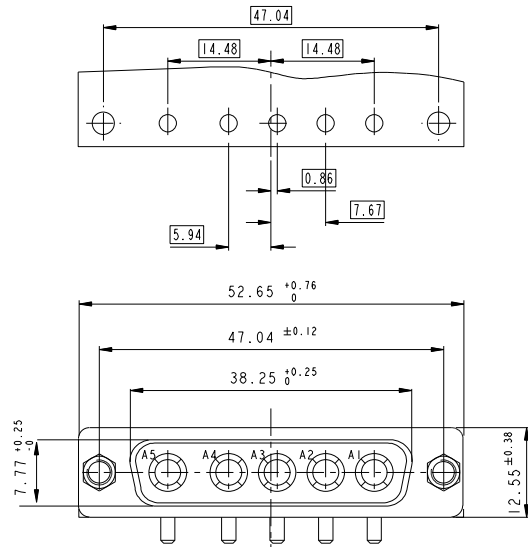
D

E

F

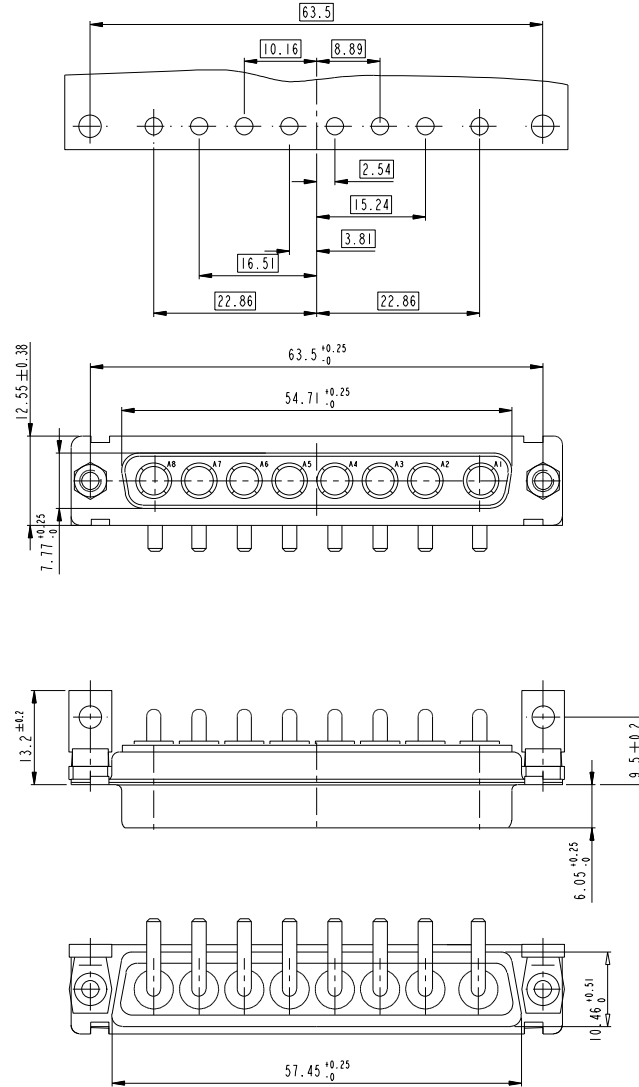
5W5

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see Table I sheet I



8W8

LAYOUT AND CONNECTOR DIMENSIONS  
For PCB hole diameters see Table I sheet I



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

|                                                                        |  |                          |           |
|------------------------------------------------------------------------|--|--------------------------|-----------|
| Title<br>SUB FEMALE DW US foot print<br>full power right angled solder |  | Part no<br>C01-8639-2309 | Rev.<br>E |
|------------------------------------------------------------------------|--|--------------------------|-----------|