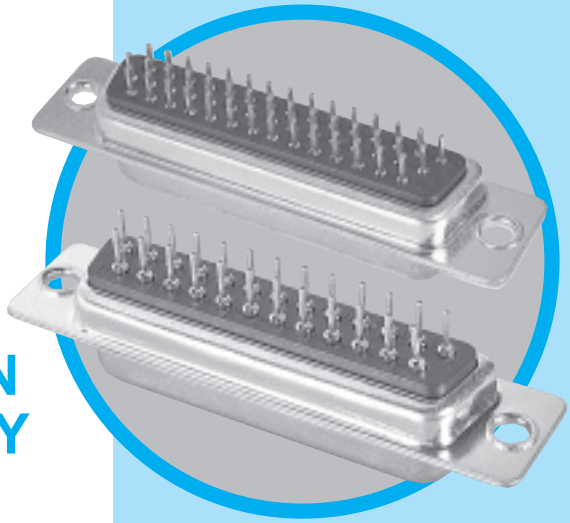
# SD

**D'Sub connectors - Stamped and Formed Contacts**



# STRAIGHT PCB TERMINATION STANDARD and HIGH DENSITY

CHARACTERISTICS

## Specifications

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

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

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

| Climatic Data | |
|---|---|
| **Operating temperature** | -55°C to +125°C |
| **Salt spray** | 24 hours |

### Mechanical Data

**Single contact insertion force** 0.54kg (1.19lb) max
**Single contact withdrawal force** SD : 0.06kg (0.13lb) min
HD : 0.02kg (0.044lb) min

**Mating and unmating force**
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) |

**Standard plating thickness**
- Gold flash
- 0.4µm (15µ") Gold
- 0.76 µm (30µ") Gold

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

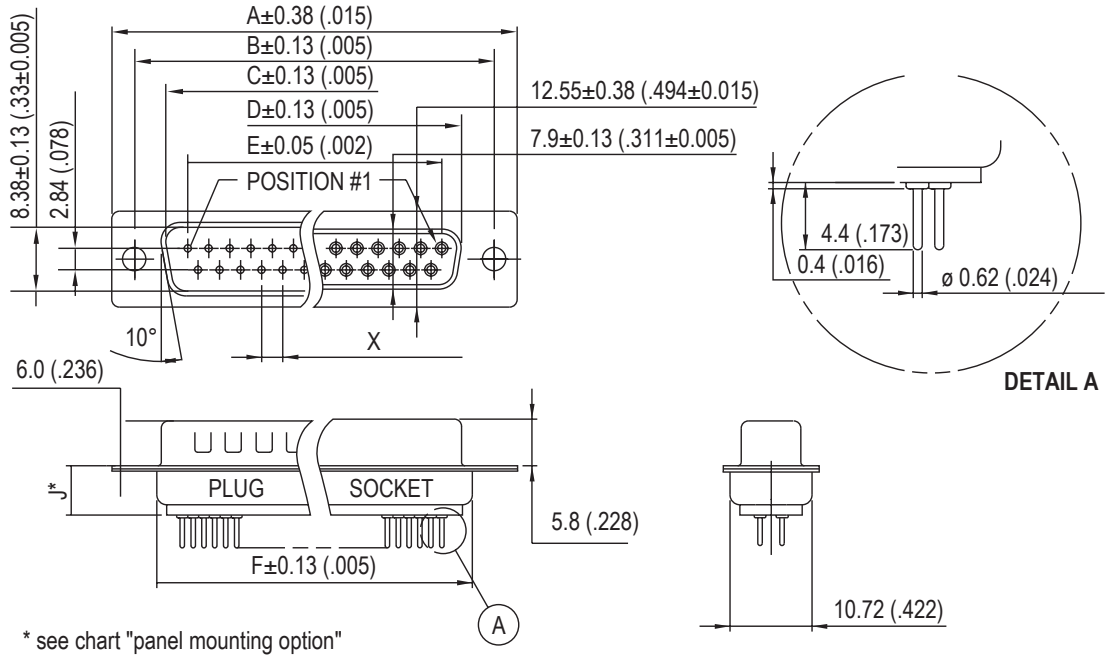
- Industrial
- Telecom
- Any industry standard I / O connections

SD / E6

Amphenol RoHS Compliant EU 2002/95/EC

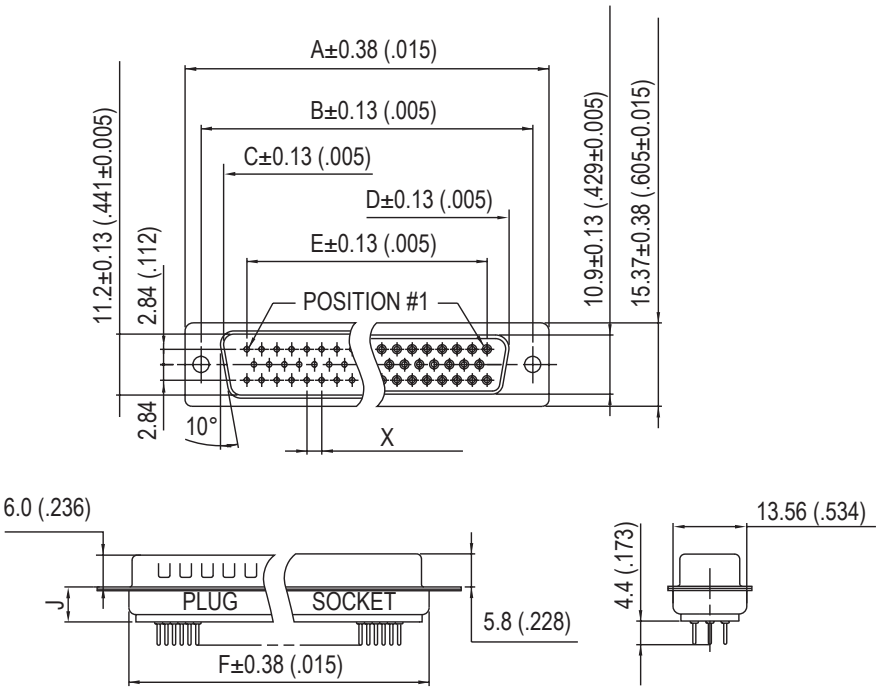
Amphenol

## Standard Density



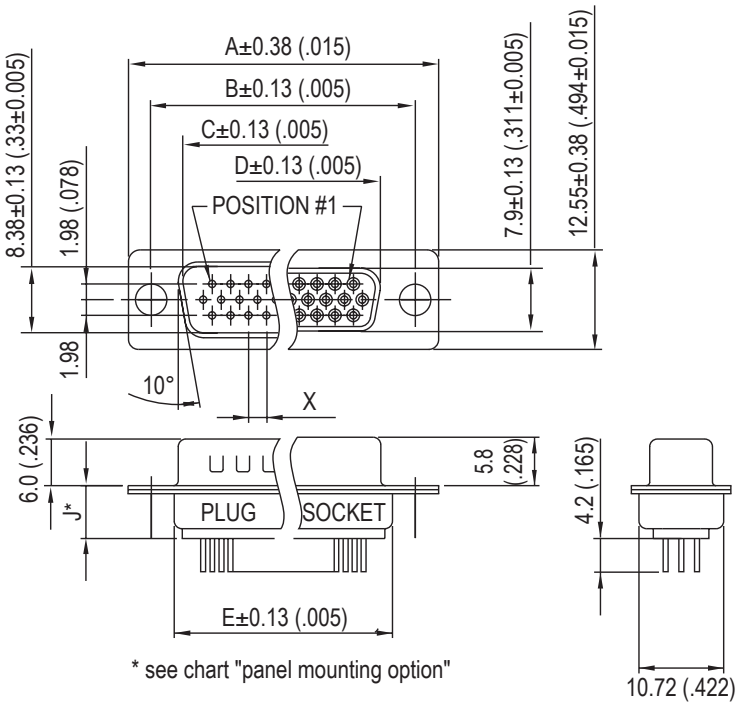

* see chart "panel mounting option"

| 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) |



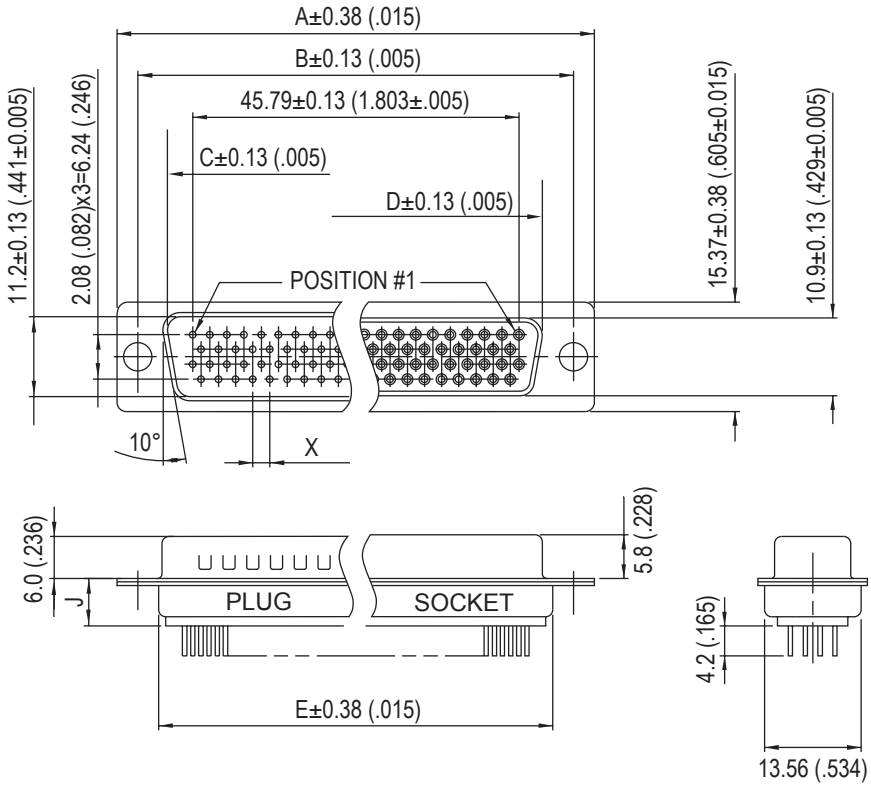

**50 CONTACTS**

# High Density



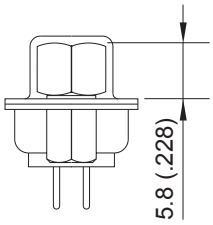

* see chart "panel mounting option"

| 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) |

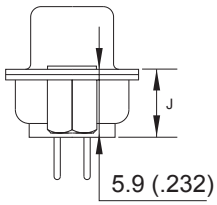



**78 CONTACTS**

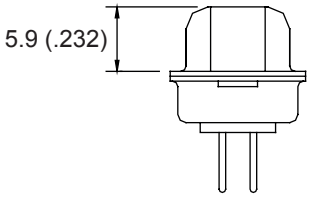
## Panel mounting option



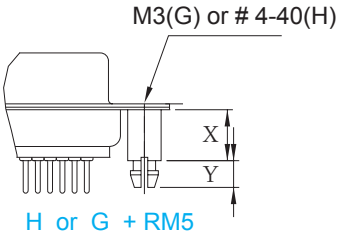

H + VF or G + VFM
Front Female Screwlock




H or G
Threaded Rear Insert

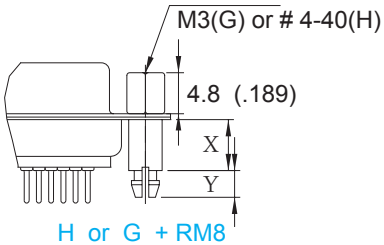



4F or 3F
Fixed Front Screwlock




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 + Boadlock

## How to order

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

**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**

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