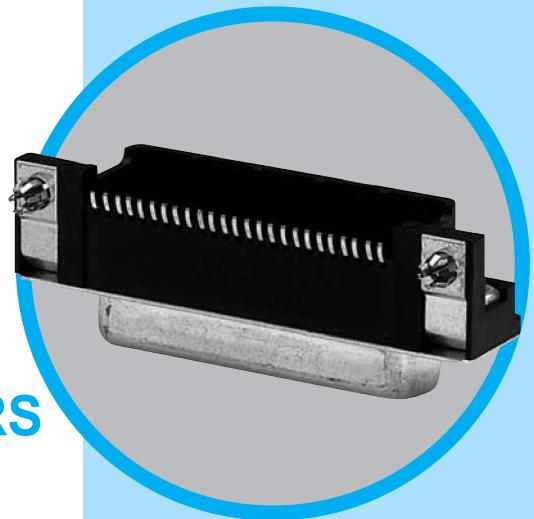


# SM2

D-Sub connectors - Stamped and Formed Contacts



## SURFACE MOUNT CONNECTORS

### CHARACTERISTICS

#### Specifications

- Connectors according to MIL C24308 - NFC 93425-HE5

Materials and Platings	
<b>Shells</b>	Steel with tin plating
<b>Insulator</b>	High temperature (peak at 260°C) glass-filled thermoplastic, UL 94V-0
<b>Socket contact</b>	Stamped and formed brass, selected gold in mating area; 2.54µm (100µ") min. tin on termination area, with entire contact under-plated 1.27µm (50µ") min. nickel
<b>Rear insert</b>	Brass, 3µm up to 5µm (118µ" up to 197µ") tinned over nickel 2µm up to 3 µm (78µ" to 118µ")
<b>Boardlock</b>	Tin plating 4µm up to 6µm (157µ" up to 236µ") over nickel 2µm up to 3µm (78µ" up to 118µ"), insertion force: Low Insertion Force = LIF (bronze) Zero Insertion Force = ZeFo (bronze)
<b>Screwlock</b>	Brass, 6µm up to 10µm (236µ" up to 394µ") tinned over nickel 2µm up to 3µm (78µ" up to 118µ")
<b>Grounding</b>	Grounding strap: brass, 4µm up to 6µm tin plating over nickel 2µm up to 3µm (78µ" up to 118µ")

Electrical Data	
<b>Current rating</b>	3A
<b>Voltage rating</b>	300V AC/rms 50Hz
<b>Withstanding voltage</b>	1000V AC/rms 50Hz for one minute
<b>Insulation resistance</b>	5000MΩ
<b>Contact resistance</b>	10mΩ max

Climatic Data	
<b>Operating temperature</b>	85°C, peak at 105°C
<b>Damp heat</b>	56 days (40°C - 95% HR)

Mechanical Data		
<b>Single contact insertion force</b>	1.2N < F < 2.5N	
<b>Single contact withdrawal force</b>	0.4N min	
<b>LIF boardlock</b>	8N max per connector	
<b>Coplanarity of contacts</b>	0.2mm (.008") max	
<b>Mating and unmating force</b>		
Unit: N		
No. of Cts	Mate (max)	Unmate (min)
9 (size E)	30	3.5
15 (size A)	50	4.5
25 (size B)	83	8.0

### DESCRIPTION

Amphenol SMT D-Sub is offered in right angle, receptacle with brackets, as an industry standard for I/O connections.

Boardlock features:

-LIF (Low Insertion Force) boardlock especially designed to be fully compatible with pick and place machine.

-ZeFo (Zero Force Insertion) boardlock has been designed so that once placed and expanded, secures a safe locking.

*Designed for  
Pick and Place  
SMT process*

### APPLICATIONS

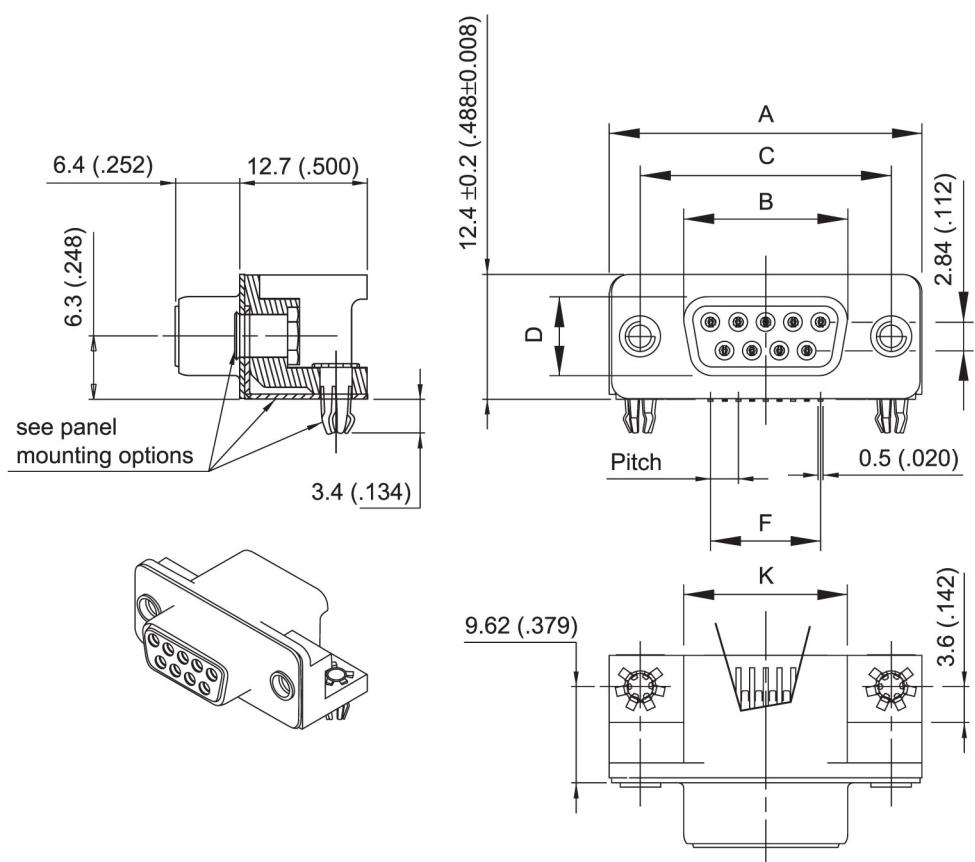
- Industrial
- Telecom
- Any industry standard I/O connections



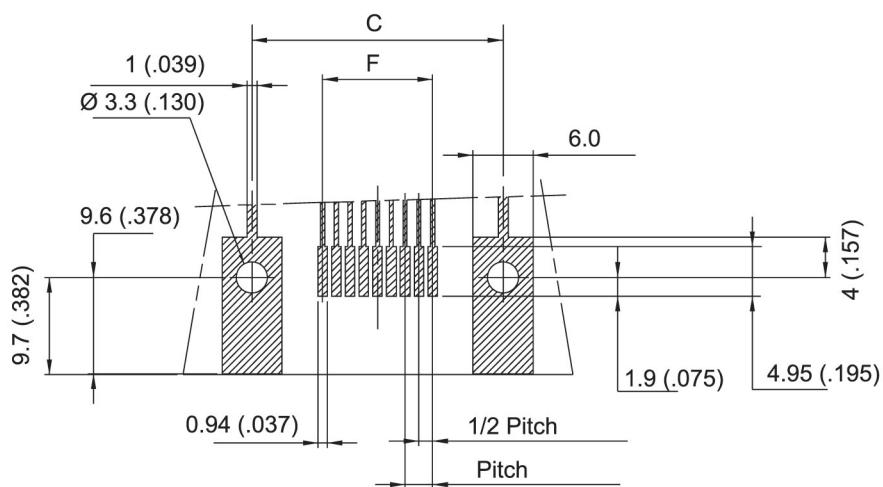
Amphenol

SM2 / E2

## Shell Size Dimensions



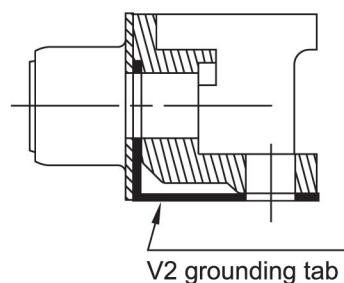
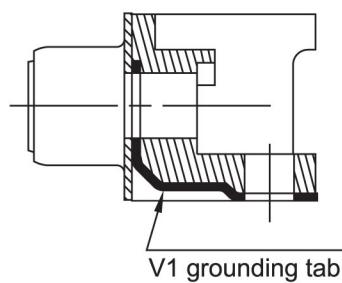
## PCB LAYOUT



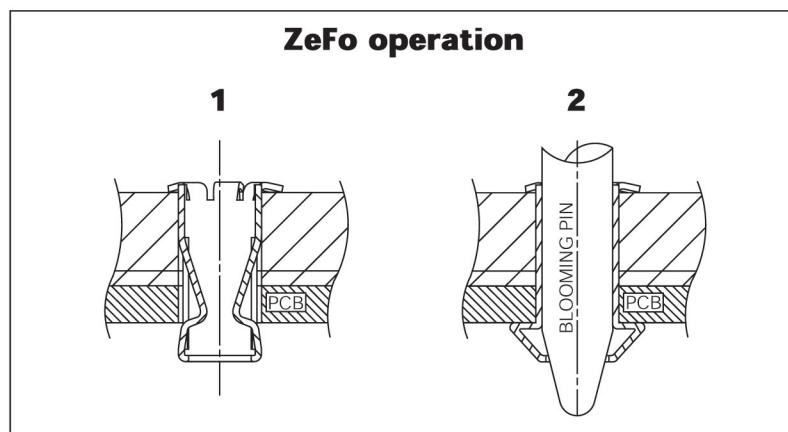
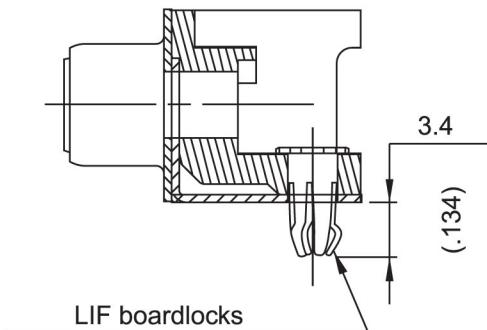
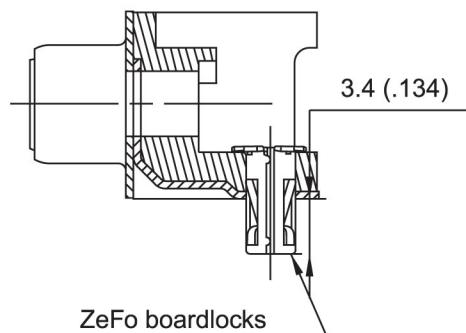
SHELL SIZE	mm (inch)						
	A +0.05 (.002) -0.1 (.004)	B 0 -0.2 (.008)	C ±0.1 (.004)	D 0 -0.25 (.01)	PITCH	F	K
E	31.15 (1.226)	16.4 (.645)	25 (.984)	8.03 (.316)	2.74 (.1078)	10.97 (.432)	16.3 (.642)
A	39.4 (1.551)	24.8 (.976)	33.3 (1.311)	8.03 (.316)	2.74 (.1078)	19.2 (.756)	24.6 (.968)
B	53.3 (2.098)	38.5 (1.515)	47 (1.850)	8.03 (.316)	2.76 (.1086)	33.12 (1.304)	38.3 (1.508)

## Panel mounting option

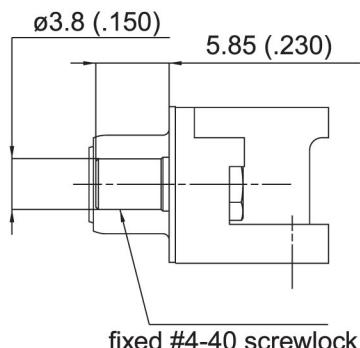
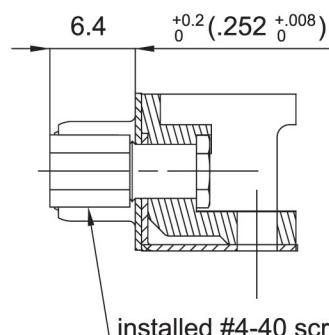
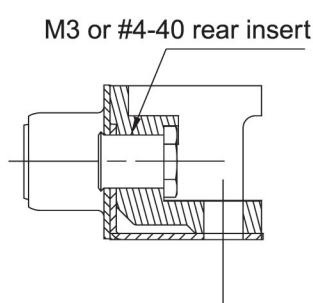
### GROUNDING TABS:



### BOARDLOCKS:



### FLANGES ACCESSORIES:



Threaded Rear

**1/2**

Installed Front Female  
Female

**5**

Fixed Front Female

**6**

## **How to order**

**L 17 SM2 S**

RoHS Compliant

**configuration:**  
09  
15  
25

**board locks / grounding tab:**  
1 = V1 grounding tab +ZeFo boardlocks (PCB = 1.6)  
4 = ZeFo boardlocks only (PCB = 1.6)  
7 = V1 grounding tab only  
8 = no grounding tab and no boardlocks  
**B** = V2 grounding tab + LIF boardlocks (PCB = 1.6)

**packaging:**  
**R** = reel (100 / reel, 9 Pos only)  
**T** = tube

**contact plating:**  
**1** =  $0.2\mu\text{m}$  Au ( $7.9\mu\text{m}$ )  
**2** =  $0.4\mu\text{m}$  Au ( $15.7\mu\text{m}$ )  
**3** =  $0.5\mu\text{m}$  Au ( $19.7\mu\text{m}$ )  
**4** =  $0.8\mu\text{m}$  Au ( $31.5\mu\text{m}$ )  
**6** =  $1.27\mu\text{m}$  Au ( $50\mu\text{m}$ )

**mounting options:**  
**1** = rear insert 4-40  
**2** = rear insert M3  
**5** = installed front screwlock 4-40  
**6** = fixed front screwlock 4-40

## : Standard options

**For special request, please consult factory**

**Memo**

**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  
Gang Ming Town, Shen Zhen China

fax:+86(0)755 2754 99

#### **Technical Support**

Technical Support  
Tel:+86(0)755 2717 7945

tel. +86(0)755 27117945  
Info-dsub@amphenol.com.c

[dsub@amphenol.com](mailto:dsub@amphenol.com)  
<http://www.dsubconnector.com>

<http://www.debian-installer.org>