

# SD

D'Sub connectors - Stamped and Formed Contacts

## STRAIGHT PCB TERMINATION STANDARD and HIGH DENSITY



### Specifications

- Connectors according to: MIL C24308 - NFC 93425-HE5
- UL File: E149426

| Materials and Platings |                                                                                                                         |
|------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <b>Shells</b>          | Steel, tin over nickel plating                                                                                          |
| <b>Insulator</b>       | Glass-filled thermoplastic, UL 94V- 0                                                                                   |
| <b>Contacts</b>        | Brass, selected gold in mating area;<br>2.54µm (100 µ") min.tin on<br>termination area over 1.27µm<br>(50µ") min.nickel |
| <b>Rear insert</b>     | Brass, 2.54µm (100µ") min.nickel plated                                                                                 |
| <b>Boardlock</b>       | Brass, 2.54µm (100µ") min.nickel plated                                                                                 |
| <b>Screwlock</b>       | Brass, 2.54µm (100µ") min.nickel plated<br>(removable)                                                                  |

| Electrical Data              |                                        |
|------------------------------|----------------------------------------|
| <b>Current rating</b>        | Standard Density:5A<br>High Density:3A |
| <b>Voltage rating</b>        | 250V AC/ rms 50Hz                      |
| <b>Withstanding voltage</b>  | 1000V AC/rms 50Hz for one minute       |
| <b>Insulation resistance</b> | 1000MΩ at 500V DC                      |
| <b>Contact resistance</b>    | 20mΩ max                               |

| Climatic Data                |                 |
|------------------------------|-----------------|
| <b>Operating temperature</b> | -55°C to +125°C |
| <b>Salt spray</b>            | 24 hours        |

| Mechanical Data                        |    |                                                                                                                        |              |               |              |
|----------------------------------------|----|------------------------------------------------------------------------------------------------------------------------|--------------|---------------|--------------|
| <b>Single contact insertion force</b>  |    | 0.54kg (1.19lb) max                                                                                                    |              |               |              |
| <b>Single contact withdrawal force</b> |    | SD : 0.06kg (0.13lb) min<br>HD : 0.02kg (0.044lb) min                                                                  |              |               |              |
| <b>Mating and unmating force</b>       |    |                                                                                                                        |              |               |              |
| Unit: kg ( lb)                         |    |                                                                                                                        |              |               |              |
| No. of Cts                             |    | SD                                                                                                                     |              | HD            |              |
| SD                                     | HD | Mate (max)                                                                                                             | Unmate (min) | Mate (max)    | Unmate (min) |
| 9                                      | 15 | 3.05 (6.74)                                                                                                            | 0.36 (0.79)  | 3.81 (8.42)   | 0.52 (1.14)  |
| 15                                     | 26 | 5.09 (11.24)                                                                                                           | 0.46 (1.01)  | 5.95 (13.16)  | 1.05 (2.32)  |
| 25                                     | 44 | 8.44 (18.66)                                                                                                           | 0.81 (1.8)   | 9.26 (20.46)  | 1.37 (3.02)  |
| 37                                     | 62 | 12.51 (27.65)                                                                                                          | 1.1 (2.47)   | 13.48 (29.78) | 1.76 (3.88)  |
| 50                                     | 78 | 14.65 (32.38)                                                                                                          | 1.6 (3.56)   | 15.82 (34.96) | 2.02 (4.46)  |
| <b>Standard plating thickness</b>      |    | <ul style="list-style-type: none"><li>• Gold flash</li><li>• 0.4µm (15µ") Gold</li><li>• 0.76 µm (30µ") Gold</li></ul> |              |               |              |

DESCRIPTION

The Amphenol SD series features precision formed contacts, and insulator with closed entry contacts cavities. This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements.

*Economical  
straight PCB  
mount connectors*

APPLICATIONS

- Industrial
- Telecom
- Any industry standard I / O connections

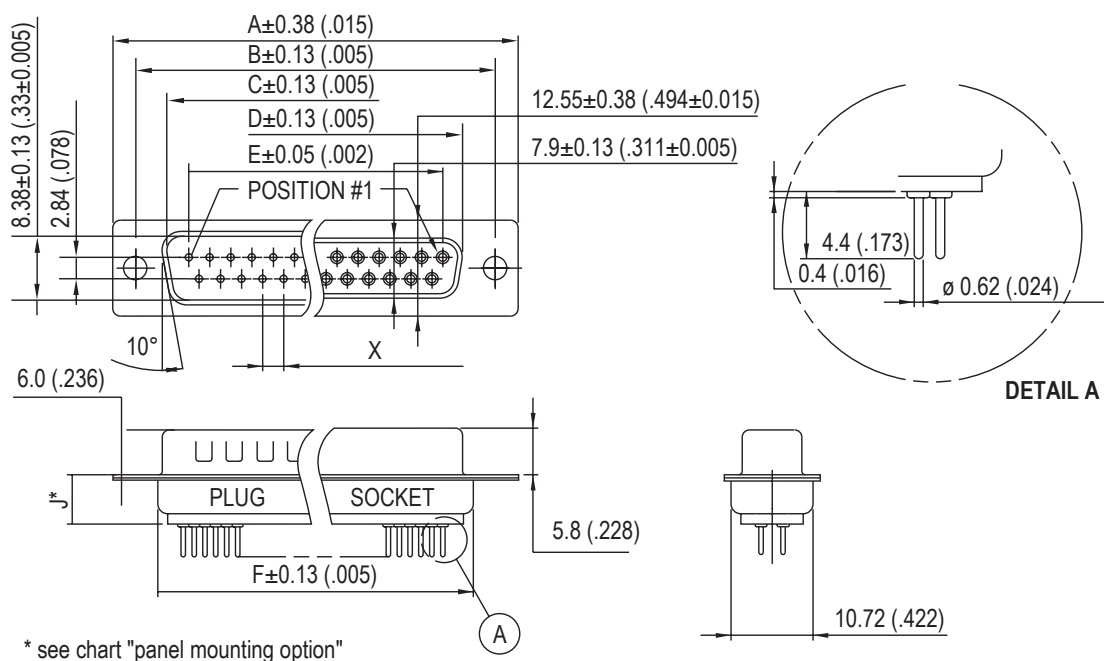


Amphenol

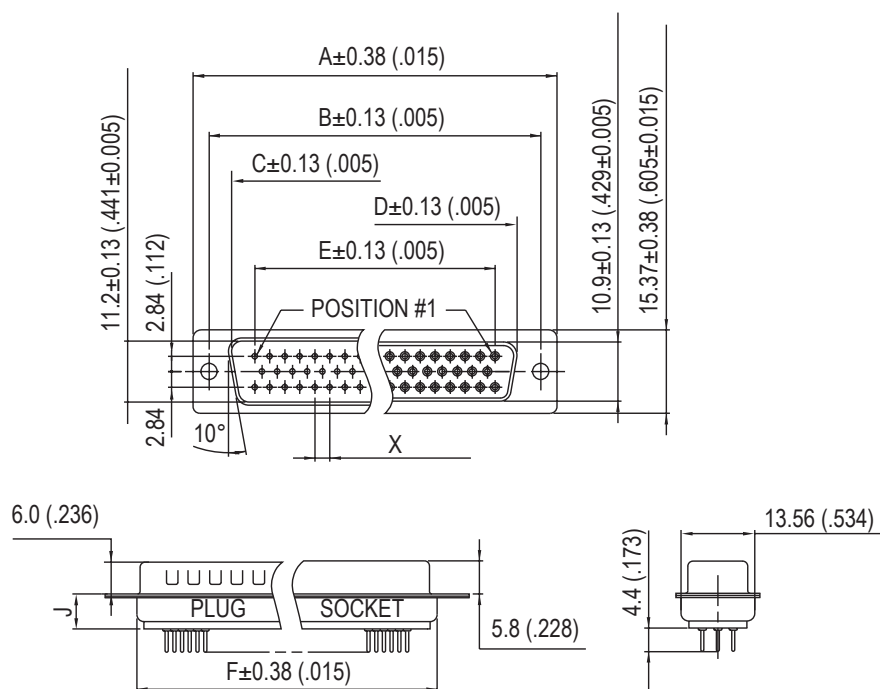
SD / E6

CHARACTERISTICS

## Standard Density

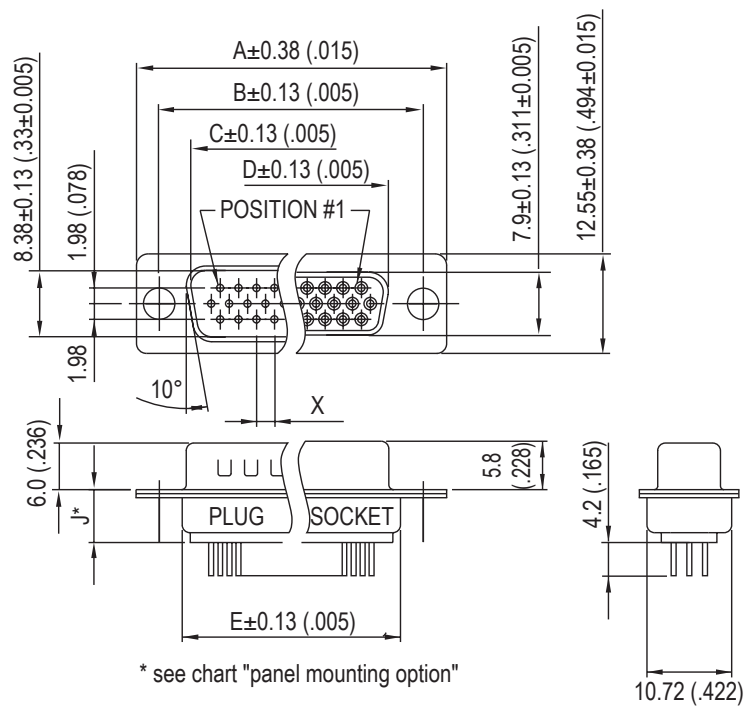


| Nb OF CONTACTS | DIMENSIONS mm (inch) |              |              |              |              |              |             |
|----------------|----------------------|--------------|--------------|--------------|--------------|--------------|-------------|
|                | A                    | B            | C            | D            | E            | F            | X           |
| 9              | 30.84 (1.21)         | 24.99 (.98)  | 16.92 (.67)  | 16.24 (.64)  | 11.09 (.44)  | 19.28 (.76)  | 2.77 (.109) |
| 15             | 39.24 (1.54)         | 33.32 (1.31) | 24.7 (.972)  | 24.56 (.97)  | 19.39 (.76)  | 27.51 (1.08) | 2.77 (.109) |
| 25             | 53.04 (2.09)         | 47.04 (1.85) | 38.96 (1.53) | 38.38 (1.51) | 33.24 (1.31) | 41.30 (1.63) | 2.77 (.109) |
| 37             | 69.32 (2.73)         | 63.50 (2.50) | 55.42 (2.18) | 54.76 (2.16) | 49.86 (1.96) | 57.71 (2.27) | 2.77 (.109) |
| 50             | 67 (2.64)            | 61.11 (2.41) | 52.86 (2.08) | 52.34 (2.06) | 44.32 (1.75) | 55.3 (2.18)  | 2.77 (.109) |

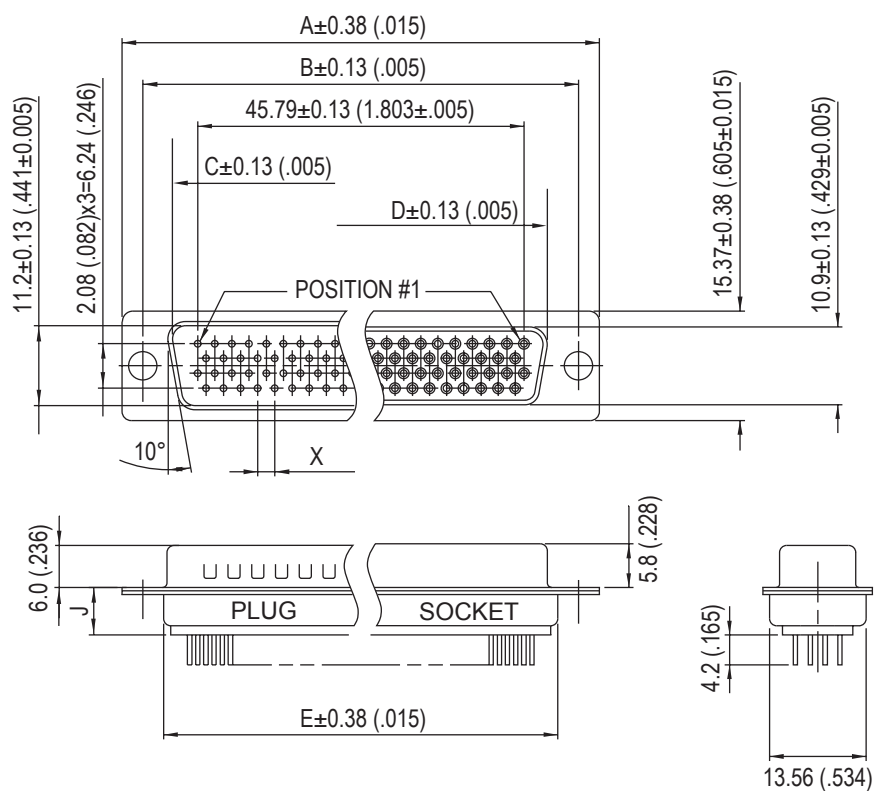


50 CONTACTS

## High Density



| Nb OF CONTACTS | DIMENSIONS mm (inch) |              |              |              |              |             |
|----------------|----------------------|--------------|--------------|--------------|--------------|-------------|
|                | A                    | B            | C            | D            | E            | X           |
| 15             | 30.84 (1.21)         | 24.99 (.98)  | 16.92 (.67)  | 16.24 (.64)  | 19.28 (.76)  | 2.29 (.090) |
| 26             | 39.24 (1.54)         | 33.32 (1.31) | 24.7 (.972)  | 24.56 (.97)  | 27.51 (1.08) | 2.29 (.090) |
| 44             | 53.04 (2.09)         | 47.04 (1.85) | 38.96 (1.53) | 38.38 (1.51) | 41.30 (1.63) | 2.29 (.090) |
| 62             | 69.32 (2.73)         | 63.50 (2.50) | 55.42 (2.18) | 54.76 (2.16) | 57.71 (2.27) | 2.41 (.095) |
| 78             | 67 (2.64)            | 61.11 (2.41) | 52.86 (2.08) | 52.34 (2.06) | 55.3 (2.18)  | 2.41 (.095) |



## Panel mounting option



**H + VF or G + VFM**  
Front Female Screwlock



**H or G**  
Threaded Rear Insert



**4F or 3F**  
Fixed Front Screwlock



**H or G + RM5**  
Standoff + Boardlock

|   | RM5<br>RM8 | RM5G<br>RM8G |
|---|------------|--------------|
| X | 6.0(.236)  | 12.7(.500)   |
| Y | 4.2(.165)  | 3.2(.126)    |
| J | 6.2(.244)  | 10.1(.397)   |



**H or G + RM8**  
Front Screwlock, Standoff + Boardlock

Examples: L 717 SD E H 09 P OL2 RM5 C309  
L 77 SD E 09 S OL2 4F

## How to order

**L** ... **OL2** ... **C309**

RoHS Compliant

|              |                                                                          |
|--------------|--------------------------------------------------------------------------|
| Gold flash   | 77: tinned shell for receptable<br>717: tinned shell + dimples for plug  |
| 0.4μm (15μ") | 177: tinned shell for receptable<br>777: tinned shell + dimples for plug |

**Series:**  
SD = Standard density  
HD = High density

| Shell size: | SD | HD |
|-------------|----|----|
| E =         | 9  | 15 |
| A =         | 15 | 26 |
| B =         | 25 | 44 |
| C =         | 37 | 62 |
| D =         | 50 | 78 |

**Rear mounting option:**  
H = 4-40 rear insert  
G = M3 rear insert  
H or G required with VF, VFM  
RM5 or RM8

**Plating option:**  
valid only for 0.76μm (30μ")  
part numbers to be written as follow:  
or 77.....C309  
717.....C309

**Front mounting option:**  
no digit = 3.05mm rivet  
RM5 = Threaded standoff + boardlock  
RM8 = Front screwlock, standoff + boardlock  
VF = Screwlock 4-40  
VFM = Screwlock M3  
4F = Fixed screwlock 4-40  
3F = Fixed screwlock M3

**Termination:**  
Straight, for PCB mount

**Contact type:**  
P = Plug  
S = Socket

**Configuration:**  
09,15,25,37,50 = SD  
15,26,44,62,78 = HD

**For special request, please consult factory**

**Do not hesitate to contact us for further information**

# Amphenol

### Amphenol IT & Communication Products

Block A3/A4, The 4th Industrial District of  
Industrial Headquarters, Dong Keng Road  
Gong Ming Town, Shen Zhen China  
Fax: +86(0)755 2754 9955

#### Technical Support

Tel: +86(0)755 2717 7945  
Info-dsub@amphenol.com.cn  
http://www.dsubconnector.com