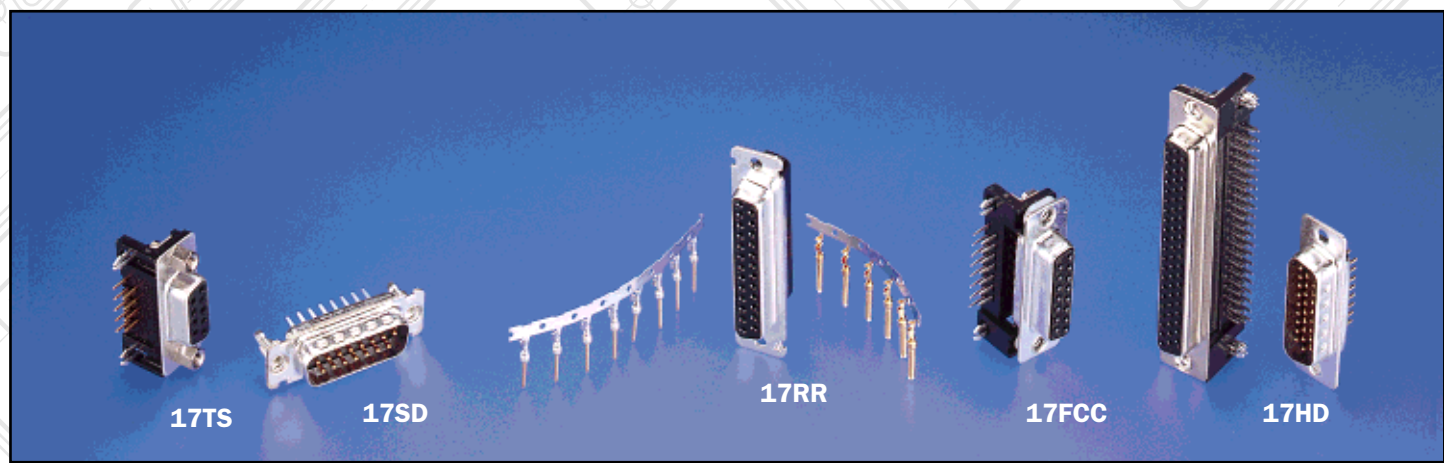




COMMERCIAL SERIES

Stamped and formed contacts

17SD STRAIGHT

PCB STRAIGHT MOUNTING

SOLDER CUP

Basic series for standard level applications.

100 to 200 mating cycles.
(Option: 500 mating cycles).

PCB mounting (brackets - boardlocks) and panel mounting
(threaded inserts - female screws) hardware available.

17TS RIGHT ANGLE

R/A PCB MOUNTING

Low cost series with brackets, grounding tabs, 4-40
threaded inserts or female jackscrews and boardlocks.

100 to 200 mating cycles.

MIL and HE5 layouts.

COMMERCIAL SERIES

Stamped and formed contacts

17FCC FILTERED

R/A AND STRAIGHT STYLES FOR
PCB MOUNTING

SOLDER CUP

New low cost filtered series with wide range of
capacitance from 180 to 47000 PF.

Compatible with standard D Sub connectors layout.

PCB mounting (brackets - boardlocks) and panel mounting
(threaded inserts - female screws) hardware available.

17HD

RIGHT ANGLE AND STRAIGHT PCB MOUNTING

SOLDER CUP

1,6 high density series:

- 15 contacts in a 9 way shell
- 26 ... 15
- 44 ... 25
- 62 ... 37
- 78 ... 50

PCB mounting (brackets - boardlocks) and panel mounting
(threaded inserts - female screws) hardware available for R/A
styles.

COMMERCIAL SERIES

Stamped and formed contacts

17RR

CRIMP CONTACTS

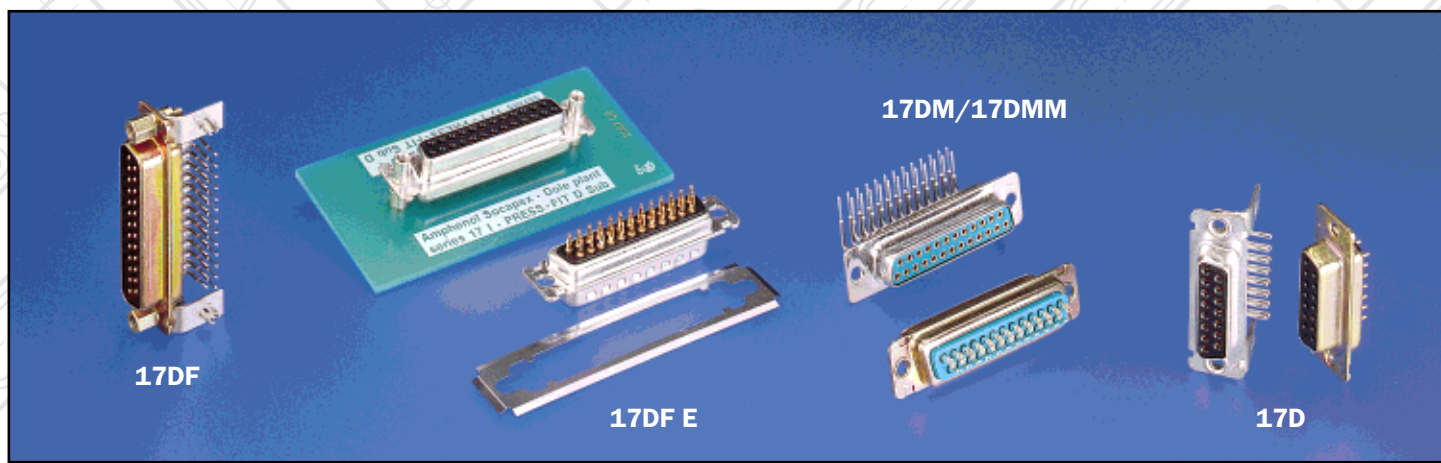
Crimp and rear release contacts with housings for cable
applications.

Depending on the application contacts can be supplied
bulk packaged or reel packaged.

Contacts duplex plating (gold/tin) or 100% gold plated.

From 10µ" to 50µ" gold plating.

Panel mounting options available.



TELECOM AND INDUSTRIAL SERIES

Screw machined contacts

17D

R/A AND STRAIGHT STYLES FOR PCB MOUNTING

SOLDER CUP

W.WRAPP. TERMINATIONS

Basic series for applications which require standard performances and screw machined contacts reliability
NFC 93425 - UL rated.

MIL and HE5 layouts.

17DF

R/A AND STRAIGHT STYLES FOR PCB MOUNTING

SOLDER CUP

W.WRAPP. TERMINATIONS

17D series upgraded for Telecom applications which require high number of mating cycles and high operating temperature contacts.

Bronze contacts.

Lnz list. GAM T 1 A.

MIL and HE5 layouts.

TELECOM AND INDUSTRIAL SERIES

Screw machined contacts

17DF E

STRAIGHT COMPLIANT PINS

WITH PRE-INSERTION BOARDLOCKS

EMC JOINTAGE

Same series than 17DF with compliant pins and pre-insertion boardlocks.

EMC jointage as an option for a perfect shielding-sealing between the metal cover of the equipment and the front shell of connector.

Permits a excellent EMC shielding to comply with new 1996 EMC regulations.

The pre-insertion boardlocks insure safe and reliable connector position onto the PCB during the assembly/insertion process.

Flat rock tooling.

MILITARY SERIES

Screw machined contacts

17DM/17DMM

R/A AND STRAIGHT STYLES FOR PCB MOUNTING

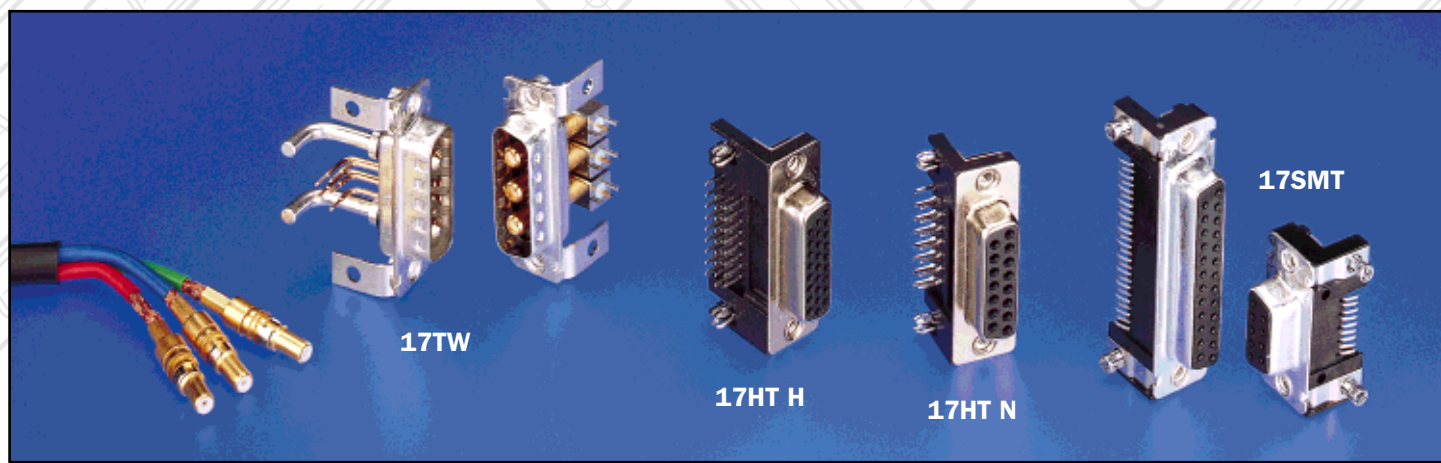
SOLDER CUP

W.WRAPP. TERMINATIONS

HE508 and MIL series for military applications.

NFC 93425 - UL rated
GAM T 1 A. MIL C 24308 QPL
Green thermoset (DAP).

HE5 and MIL layout.



New technologies

HIGH TEMPERATURE SERIES SMT COMPATIBLE

17HT N

RIGHT ANGLE PCB MOUNTING

New series of R/A PCB connectors compatible with new soldering techniques used for SMT process.

MIL layout.

Can also be used with wave soldering process.

17HT H 1.6 HIGH DENSITY

RIGHT ANGLE PCB MOUNTING

New series of R/A PCB connectors compatible with new soldering techniques used for SMT process.

Female contacts only.

MIL layout.

Can also be used with wave soldering process.

New technologies

HIGH TEMPERATURE SERIES SMT COMPATIBLE

17TW HYBRID

R/A AND STRAIGHT PCB MOUNTING

CRIMP

SOLDER CUP

New series of hybrid commercial connectors multi-applications.

Permits a mix of:

- Signal,
- Power,
- Shielded and coaxial,
- Fiber optic,
- High voltage, contacts.

PCB styles come equipped with mounting hardware and contacts.

MIL and HE5 layouts.

Compatible with SMT soldering techniques.

Can also be used with wave soldering process.

New technologies

SMT SERIES

17SMT

RIGHT ANGLE PCB MOUNTING

New series of SMT connectors with Zero Insertion Force boardlocks.

Female contacts only.

Generation I to be handplaced or to be picked and placed by special robotic equipment.

Generation II compatible with most standard low speed SMD placement machines.



PLASTIC HOODS

Universal hood 17D - xx - H xxx

1 pcs plastic hood with "quick snap" locking and 2 cables entries straight and 45°. UL

2 pcs Hood 17 - 137 x

2 pcs plastic hood with screw locking, 2 cable entries straight and 45°. UL - External cable metal clamp. UL.

2 pcs Hood 17 - 15 xx - xx 17 - 16 xxx - xx

2 pcs plastic hood with screw locking, 2 cable entries straight and 45°. UL - Internal cable metal clamp. UL.

1 pcs 'quick snap locking' hood 17D PPK

1 pcs plastic hood with one straight cable entry and internal cable metal clamp. UL.

METALLIZED PLASTIC HOODS

Universal hood 17D - xx - HVB

1 pcs metallized plastic hood with "quick snap" locking and 2 cable entries straight and 45°. UL

1 pcs 'quick snap locking' hood 17D PPK - TM

2 pcs metallized plastic hood with one straight cable entry and internal cable metal clamp. UL.

METAL HOODS

FCC Hoods 17 - 1657

Metal hood - 2pcs design with screw locking.
Plastic grommets for different cable diameters
Straight cable entry.
Complies with FCC 207 80.

FCC Hoods - VDE 17 - DTZK

Metal hood - 2pcs design with screw locking.
360° shielding on the straight cable entry for a perfect shielding.
Attenuation more than 40dB from 30 MHz à 1 GHz.
Complies to VDE 0871 and FCC 20780.
ESD protected.

Plastic hood with metal shielding can 17 - DTK/17 - DTPK

Plastic hood with internal metal shielding can.
1 pcs design with 'quick snap-in locking'.
360° shielding on the straight cable entry for a perfect shielding. UL.

Locking hardware



- 17D 51 xxx - x
 - 17D 53 018 - x
- Sliding locks kit.

Lockings must be separatley ordered (M3 or 4-40).



- 17D 20418 - xxxxx - x
- Female jackscrew available with different length M3 or 4-40 tin or yellow chromated plating.
(2 lockings necessary par connector.
Standard 10 pcs plastic bag packaging).

- 17D 20419 - xx - x
 - 17D 20420 - xx - xx
- Male lockings available with tin or yellow chromated plating.



- 17-529 / 17-770
- Spring latch lockings.

Dust covers



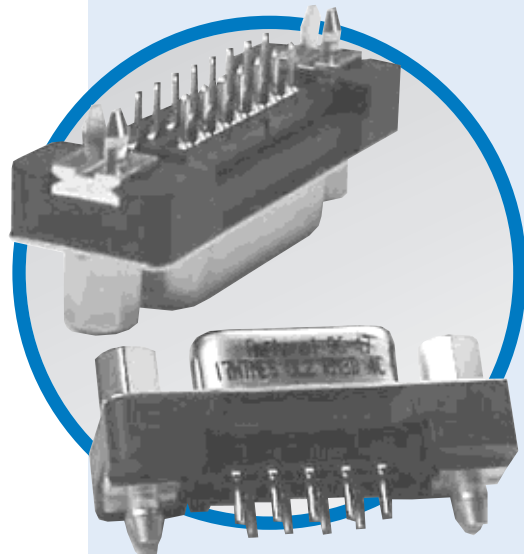
- 17D 4K 630 xxx
- Dust metal cover for female connector supplied with or without chain.

- 17D 4K 631 xxx
- Dust metal cover for male connector supplied with or without chain.

TS

D-Sub connectors - Stamped and Formed Contacts

STRAIGHT PCB TERMINATION ONE METAL SHELL CONNECTORS



MAIN CHARACTERISTICS

Specifications

- UL File: E119881
- Connectors according to MIL C24308

Materials and platings	
Shells	Steel with nickel plating
Insulator	Glass-filled thermoplastic, UL 94V-0
Contacts	Copper alloy, selective gold plating
Boardlock	Brass with nickel plating
Screwlock	Brass with nickel plating

Electrical Data	
Current rating	5A
Voltage rating	600V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	10mΩ max

Climatic Data	
Operating temperature	-55°C to +125°C

Mechanical Data		
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9	3.05 (6.74)	0.36 (0.79)
15	5.09 (11.24)	0.46 (1.01)
25	8.44 (18.66)	0.81 (1.8)
37	12.51 (27.65)	1.1 (2.47)
Standard plating thicknesses		
• gold flash • 0.4μm (15μ") gold • 0.76μm (30μ") gold		

DESCRIPTION

The one shell D-sub Amphenol series features, stamped and formed contacts.

This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements

*Economical
straight PCB,
one shell
connectors*

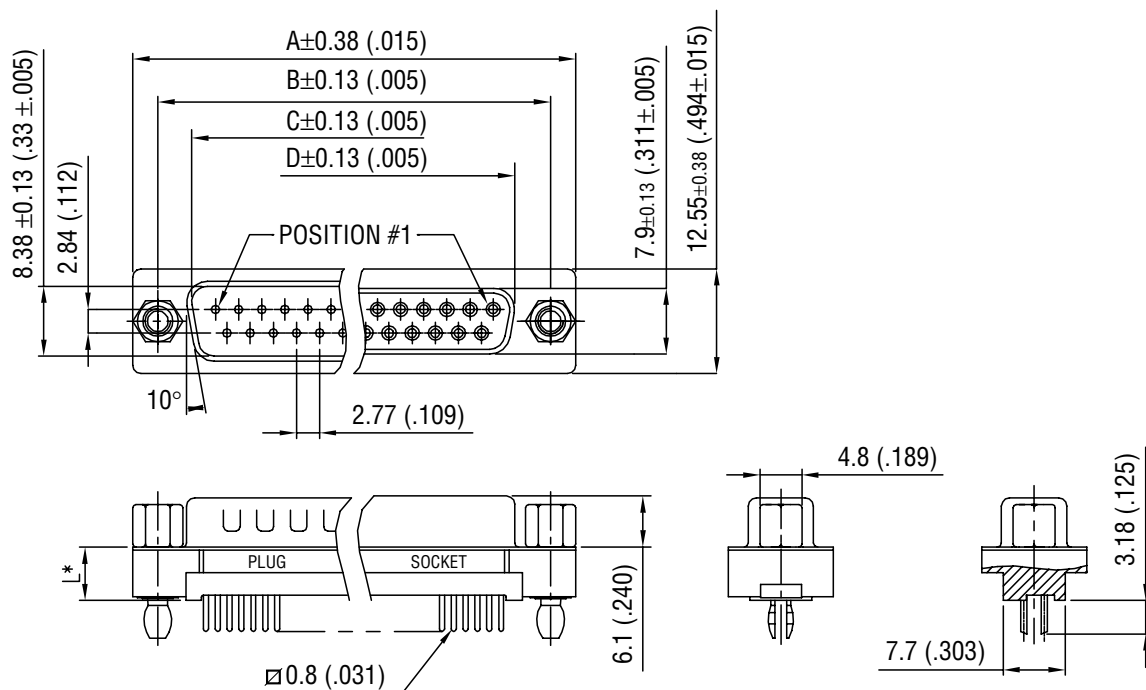
APPLICATIONS

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

TS

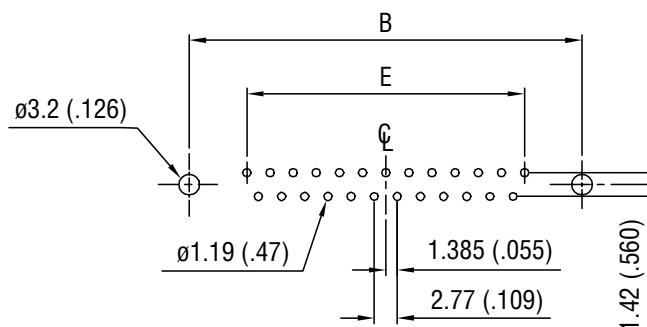
Shell size dimensions

OVERALL DIMENSIONS



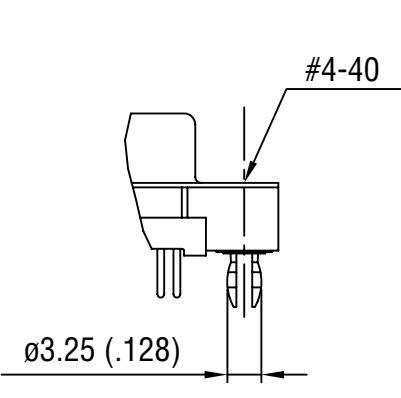
*see chart "how to order"

Recommended P.C.B. Layout

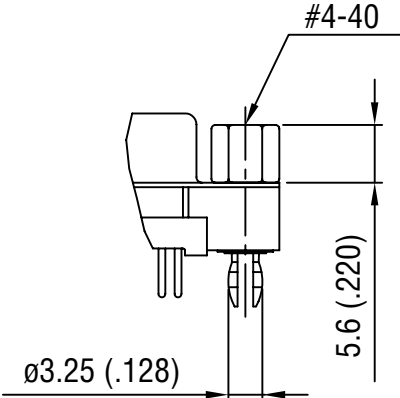


Nb OF CONTACTS	DIMENSIONS mm (inch)				
	A	B	C	D	E
9	30.84 (1.21)	24.99 (.984)	16.92 (.666)	16.26 (.640)	11.08 (.436)
15	39.24 (1.54)	33.32 (1.31)	25.25 (.994)	24.56 (.967)	19.39 (.763)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.30 (1.51)	33.24 (1.31)
37	69.34 (2.73)	63.50 (2.50)	55.42 (2.18)	54.76 (2.16)	49.86 (1.96)

Panel mounting option



Standoff boardlock
RM5



Standoff boardlock
RM8

How to order

...

gold flash	77	tinned shell for receptacle
	717	tinned shell + dimples for plug
0.76µm (30µ")	177	tinned shell for receptacle
	777	tinned shell + dimples for plug

shell size: E,A,B,C

configuration: 09,15,25,37

TS

...

...

...

...

...

grounding tabs:
RM5 = retention clip
RM8 = retention clip +front screwlock

termination:
OL2 : L = 6.02mm (.237")
OL2C: L = 11.48mm (.452")
OL2E: L = 11.95mm (.470")

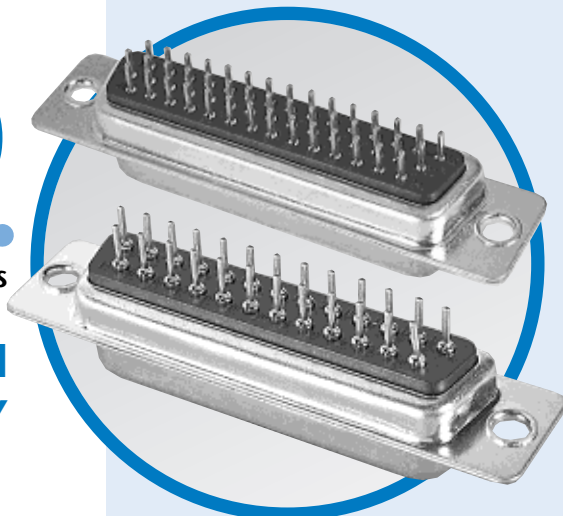
contact type:
P = pin
S = socket

For special request, please consult factory

SD

D'Sub connectors - Stamped and Formed Contacts

STRAIGHT PCB TERMINATION STANDARD and HIGH DENSITY



MAIN CHARACTERISTICS

Spécifications

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

Materials and platings	
Shells	Steel
Insulator	Glass-filled thermoplastic, UL 94V- 0
Pin contact	Brass, selected gold in mating area; 2.54µm (100 µ") min. tin-lead on termination area over 1.27µm (50µ") min. nickel
Socket contact	Phosphor bronze, selected gold in mating area; 2.54µ (100µ") min. tin-lead 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 per contact High Density: 3A per contact
Voltage rating	250V AC/ rms 50Hz
Withstanding voltage	1000V AC/ rms 50Hz for one minute
Insulation resistance	1000MΩ at 500V DC
Contact resistance	20 mΩ max

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

Mechanical Data					
Single contact insertion force		0.54kg (1.19 lb) max			
Single contact withdrawal force		S D: 0.06kg (0.13lb) min H D: 0.02kg (0.044lb) min			
Mating and unmating force					
Unit: kg (lb)					
No. of Pos		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 thicknesses

• gold flash,

• 0.381μm (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*

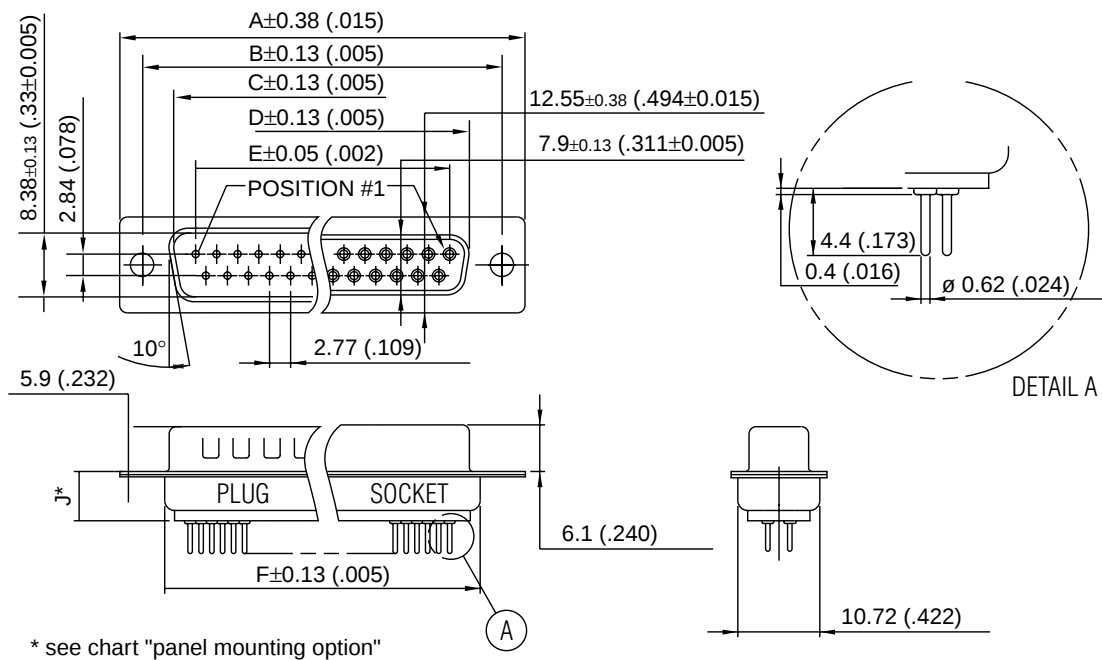
APPLICATIONS

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

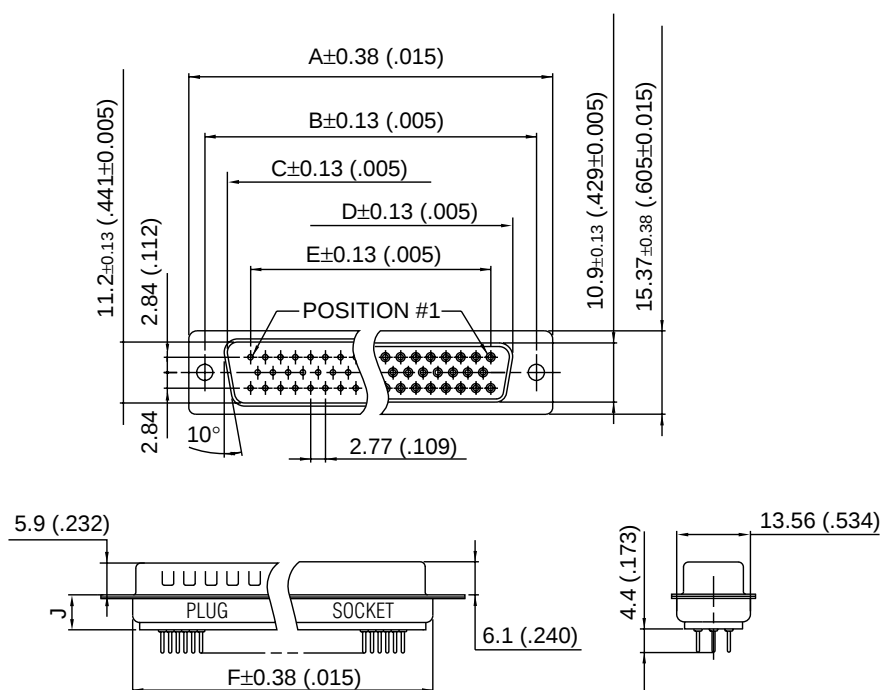
SD

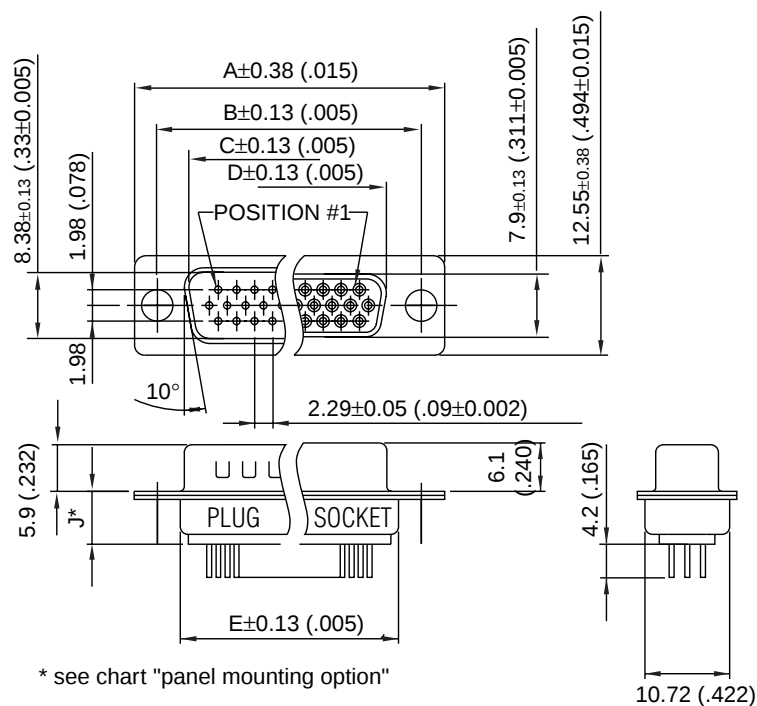
Standard Density

OVERALL DIMENSIONS

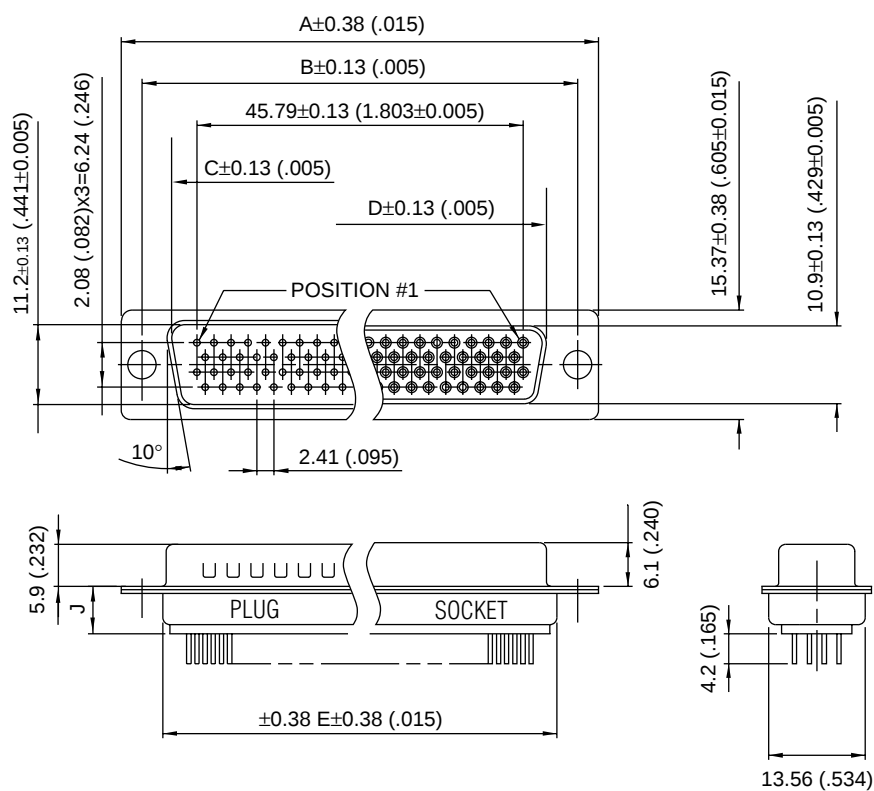


Nb OF CONTACTS	DIMENSIONS mm (inch)					
	A	B	C	D	E	F
9	30.84 (1.21)	24.99 (.98)	16.92 (.67)	16.24 (.64)	11.09 (.44)	19.28 (.76)
15	39.24 (1.54)	33.32 (1.31)	24.7 (.972)	24.56 (.97)	19.39 (.76)	27.51 (1.08)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)	41.30 (1.63)
37	69.32 (2.73)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

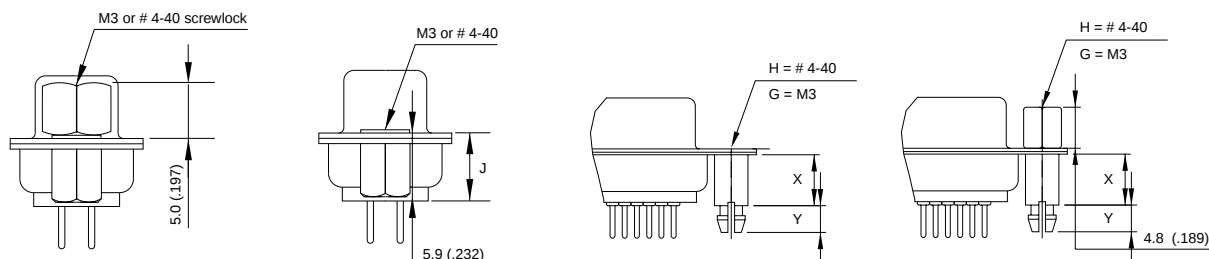
**50 CONTACTS**



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

**78 CONTACTS**

Panel mounting option



Front Female Screwlock

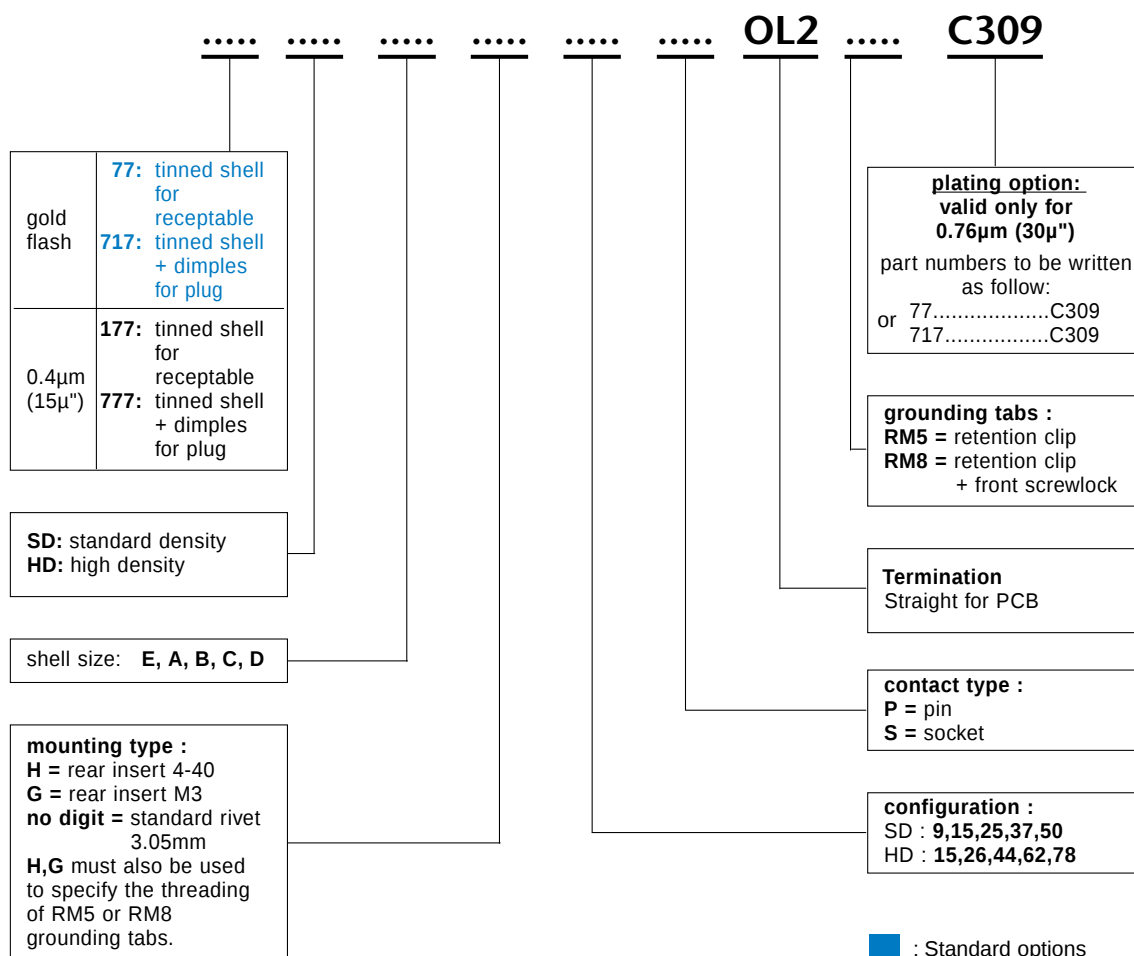
Threaded Rear Insert

RM5 Standoff Boardlock

RM8 Standoff Boardlock

	RM5 RM8	RM5G RM8G
X	6.0(.236)	12.7(.500)
Y	4.2(.126)	3.2(.126)
J	6.2(.244)	11.8(.465)

How to order



For special request, please consult factory

Do not hesitate to contact us for further information

Amphenol

**Amphenol Socapex
Telecom Business Unit**

21, chemin du Défois - BP 349

F - 39100 Dole

Fax: +33 (0) 3 84 82 94 11

http://www.dsubconnector.com

Technical support

Tel.: +33 (0) 3 84 82 94 00

www.DataSheet4U.com

SD

D'Sub connectors - Stamped and Formed Contacts

SOLDER-CUP TERMINATION STANDARD and HIGH DENSITY



MAIN CHARACTERISTICS

Spécifications

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

Materials and platings	
Shells	Steel
Insulator	Glass-filled thermoplastic, UL 94V-0
Pin contact	Brass, selected gold in mating area; 2.54µm (100µ") min. tin-lead on termination area over 1.27µm (50µ") min. nickel
Socket contact	Phosphor bronze, selected gold in mating area; 2.54µm (100µ") min. tin-lead on termination area over 1.27µm (50µ") min. nickel
Rear insert	Brass, 2.54µm (100µ") min. nickel plated
Screwlock	Brass, 2.54µm (100µ") min. nickel plated (removable)

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

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

Mechanical Data					
Single contact insertion force		0.54kg (1.19 lb) max			
Single contact withdrawal force		S D: 0.06kg (0.13lb) min H D: 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 thicknesses	• gold flash, • 0.381µm (15µ") gold, • 0.76 µm (30µ") gold
------------------------------	--

DESCRIPTION

The Amphenol "SD" series features precisionformed contacts, and insulator with closed entry contacts cavities.

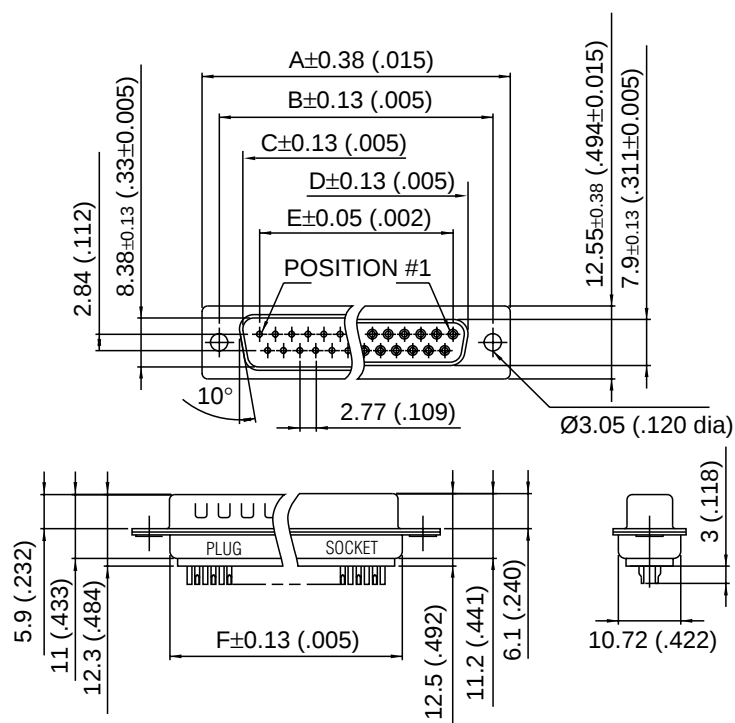
This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements.

*Economical
solder cup
connectors*

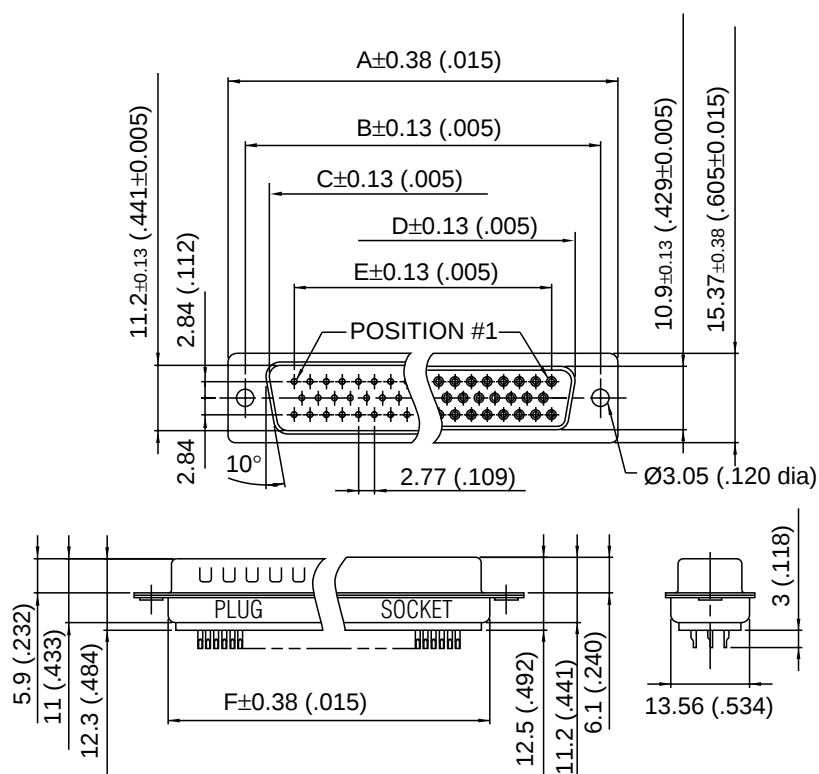
APPLICATIONS

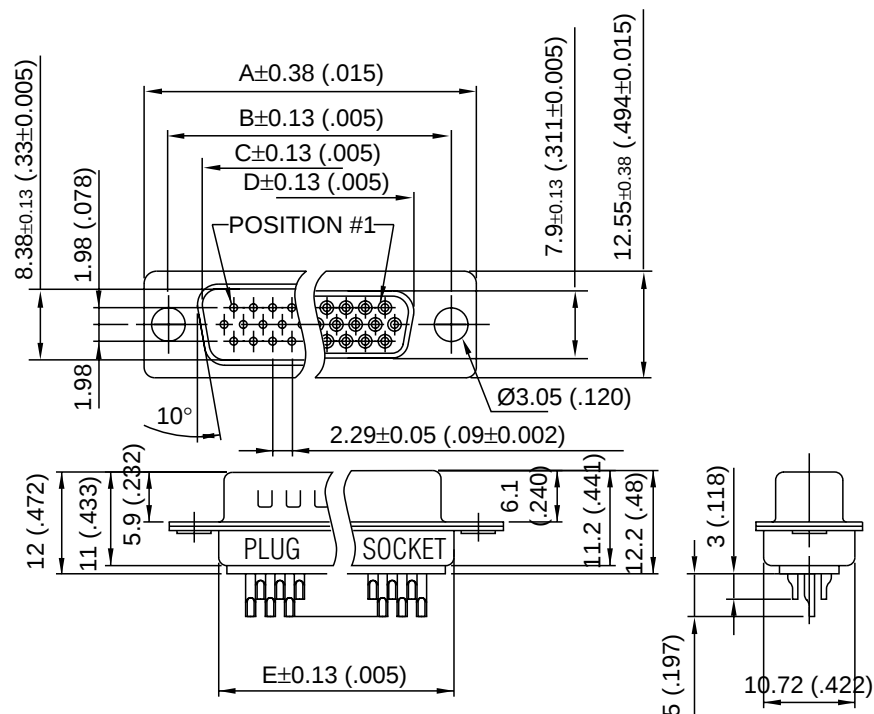
- Industrial
- Telecom
- Any industry standard I / O connections

SD

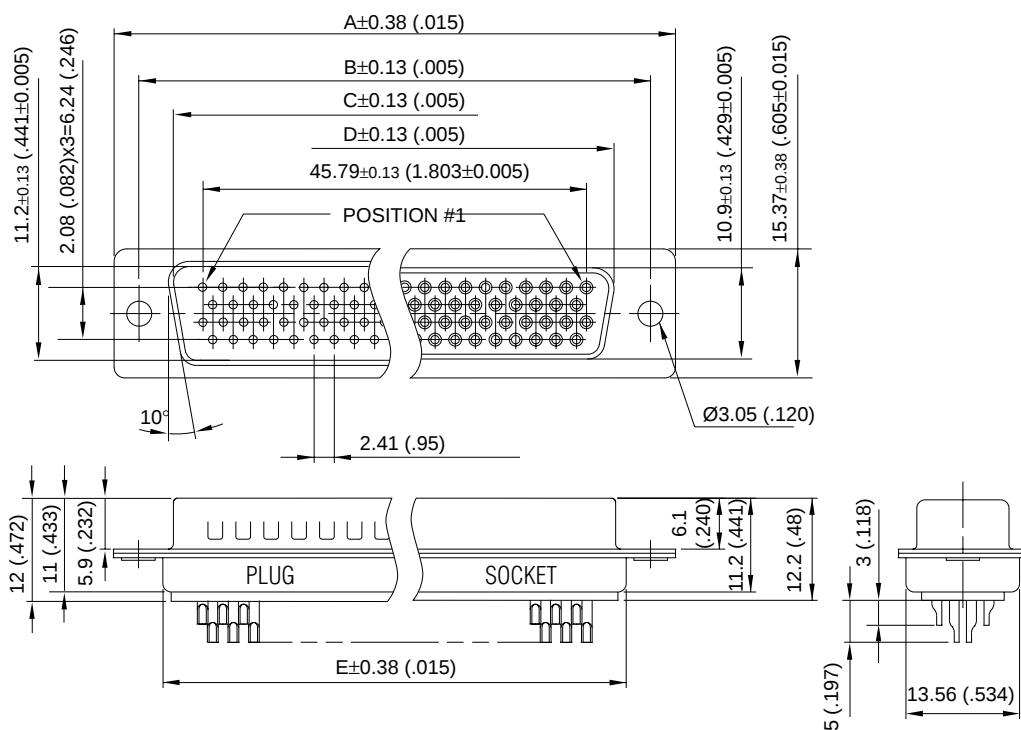


Nb OF CONTACTS	DIMENSIONS mm (inch)					
	A	B	C	D	E	F
9	30.84 (1.21)	24.99 (.98)	16.92 (.67)	16.24 (.64)	11.09 (.44)	19.28 (.76)
15	39.24 (1.54)	33.32 (1.31)	24.7 (.972)	24.56 (.97)	19.39 (.76)	27.51 (1.08)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)	41.30 (1.63)
37	69.32 (2.73)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

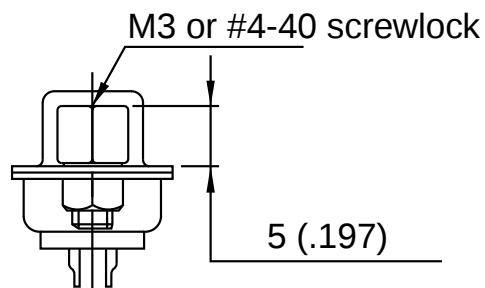
**50 CONTACTS**



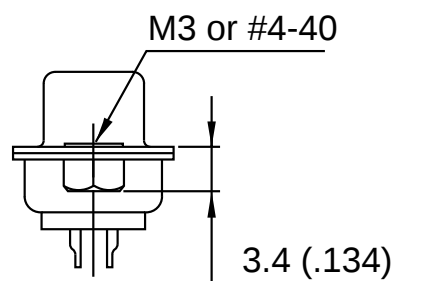
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78	67 (2.64)	61.11 (2.41)	52.86 (2.08)	52.34 (2.06)	55.3 (2.18)



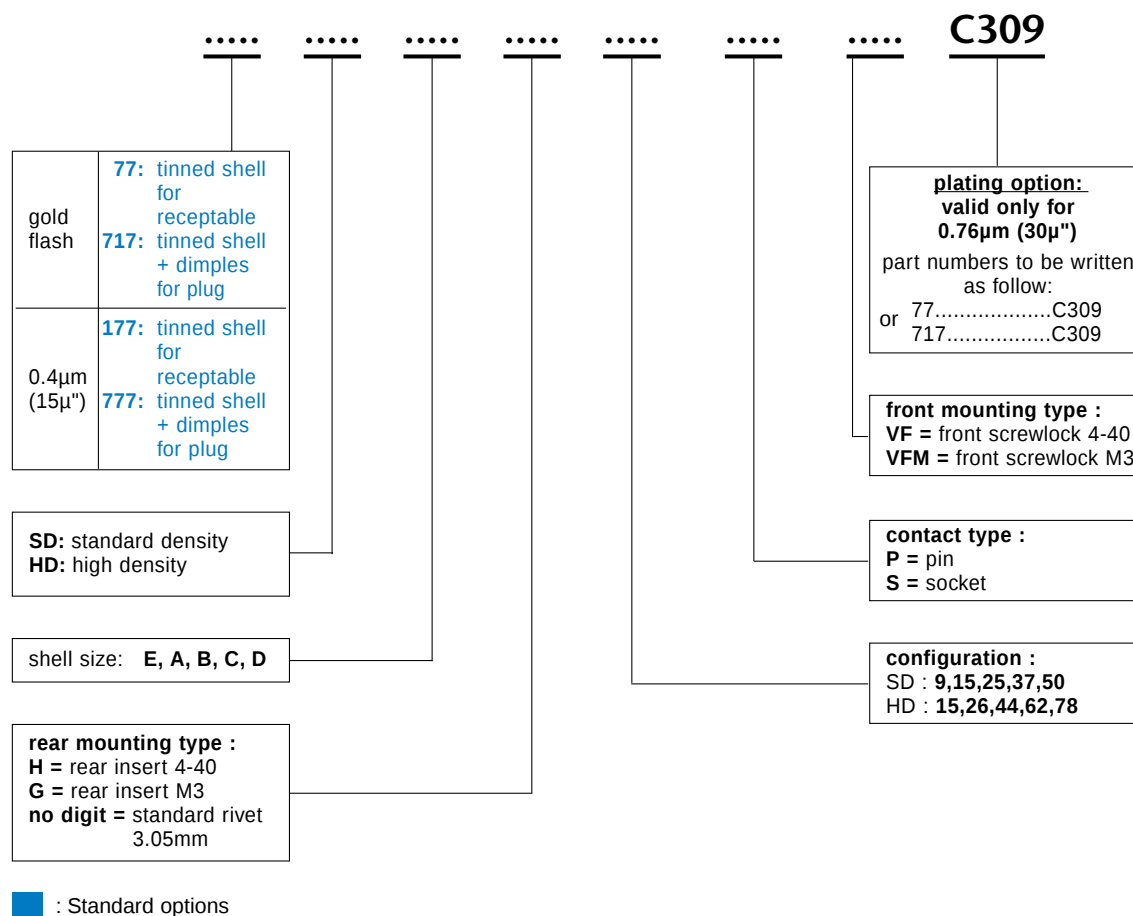
78 CONTACTS

Panel mounting option

Front Female Screwlock
VF / VFM



Threaded Rear Insert
H / G

How to order

For special request, please consult factory

Do not hesitate to contact us for further information

Amphenol

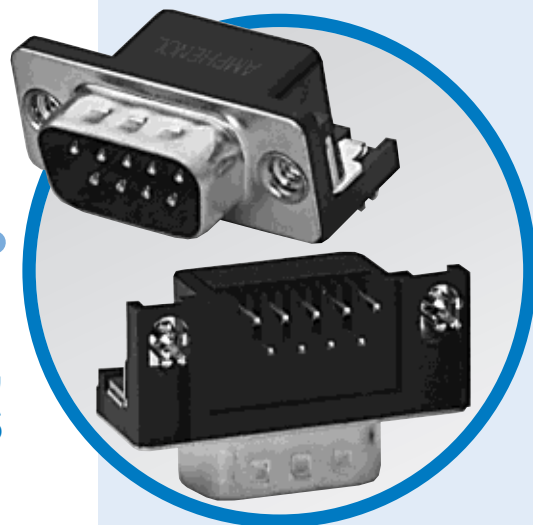
Amphenol Socapex
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 21, chemin du Défois - BP 349
 F - 39100 Dole
 Fax: +33 (0) 3 84 82 94 11
<http://www.dsubconnector.com>
 Technical support
 Tel.: +33 (0) 3 84 82 94 00

www.DataSheet4U.com

SD

D'Sub connectors - Stamped and Formed Contacts

RIGHT ANGLE, BOARD MOUNT CONNECTORS



MAIN CHARACTERISTICS

Spécifications

- **A4 Style** (MIL footprint): UL File: E149426
- **1A Style** (European footprint): UL File: E112081
- Connectors according to: MIL C24308 - NFC 93425-HE5

Materials and platings	
Shells	Steel, tin plated
Insulator	Glass-filled thermoplastic, UL 94V-0
Pin contact	Brass, selected gold in mating area; 2.54µm (100 µ") min. tin-lead on termination area over 1.27µm (50µ") min. nickel
Socket contact	Phosphor bronze, selected gold in mating area; 2.54µ (100µ") min. tin-lead on termination area over 1.27µm (50µ") min. nickel
Rear insert	Brass, 2.54µm (100µ") min. nickel plated
Boardlock	4 finger phosphor bronze, 2.54µm (100µ") min. tin-lead plated
Screwlock	Brass, 2.54µm (100µ") min. nickel plated (removable)

Electrical Data	
Current rating	5A per contact
Voltage rating	250V AC/ rms 50Hz
Withstanding voltage	1000V AC/ rms 50Hz for one minute
Insulation resistance	5000MΩ at 500V DC
Contact resistance	15 mΩ max

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

Mechanical Data				
Single contact insertion force	0.54kg (1.19 lb) max			
Single contact withdrawal force	0.06kg (0.13lb) min			
Mating and unmating force				
Unit: kg (lb)				
	A4 Style		1A Style	
No. of Cts	Mate (max)	Unmate (min)	Mate (max)	Unmate (min)
9	3.05 (6.74)	0.36 (0.79)	4.6 (10.17)	0.4 (0.88)
15	5.09 (11.24)	0.46 (1.01)	7.7 (17.02)	0.5 (1.10)
25	8.44 (18.66)	0.81 (1.8)	12.7 (28.07)	0.8 (1.77)
37	12.51 (27.65)	1.1 (2.47)	17.7 (39.12)	1.2 (2.65)

Standard plating thicknesses	• gold flash, • 0.381μm (15μ") gold, • 0.76 μm (30μ") gold
------------------------------	--

DESCRIPTION

The Amphenol "SD" series features precision formed contacts and 4 finger boardlocks.

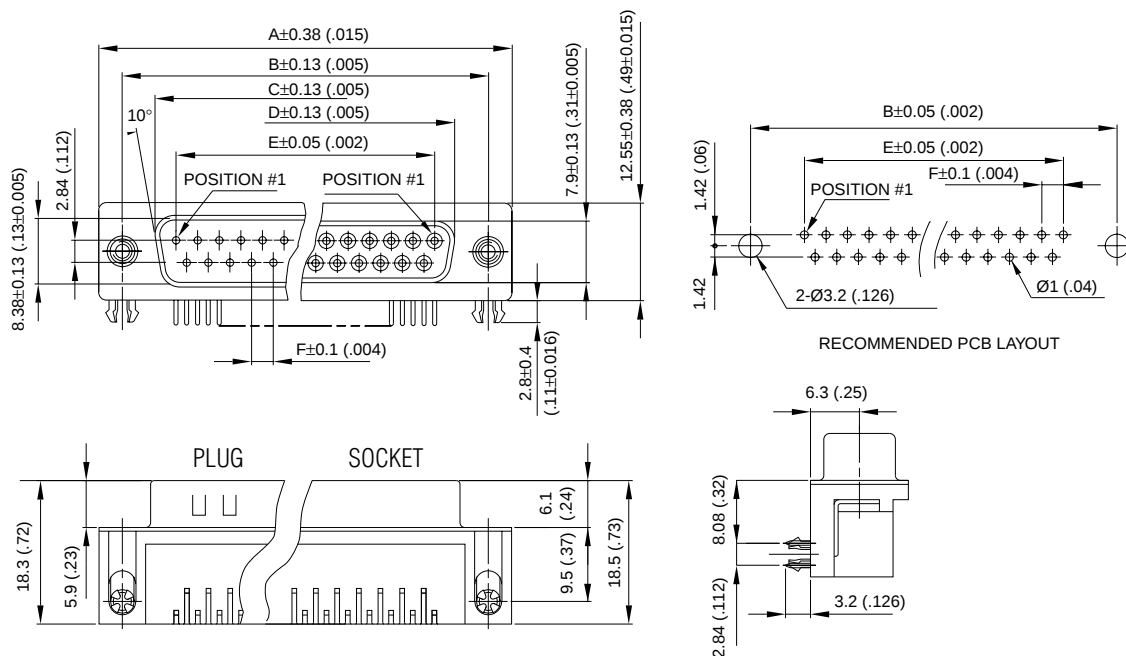
This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements.

*Economical
right angle PCB
mount
connectors*

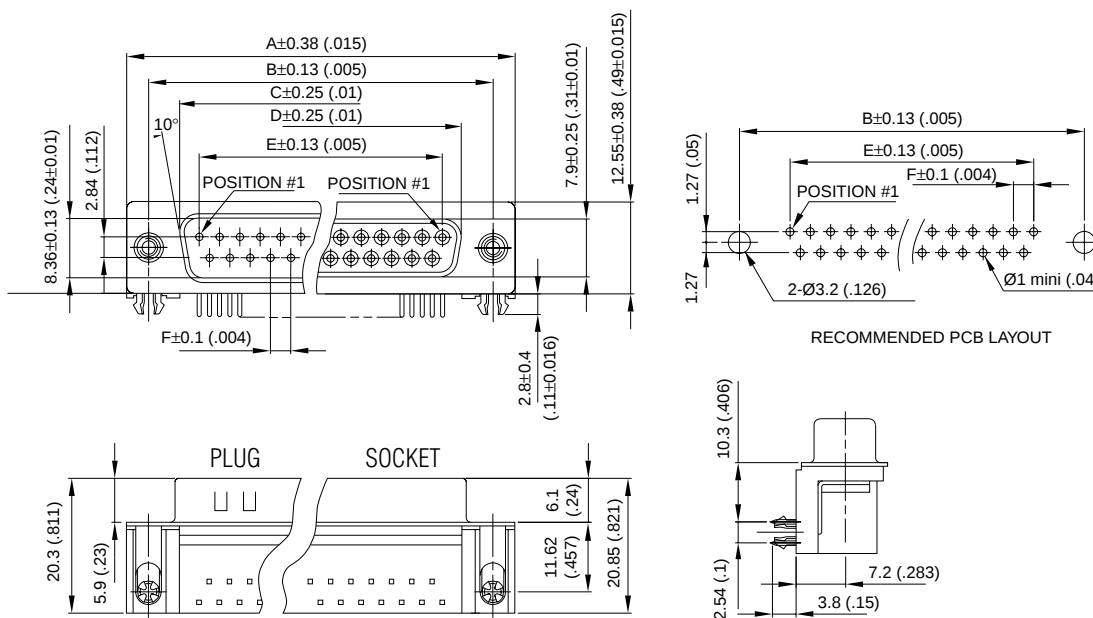
APPLICATIONS

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

SD

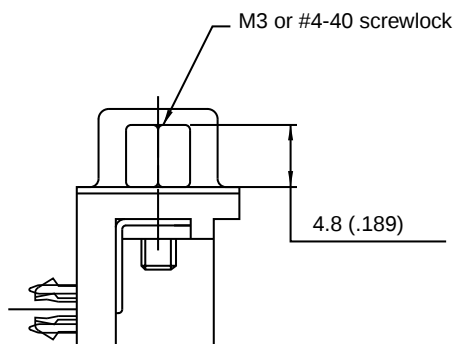
A4 style (MIL Footprint)

Nb OF CONTACTS	DIMENSIONS mm (inch)					
	A	B	C	D	E	F
9	30.81 (1.21)	24.99 (.98)	16.92 (.67)	16.24 (.64)	11.09 (.44)	2.74 (.108)
15	39.14 (1.54)	33.32 (1.31)	25.25 (.99)	24.56 (.97)	19.39 (.76)	2.74 (.108)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)	2.77 (.109)
37	69.32 (2.73)	63.50 (2.50)	55.42 (2.18)	54.76 (2.16)	49.86 (1.96)	2.77 (.109)

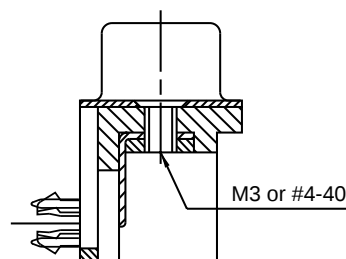
1A style (European Footprint)

Nb OF CONTACTS	DIMENSIONS mm (inch)					
	A	B	C	D	E	F
9	30.89 (1.22)	24.99 (.98)	16.92 (.67)	16.33 (.64)	10.96 (.43)	2.74 (.108)
15	39.1 (1.54)	33.32 (1.31)	25.25 (.99)	24.66 (.97)	19.18 (.755)	2.74 (.108)
25	53.09 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)	2.77 (.109)
37	69.4 (2.73)	63.50 (2.50)	55.42 (2.18)	54.84 (2.16)	49.86 (1.96)	2.77 (

Panel mounting option

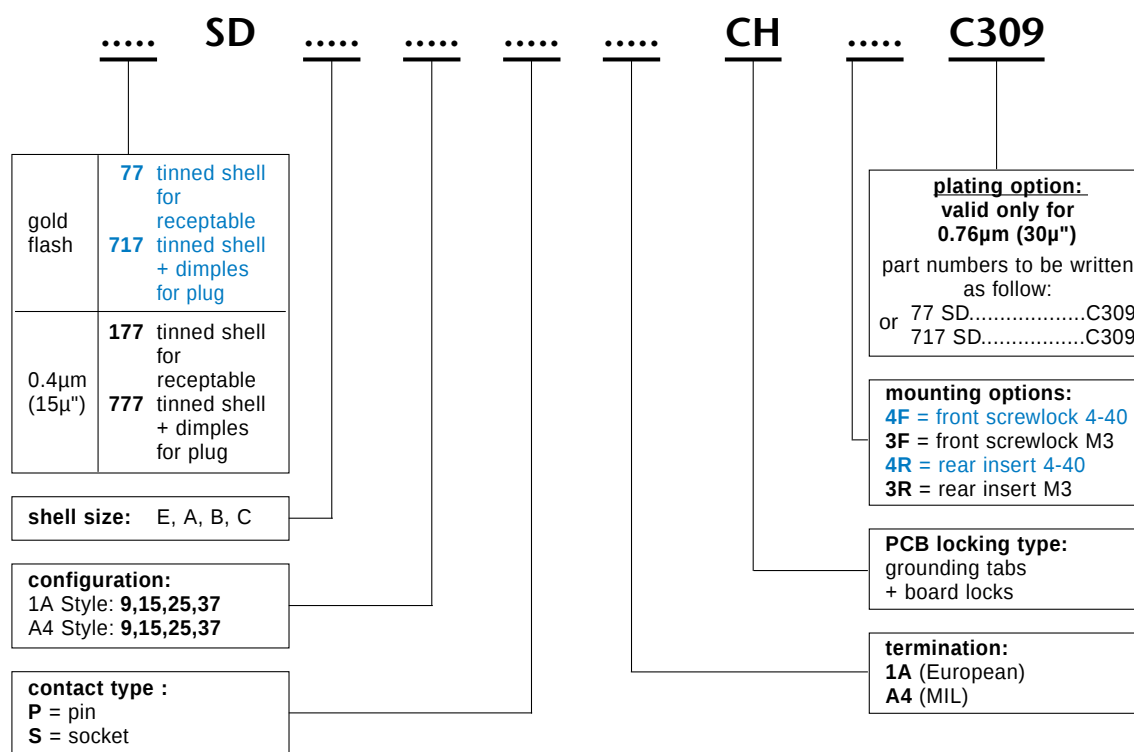


Front Female Screwlock
4F / 3F



Threaded Rear Insert
4R / 3R

How to order



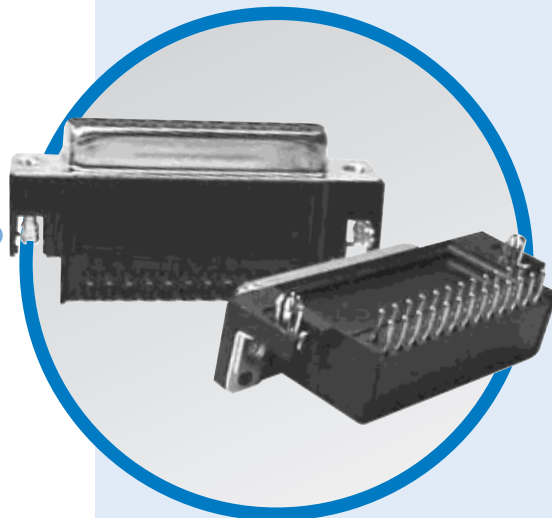
■ : Standard options

For special request, please consult factory

SD

D-Sub connectors - Stamped and Formed Contacts

RIGHT ANGLE BOARD MOUNT CONNECTORS FOOTPRINT 14.99 mm (.590")



MAIN CHARACTERISTICS

Specifications

- UL File: E119881
- Connectors according to MIL C24308

Materials and platings	
Shells	Steel with nickel plating
Insulator	Glass-filled thermoplastic, UL 94V-0
Contacts	Copper alloy, selective gold plating
Rear insert	Brass with nickel plating
Screwlock	Brass with nickel plating
Grounding clip	Copper alloy with tin-lead plating

Electrical Data	
Current rating	5A
Voltage rating	600V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	10mΩ max

Climatic Data	
Operating temperature	- 55°C to + 125°C

Mechanical Data		
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9 (size E)	3.05 (6.74)	0.36 (0.79)
15 (size A)	5.09 (11.24)	0.46 (1.01)
25 (size B)	8.44 (18.66)	0.81 (1.8)
37 (size C)	12.51 (27.65)	1.1 (2.47)

Standard plating thicknesses	• gold flash • 0.4μm (15μ") gold • 0.76μm (30μ") gold
-------------------------------------	---

DESCRIPTION

The Amphenol "SD" series features precision formed contacts and 4 finger boardlocks.

This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements.

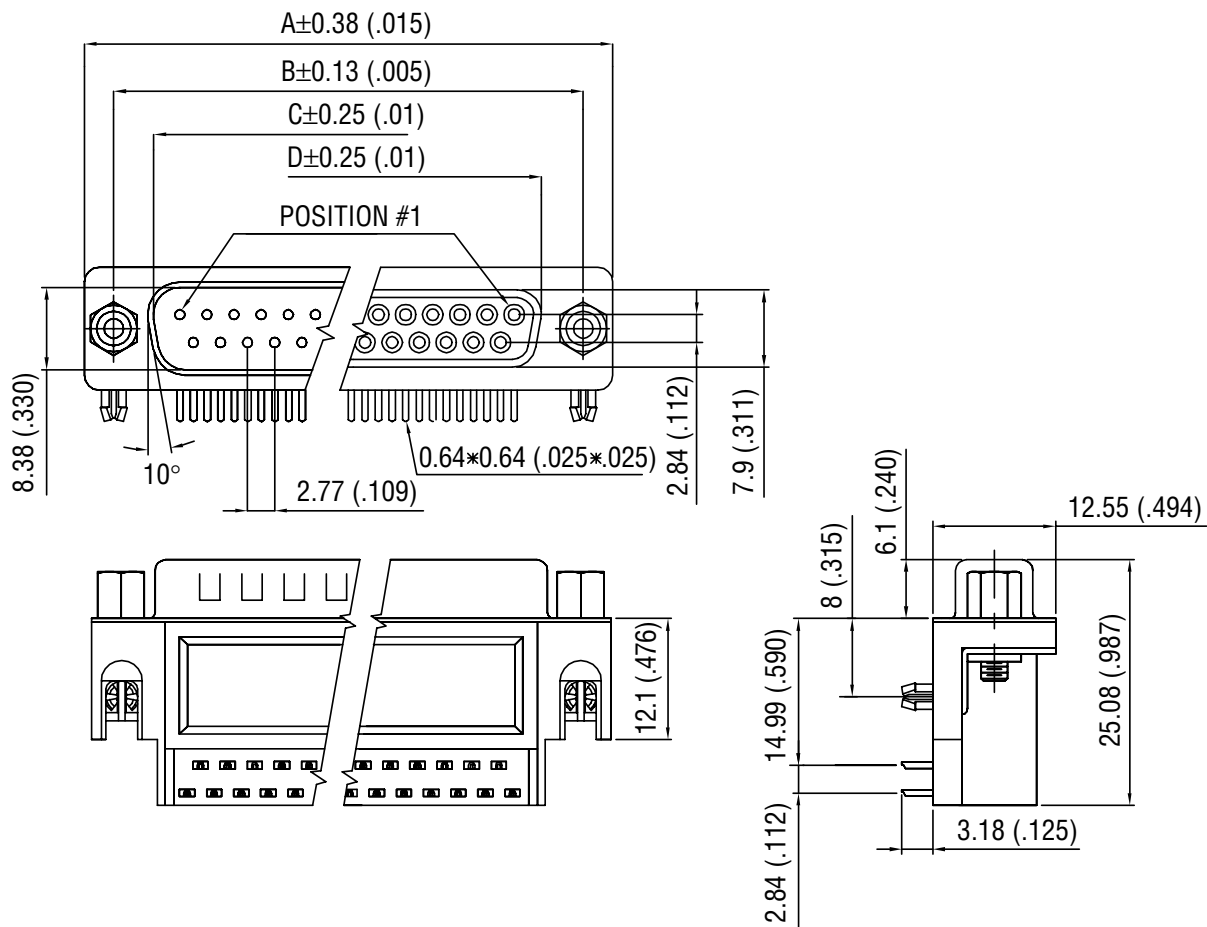
*Economical
right angle PCB
mount
connectors*

APPLICATIONS

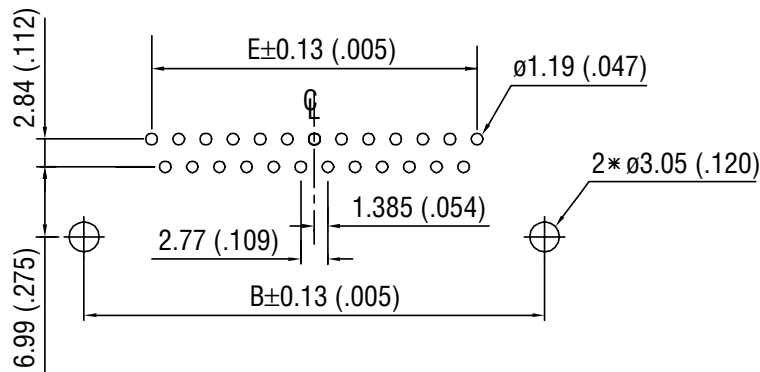
- Industrial
- Telecom
- Any industry standard I/O connections

SD

Shell Size Dimensions

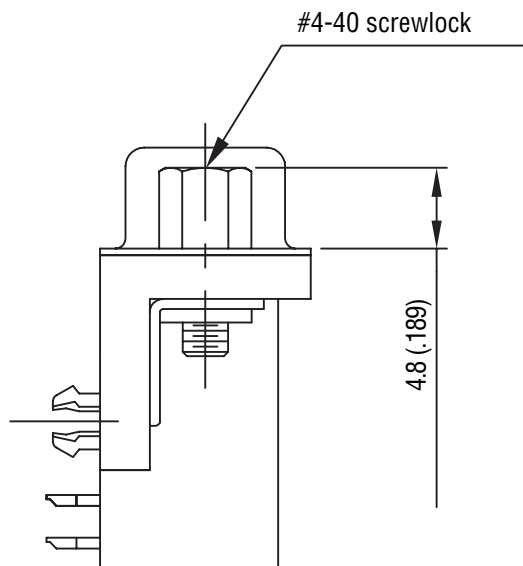


Recommended P.C.B. Layout

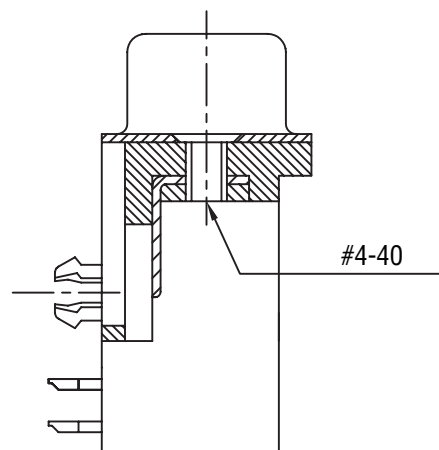


Nb of contacts	DIMENSIONS mm (inch)				
	A	B	C	D	E
9	30.84 (1.214)	24.99 (.984)	16.92 (.666)	16.26 (.640)	11.08 (.436)
15	39.24 (1.545)	33.32 (1.312)	25.25 (.994)	24.56 (.967)	19.39 (.763)
25	53.04 (2.088)	47.04 (1.852)	38.96 (1.534)	38.30 (1.508)	33.24 (1.309)
37	69.34 (2.730)	63.50 (2.500)	55.42 (2.182)	54.76 (2.156)	49.86 (1.963)

Panel mounting option



Front Female Screwlock
4F



Threaded Rear Insert
4R

How to order

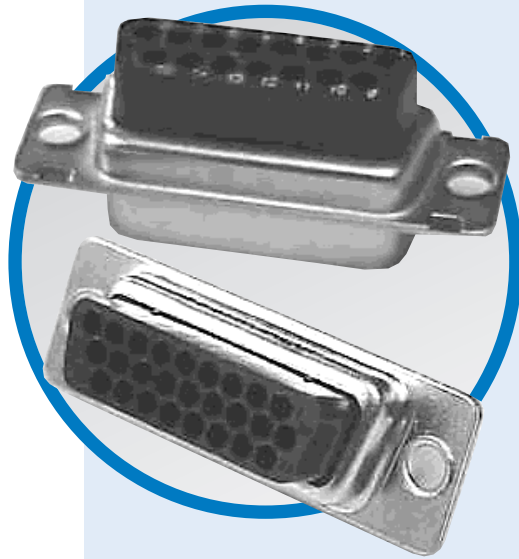
....		SD				AB	CH		C 309
gold flash	77	tinned shell for receptable							Plating option: valid only for 0.76µm (30µ") part numbers must be written as follow: 77SD.....C309 or 717SD.....C309
	717	tinned shell + dimples for plug							
0.4µm (15µ")	177	tinned shell for receptable							mounting options: 4F = front screwlock 4-40 4R = rear insert 4-40
	777	tinned shell + dimples for plug							
shell size: E,A,B,C									PCB locking type: grounding tabs + boardlocks
configuration: 09,15,25,37									
contact type: P = pin S = socket									footprint: 14.99 mm (.590")

For special request, please consult factory

RR-HR

D-Sub connectors – Stamped and Formed Contacts

REAR RELEASE CRIMP CONNECTORS



MAIN CHARACTERISTICS

Specifications

- **RR:** UL File : E64911
- **HR:** UL File : E149426
- Connectors according to MIL C24308

Materials and platings		
Shells	Steel yellow chromated over zinc or tinned steel with or without dimples on plug connector	
Insulator	Black glass-filled thermoplastic, UL 94V-0	
Rear insert	Brass, 3µm up to 5µm (118µ" up to 197µ") tinned over nickel 2µm up to 3µm (78µ" up to 118µ")	
Screwlock	Brass, 6µm up to 10µm (236µ" up to 394µ") tinned over nickel 2µm up to 3µm (78µ" up to 118µ")	
Contacts	Under plating	Crimp side
0.2µm (8µ") gold	2µm (78µ") nickel	gold flash or tin
0.5µm (20µ") gold	2µm (78µ") nickel	gold flash or tin
0.76µm (30µ") gold	2µm (78µ") nickel	gold flash or tin

Electrical Data	
Current rating	5A
Voltage rating	500V AC/rms 50Hz
Withstanding voltage	RR: 1000V AC/rms 50Hz for 1 minute HR: 1000V AC/rms 60Hz for 1 minute
Insulation resistance	RR: 5000MΩ HR: 1000MΩ
Contact resistance	10mΩ max
Wire size	20-28 AWG max insulation out Ø1.27mm (.05")

Climatic Data	
Operating temperature	-55°C to +105°C

Mechanical Data					
Mating and unmating force Unit: kg (lb)					
No. of Cts		Mate (max)		Unmate (min)	
RR	HR	RR	HR	RR	HR
9 (size E)	15 (size E)	3.05 (6.74)	3.81 (8.42)	0.36 (0.79)	0.52 (1.14)
15 (size A)	26 (size A)	5.09 (11.24)	5.95 (13.16)	0.46 (1.01)	1.05 (2.32)
25 (size B)	44 (size B)	8.44 (18.66)	9.26 (20.46)	0.81 (1.8)	1.37 (3.02)
37 (size C)	62 (size C)	12.51 (27.65)	13.48 (29.78)	1.1 (2.47)	1.76 (3.88)
50 (size D)	78 (size D)	14.65 (32.38)	15.82 (34.96)	1.6 (3.56)	2.02 (4.46)

DESCRIPTION

Designed for high volume production, Amphenol's rear release crimp connector and contacts provide significant cost saving.

- EMI / RFI shell configuration.
- Removable, reusable contacts.
- Automatic and manual tooling available.

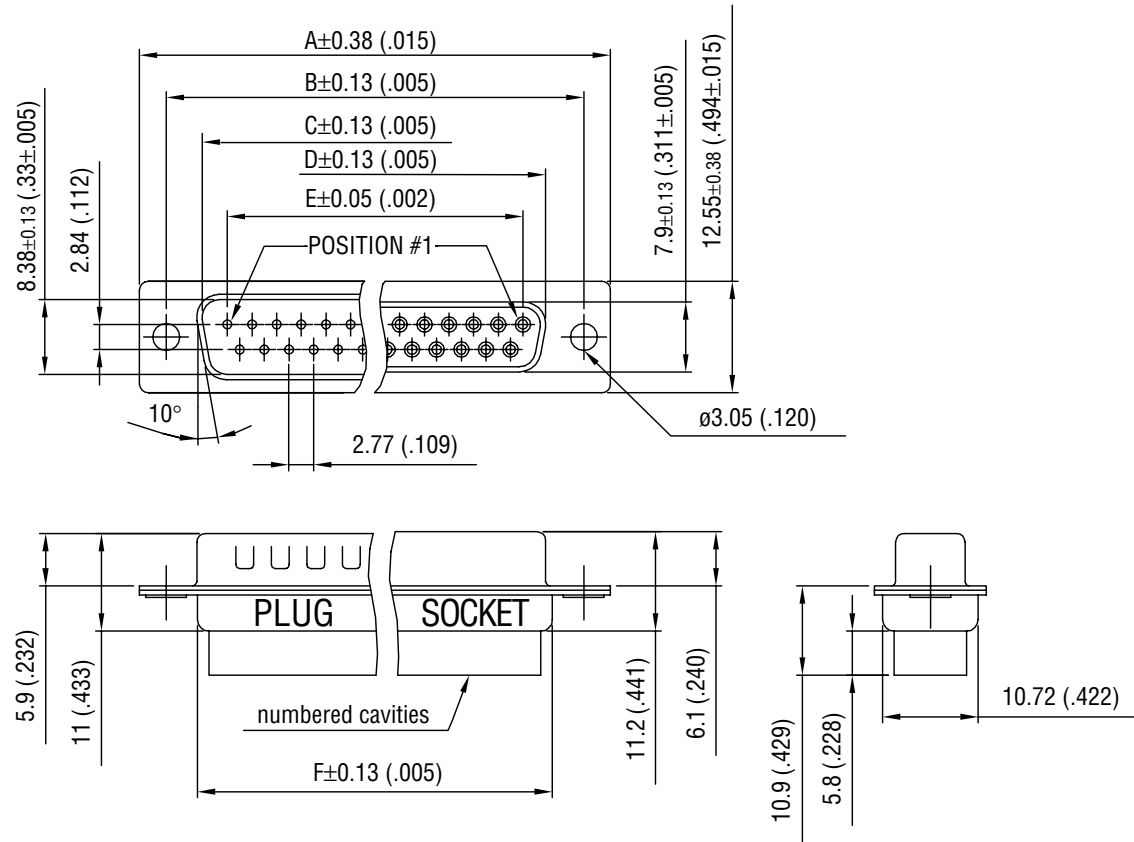
*Simplify
Your cable
assemblies*

APPLICATIONS

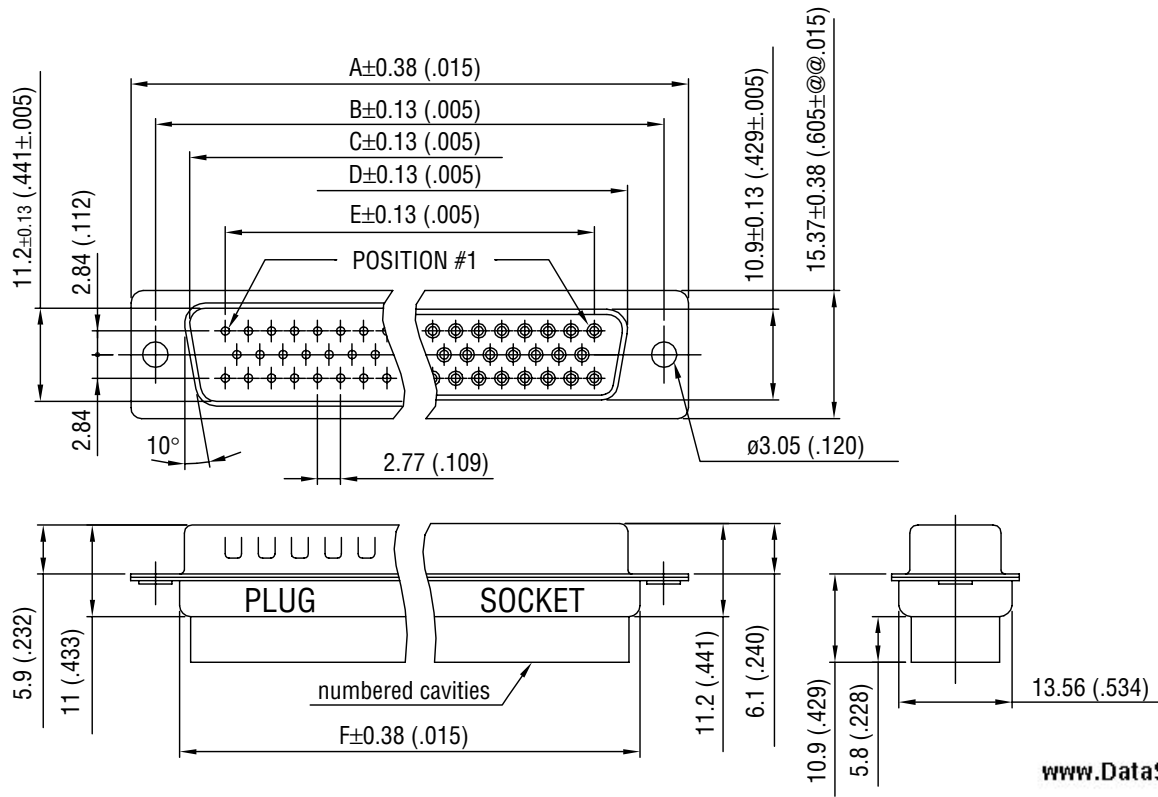
- Industrial
- Telecom
- Any industry standard I / O connections

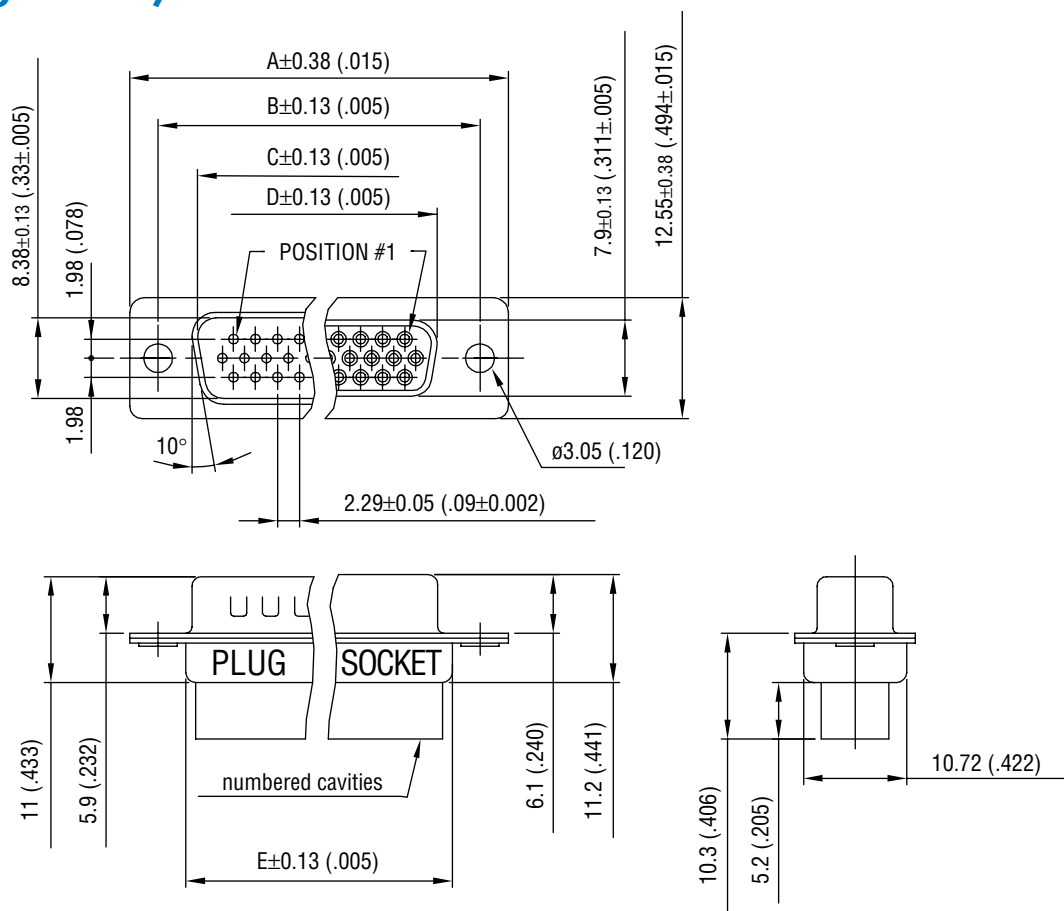
RR-RH

Standard density RR

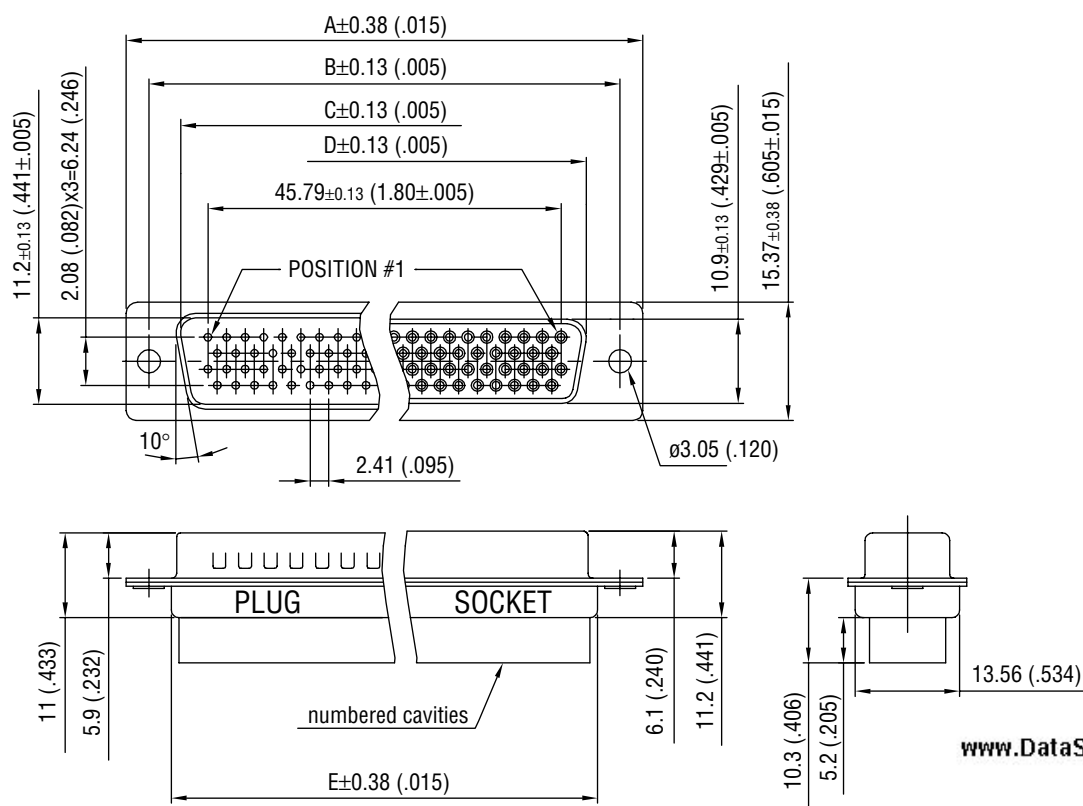


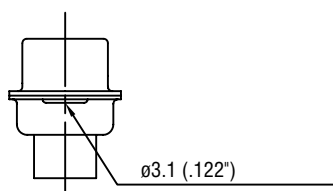
Nb OF CONTACTS	DIMENSIONS mm (inch)					
	A	B	C	D	E	F
9	30.84 (1.21)	24.99 (.98)	16.92 (.67)	16.24 (.64)	11.09 (.44)	19.28 (.76)
15	39.24 (1.54)	33.32 (1.31)	24.7 (.972)	24.56 (.97)	19.39 (.76)	27.51 (1.08)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)	41.30 (1.63)
37	69.32 (2.73)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



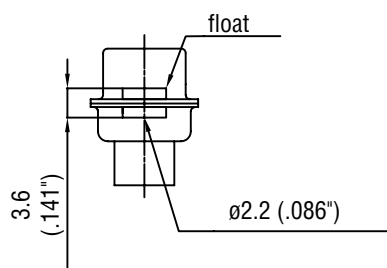
High density HR

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

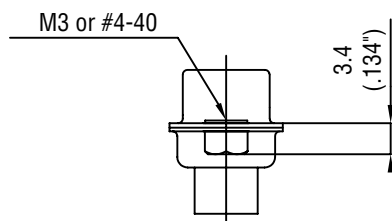


Panel mounting option**Standard density:**

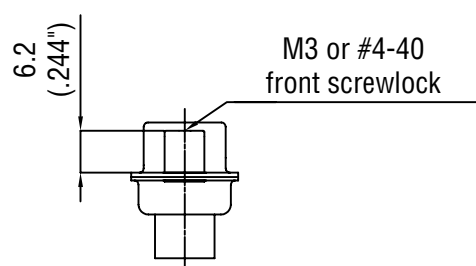
Standard rivet $\varnothing 3.1$ mm
no digit



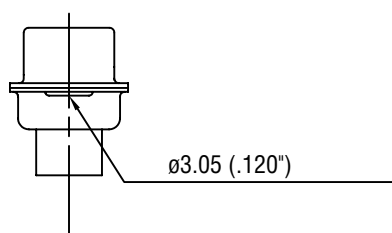
Float mounting
F



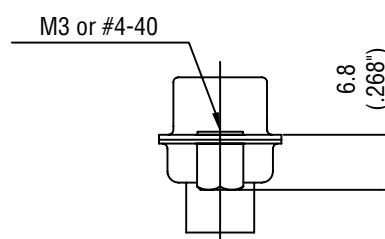
Threaded rear insert
H / G



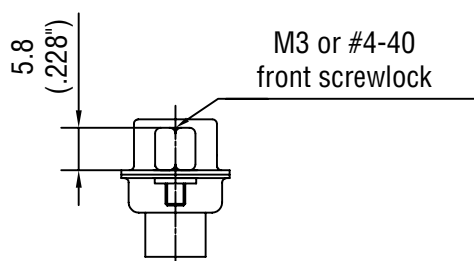
Fixed front female screwlock
VF / VFM

High density:

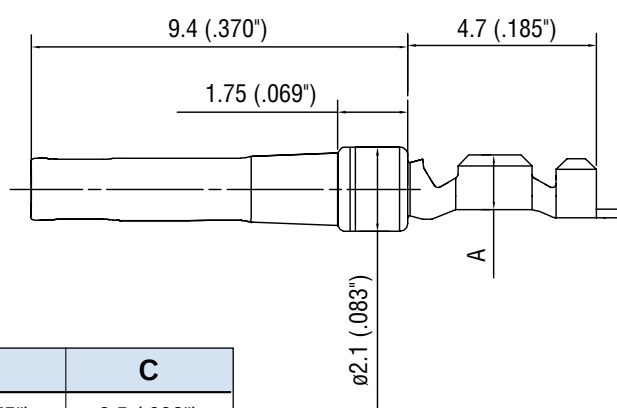
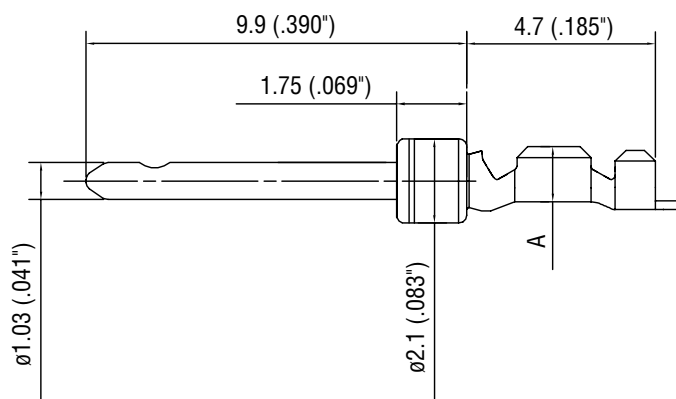
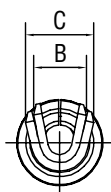
Standard rivet $\varnothing 3.05$ mm
no digit



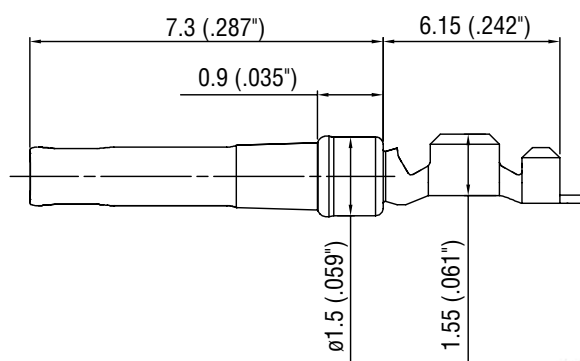
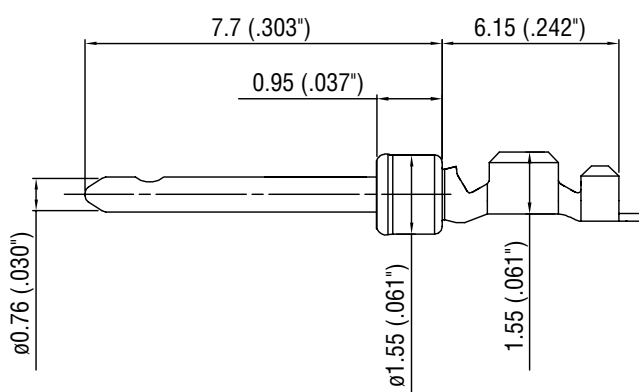
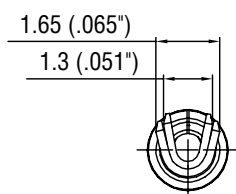
Threaded rear insert
H / G



Fixed front female screwlock
VF / VFM

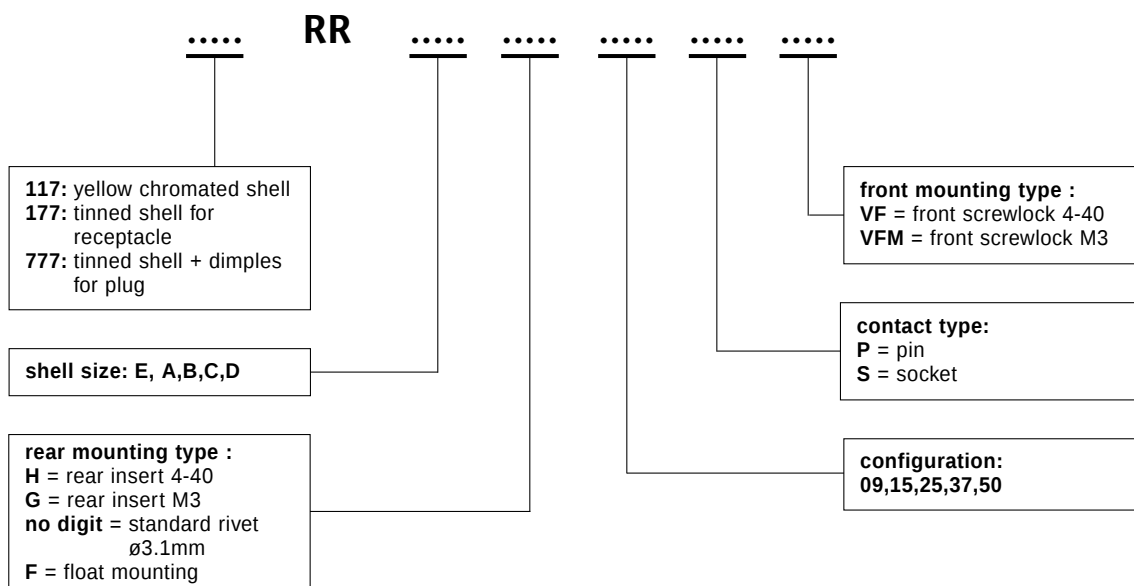
Contacts**Standard density:**

AWG	A	B	C
20-24	1.8 (.071")	1.9 (.075")	2.5 (.098")
24-28	1.4 (.055")	1.5 (.059")	1.7 (.066")

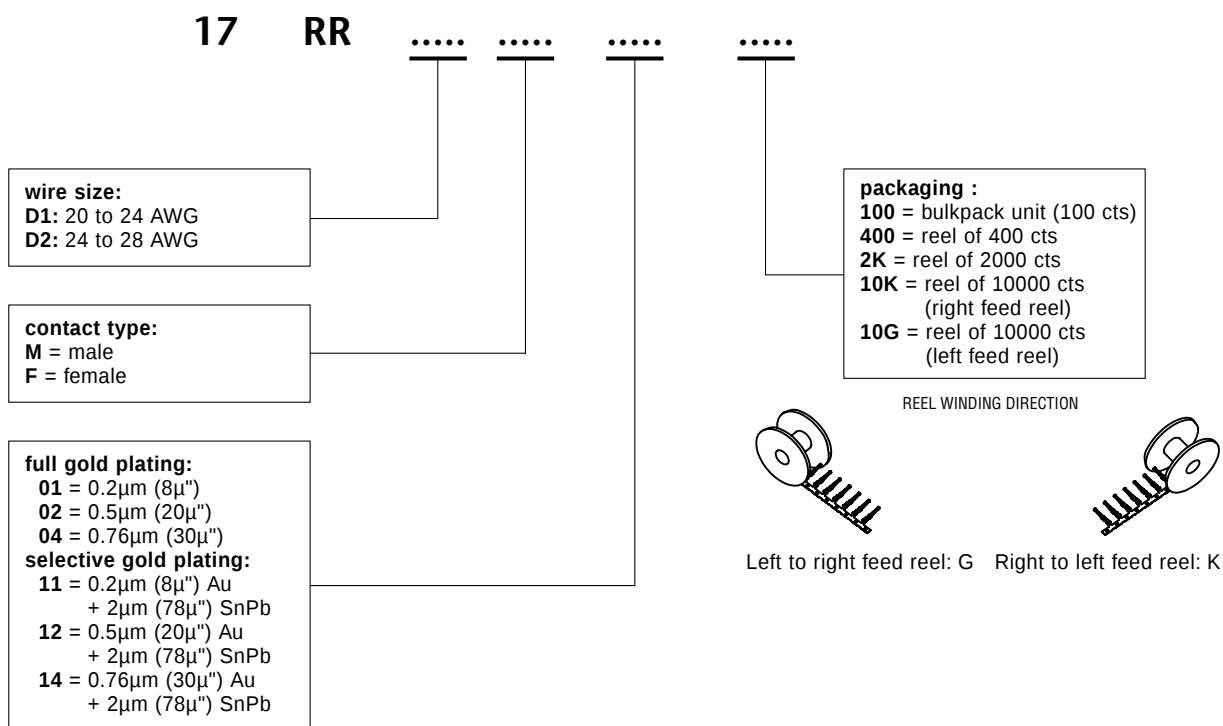
High density:

How to order RR (standard density)

Housings



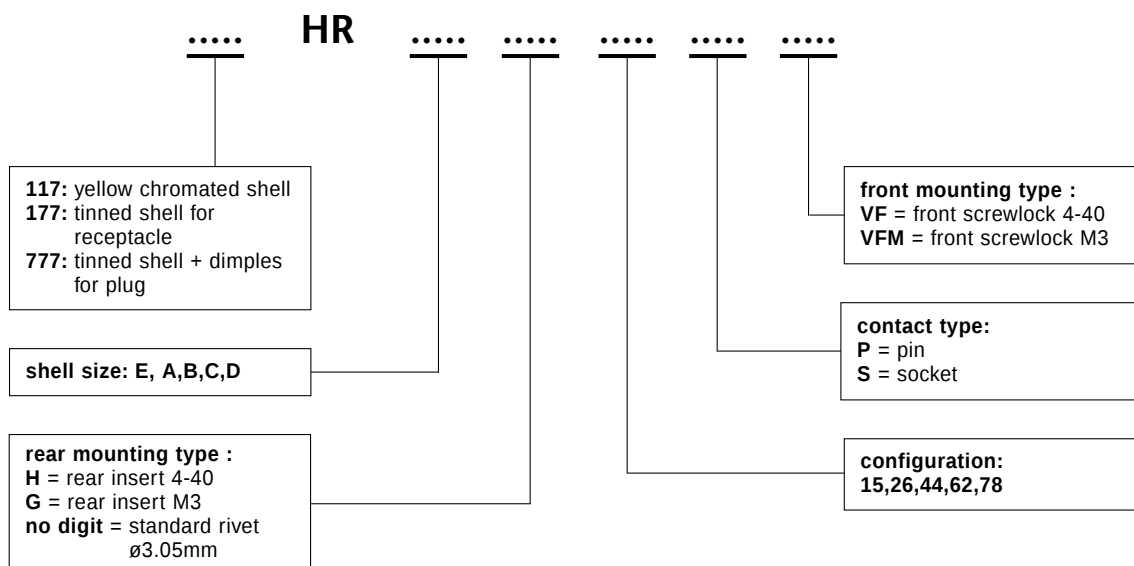
Contacts



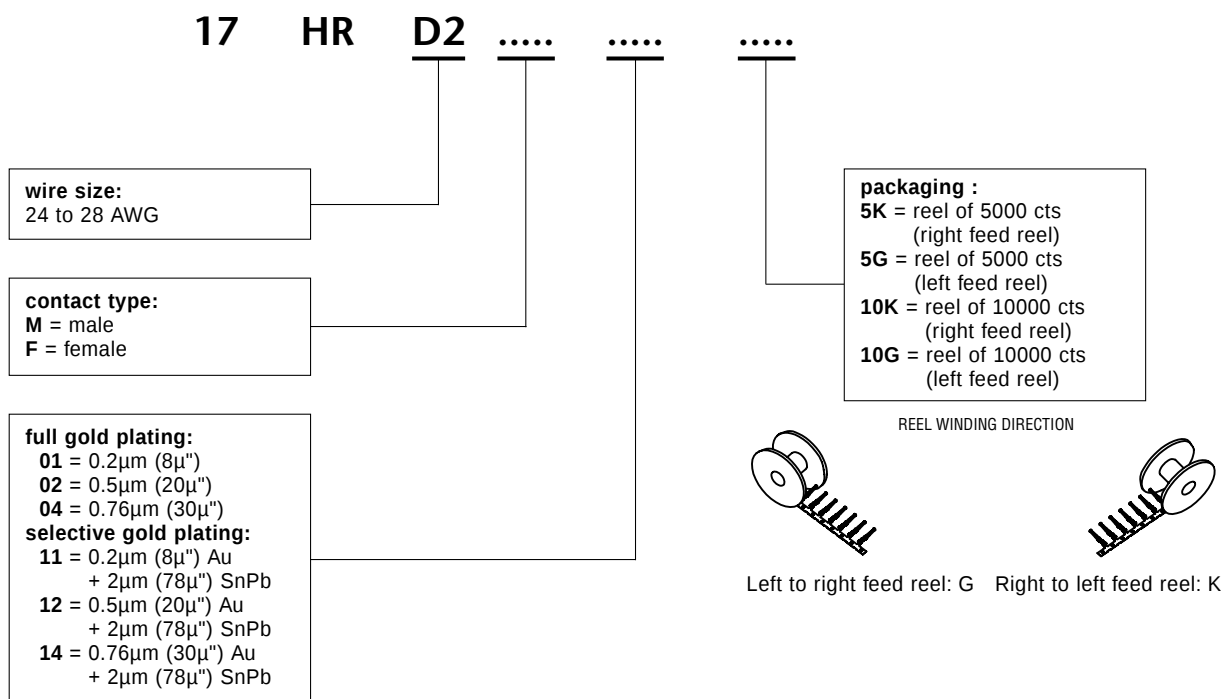
For special request, please consult factory

How to order HR (high density)

Housings



Contacts

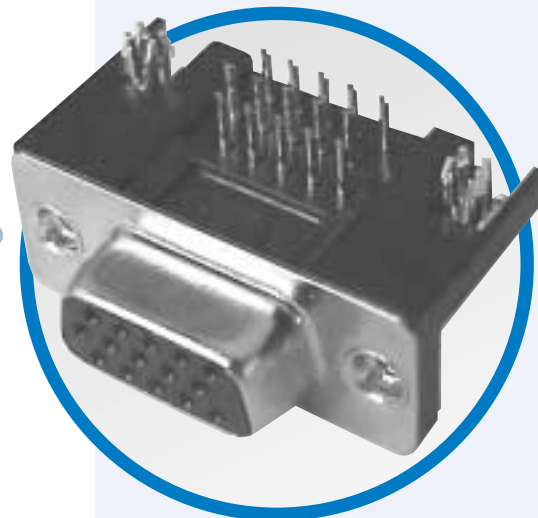


For special request, please consult factory

HD

D-Sub connectors - Stamped and Formed Contacts

RIGHT ANGLE HIGH DENSITY CONNECTORS



MAIN CHARACTERISTICS

Specifications

- UL File : E119881
- Connectors according to MIL C24308

Materials and platings	
Shells	Steel with nickel plating
Insulator	Glass filled thermoplastic, UL 94V-0
Contacts	Copper alloy, selective gold plating
Rear insert	Brass with nickel plating
Screwlock	Brass with nickel plating
Grounding clip	Copper alloy with tin-lead plating

Electrical Data	
Current rating	5A
Voltage rating	600V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	10mΩ max

Climatic Data	
Operating temperature	-55°C to +125°C

Mechanical Data		
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
15	3.81 (8.42)	0.52 (1.14)
26	5.95 (13.16)	1.05 (2.32)
44	9.26 (20.46)	1.37 (3.02)
62	13.48 (29.78)	1.76 (3.88)
Standard plating thicknesses		
• gold flash • 0.4μm (15μ") gold • 0.76 μm (30μ") gold		

DESCRIPTION

Amphenol's high density D-Sub connectors complement Amphenol's extensive D-Sub connector line. This line offers many superior features, high performance level and low installation cost.

The decreased contact spacing accommodates greater signal density in comparison to conventional D-Sub connectors.

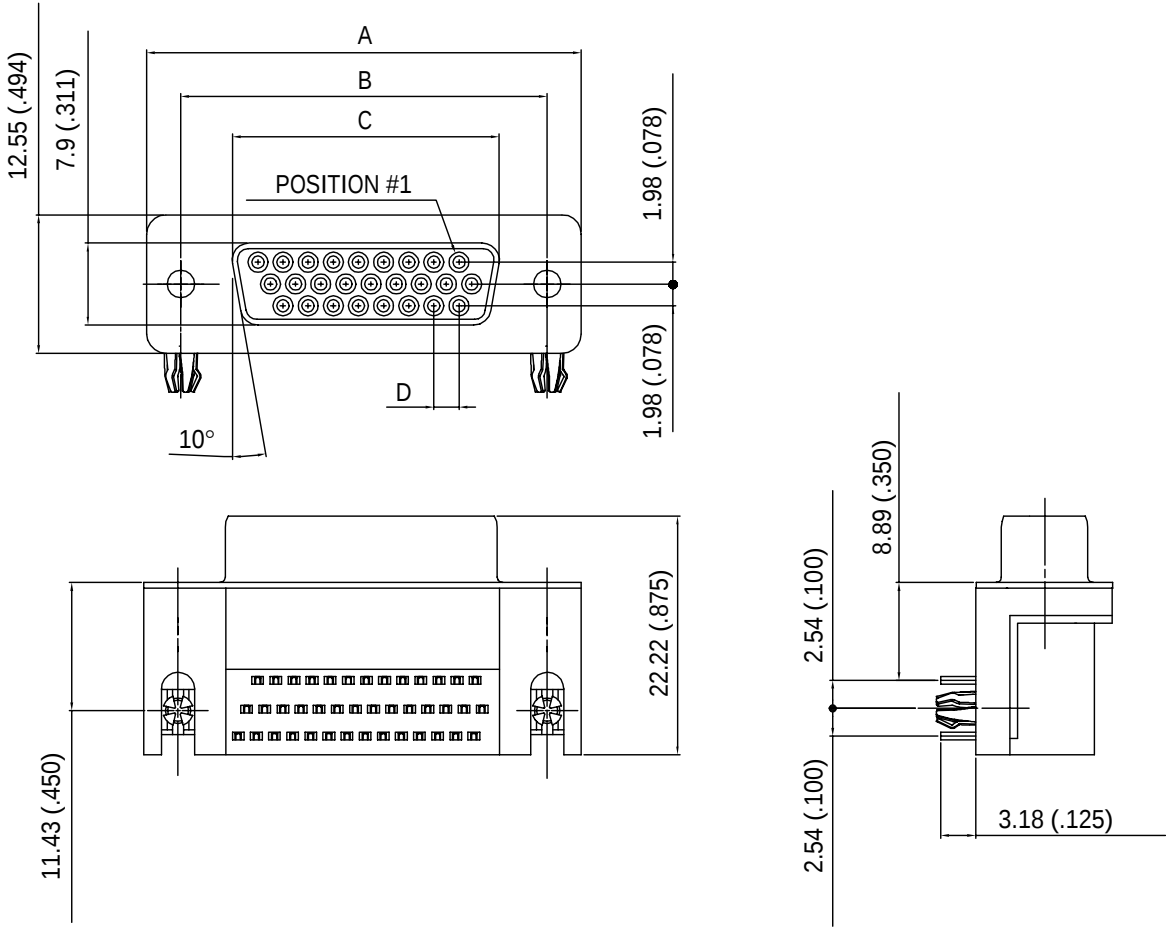
*Economical
right angle PCB*

APPLICATIONS

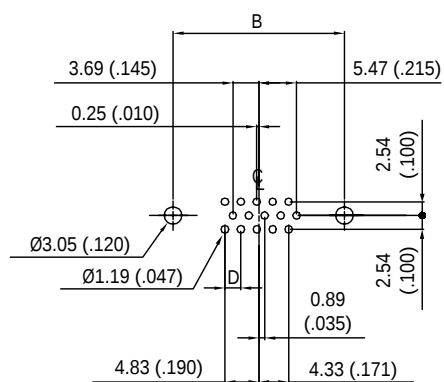
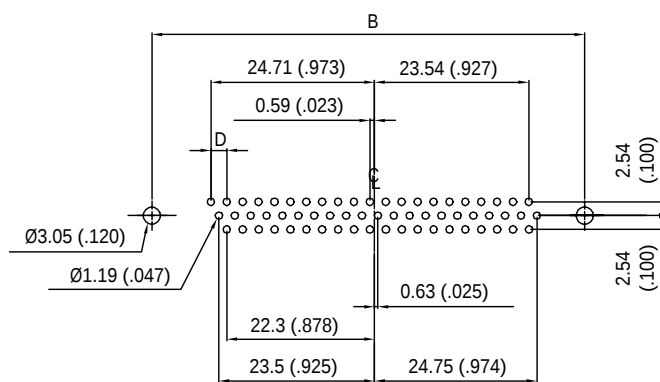
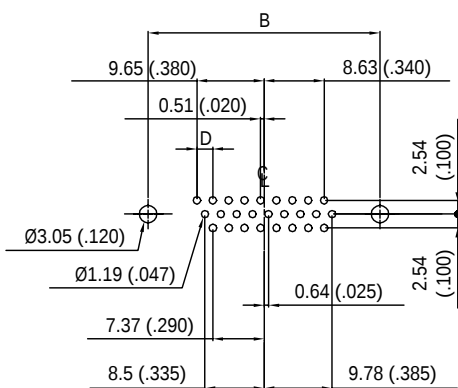
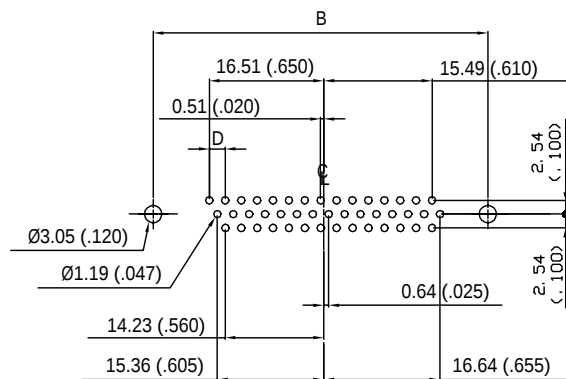
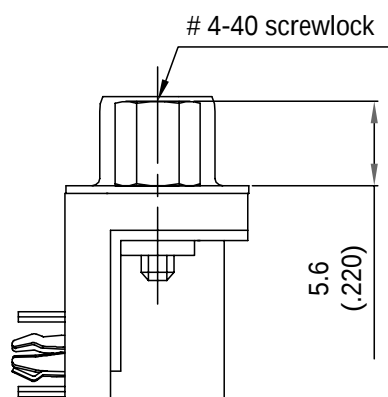
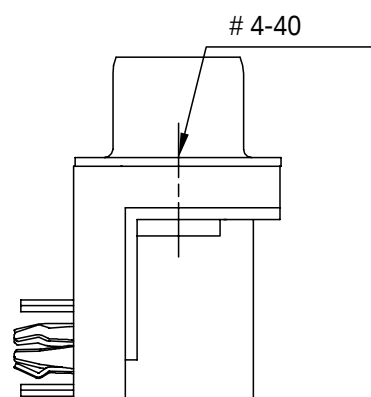
- Industrial
- Telecom
- Any industry standard I / O connections

HD

Shell size dimensions

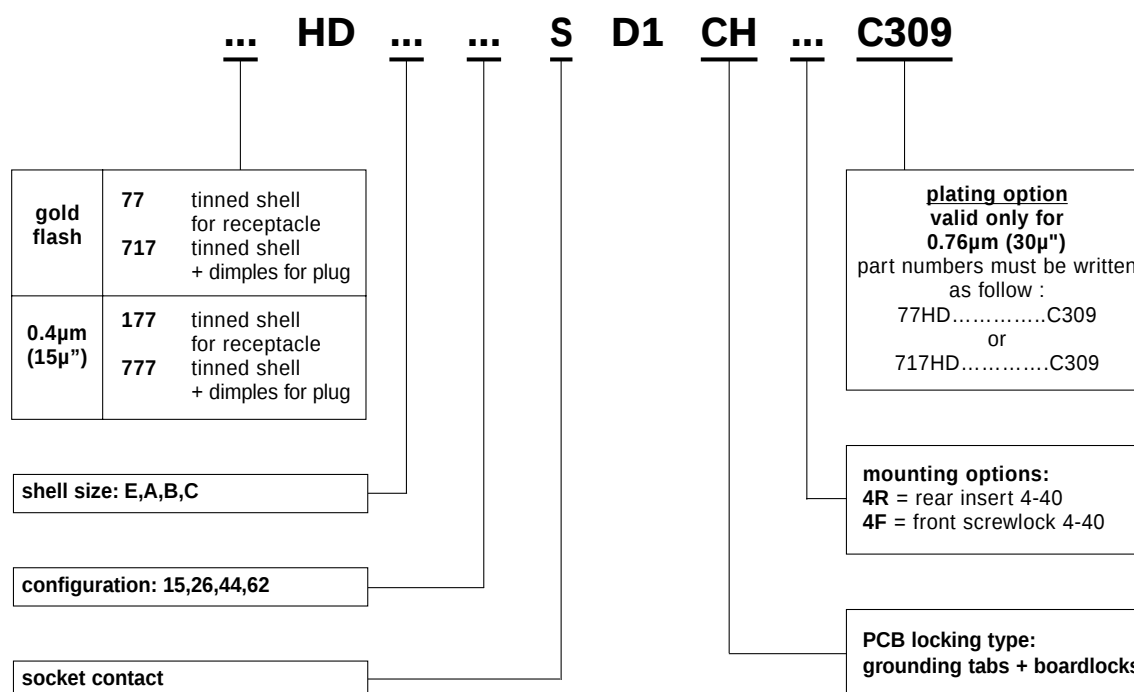


Nb OF CONTACTS	DIMENSIONS mm (inch)			
	A	B	C	D
15	30.84 (1.214)	24.99 (.984)	16.26 (.640)	2.29 (.090)
26	39.24 (1.545)	33.32 (1.312)	24.56 (.967)	2.29 (.090)
44	53.04 (2.088)	47.04 (1.852)	38.30 (1.508)	2.29 (.090)
62	69.34 (2.730)	63.50 (2.500)	54.76 (2.156)	2.41 (.095)

P.C.B. Layout**15 PIN****62 PIN****26 PIN****44 PIN****Panel mounting option****Front female screwlock****4F****Threaded rear insert****4R**

How to order

HOW TO ORDER

***For special request, please consult factory***

Do not hesitate to contact us for further information

Amphenol

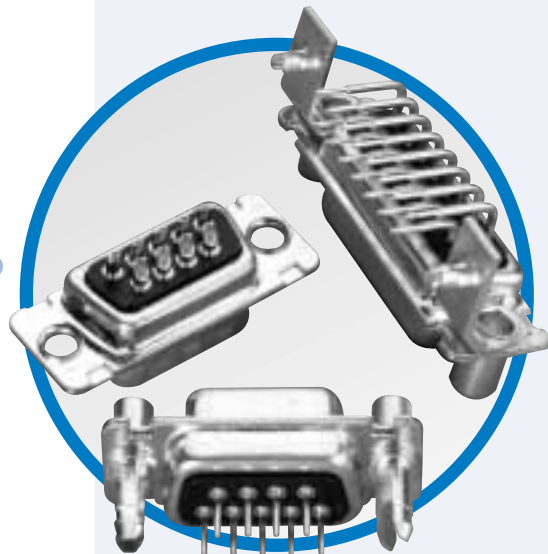
Amphenol Socapex
Telecom Business Unit
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<http://www.dsubconnector.com>
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 Tel.: +33 (0) 3 84 82 94 00

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D-DF

D-Sub connectors - Screw-machined Contacts

FIXED MACHINED CONTACT CONNECTOR



MAIN CHARACTERISTICS

Specifications

- **UL File:** E64911
- **Connectors according to:** MIL C24308 - NFC93425-HE5

Materials and platings	
Shells	Steel yellow chromated over zinc or tinned steel with or without dimples on plug connector
Insulator	Glass-filled thermoplastic, UL 94V-0
Rear insert	Brass, 3µm up to 5µm (118µ" up to 197µ") tinned over nickel 2µm up to 3µm (78µ" up to 118µ")
Boardlock	Tin-lead plating 4µm up to 6µm (157µ" up to 236µ") over nickel 2µm up to 3µm (78µ" up to 118µ")
Screwlock	Brass, 6µm up to 10µm (236µ" up to 394µ") tinned over nickel 2µm up to 3µm (78µ" up to 118µ")
Contacts	D: brass DF: pin = brass socket = copper alloy Right angle version: selective gold in mating area over 2µm up to 3µm (78µ" up to 118µ") nickel; 3µm up to 5µm (118µ" up to 197µ") tin-lead on termination area over 2µm up to 3µm (78µ" up to 118µ") nickel Straight version: full gold plating over 2µm up to 3µm (78µ" up to 118µ") nickel

Electrical Data	
Current rating	7.5 A
Voltage rating	300 V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	D: 8.5mΩ max DF: 5mΩ max

Climatic Data	
Operating temperature	D: -55°C to + 85°C (peaks at 125°C) DF: -55°C to +125°C
Operating temperature	48 hours
Operating temperature	D: 21 days (40°C - 95% HR) DF: 56 days (40°C - 95% HR)

Mechanical Data		
Mating and unmating force Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9 (size E)	3.05 (6.74)	0.36 (0.79)
15 (size A)	5.09 (11.24)	0.46 (1.01)
25 (size B)	8.44 (18.66)	0.81 (1.8)
37 (size C)	12.51 (27.65)	1.1 (2.47)
50 (size D)	14.65 (32.38)	1.6 (3.56)

DESCRIPTION

Amphenol's 17D and 17DF series fixed contact D-Subminiature connector is suitable for industrial or telecom use.

The machined contact provide stability and reliability.

This series offers the broadest range of termination options in the Amphenol line.

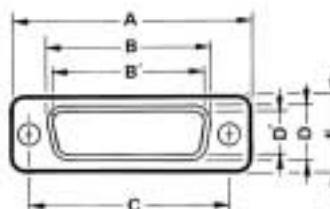
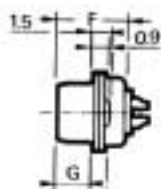
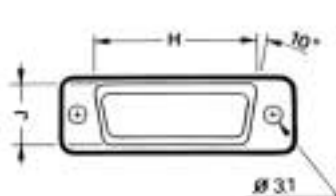
*Connectors
for industrial
and
telecom use*

APPLICATIONS

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

D-DF

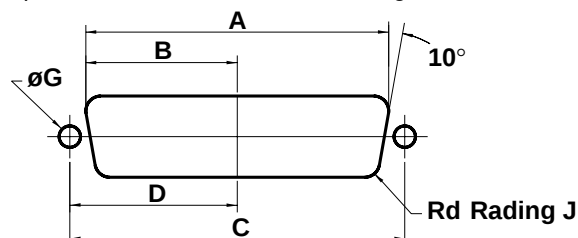
Shell size dimensions



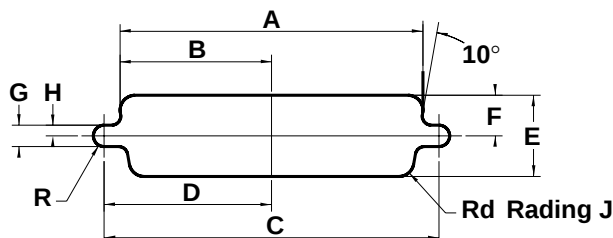
Shell size	Contact P: Pin S: Socket	A ±0.25 (±.010)	B 0/-0.20 (0/- .008)	B' +0.20/0 (+.008/0)	C ±0.10 (±.004)	D 0/-0.25 (0/- .010)	D' +0.25/0 (+.010/0)	E ±0.20 (±.008)	F +0.05/-0.20 (+.002/- .008)	F' +0.10/-0.20 (+.004/- .008)	G +0.10/-0.20 (+.004/- .008)	G' ±0.10 (±.004)	H +0.10/-0.40 (+.004/- .016)	J 0/-0.50 (0/- .020)
E	P	30.7 (1.209")		16.8 (.661")	25.0 (.984")		8.2 (.323")	12.4 (.488")		10.9 (.429")		5.9 (.232")	19.4 (.764")	11.0 (.433")
	S		16.4 (.646")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
A	P	39.0 (1.535")		25.1 (.988")	33.3 (1.311")		8.2 (.323")	12.4 (.488")		10.9 (.429")		5.9 (.232")	27.7 (1.091")	11.0 (.433")
	S		24.8 (.976")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
B	P	52.9 (2.083")		38.8 (1.528")	47.0 (1.850")		8.2 (.323")	12.4 (.488")		11.0 (.433")		5.8 (.228")	41.4 (1.630")	11.0 (.433")
	S		38.5 (1.513")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
C	P	69.2 (2.724")		55.3 (2.177")	63.5 (2.500")		8.2 (.323")	12.4 (.488")		11.0 (.433")		5.8 (.228")	57.9 (2.280")	11.0 (.433")
	S		54.9 (2.161")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
D	P	66.8 (2.630")		52.7 (2.075")	61.1 (2.406")		11.0 (.433")	15.2 (.598")		11.0 (.433")		5.8 (.228")	55.5 (2.185")	13.8 (.543")
	S		52.5 (2.067")			10.9 (.429")			11.1 (.437")		6.2 (.244")			

Panel cutouts

Optimal cutout for rear mounting



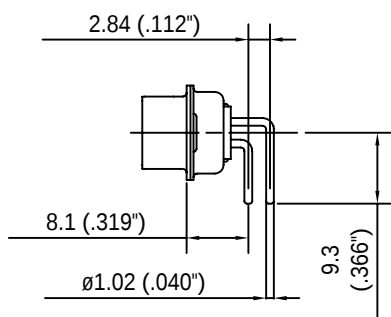
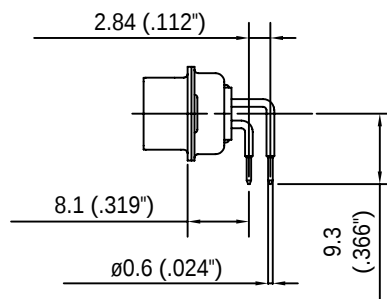
Standard cutout



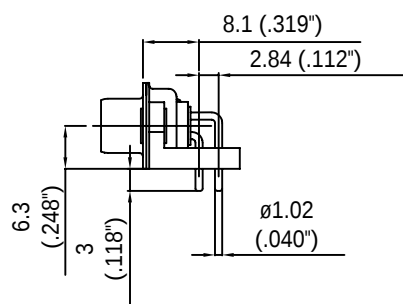
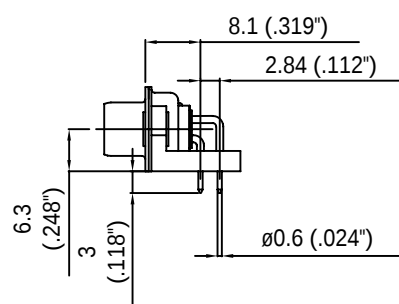
Shell size	Mounting method	A ±0.20 (±.008)	B ±0.20 (±.008)	C ±0.20 (±.008)	D ±0.20 (±.008)	E ±0.20 (±.008)	F ±0.20 (±.008)	G ±0.20 (±.008)	H ±0.20 (±.008)	J ±0.20 (±.008)
E	Front	22.2 (.874")	11.1 (.437")	25.0 (.984")	12.5 (.492")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	20.5 (.807")	10.2 (.402")			11.4 (.449")	5.7 (.224")			3.4 (.134")
A	Front	30.5 (1.201")	15.3 (.602")	33.3 (1.311")	16.7 (.657")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	28.8 (1.134")	14.4 (.567")			11.4 (.449")	5.7 (.224")			3.4 (.134")
B	Front	44.3 (1.744")	22.1 (.870")	47.0 (1.850")	23.5 (.925")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	42.5 (1.673")	21.3 (.839")			11.4 (.449")	5.7 (.224")			3.4 (.134")
C	Front	60.7 (2.390")	30.4 (1.197")	63.5 (2.500")	31.7 (1.248")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	59.1 (2.327")	29.5 (1.161")			11.4 (.449")	5.7 (.224")			3.4 (.134")
D	Front	58.3 (2.295")	29.2 (1.150")	61.1 (2.406")	30.6 (1.205")	15.8 (.622")	7.9 (.311")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	56.3 (2.217")	28.2 (1.110")			14.1 (.555")	7.1 (.280")			3.4 (.134")

Termination**Right angle:****MIL Footprint**

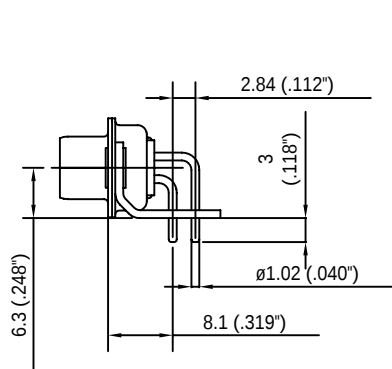
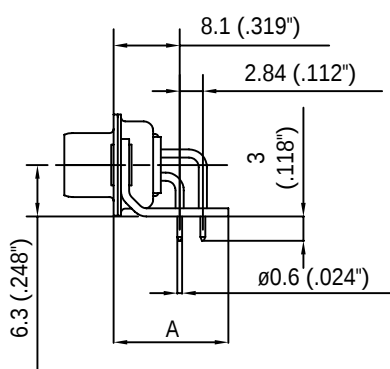
without bracket:

**C****A4**

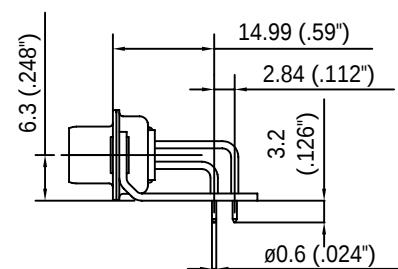
plastic bracket:

**AJ3****AJ4**

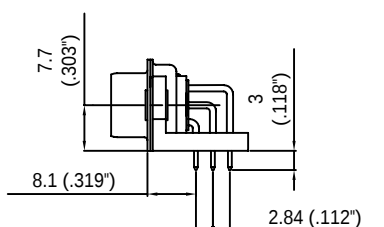
metal bracket:

**A**

AM4 : A=13.2mm
AZ4 : A=11.5mm

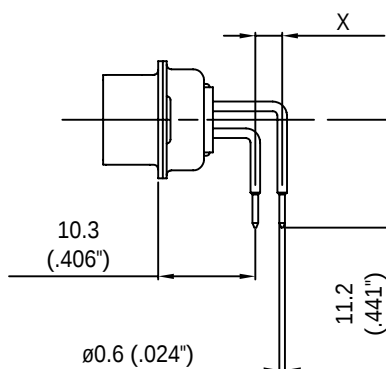
**AM4B**

50 contacts:



Termination**European footprint**

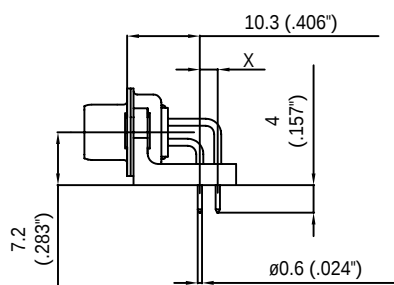
without bracket:



1AON : X=2.54 mm

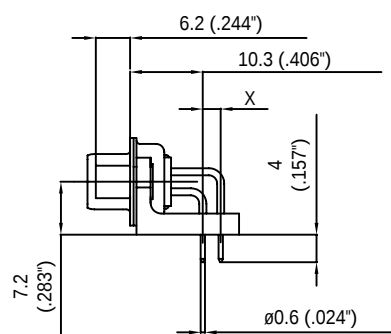
1BON : X=2.84 mm

plastic bracket:



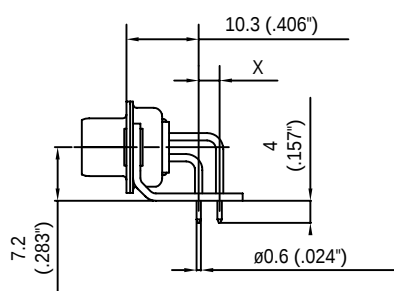
1APN : X=2.54 mm

1BPN : X=2.84 mm



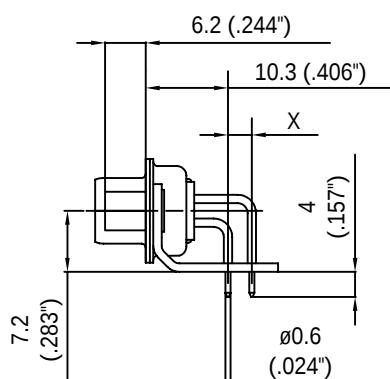
1AUN : X=2.54 mm

1BUN : X=2.84 mm



1AMN : X=2.54 mm

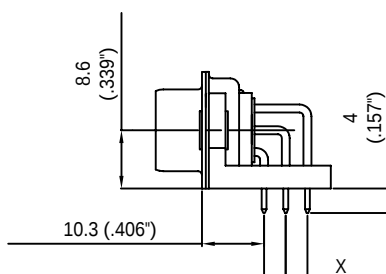
1BMN : X=2.84 mm

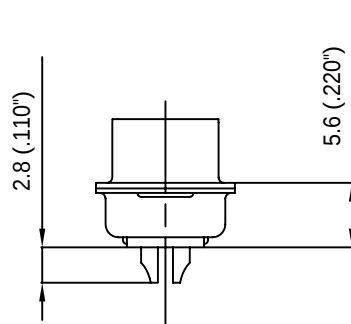
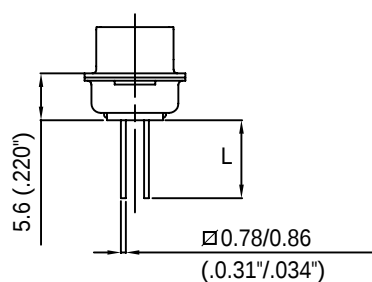


1ATN : X=2.54 mm

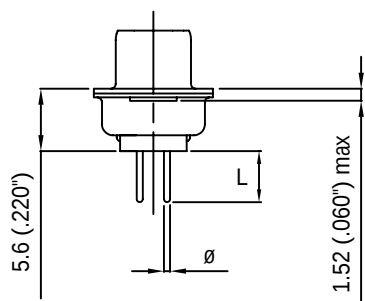
1BTN : X=2.84 mm

50 contacts:



Termination**Solder Cup:****Wire Wrap:**

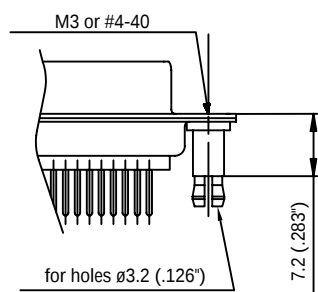
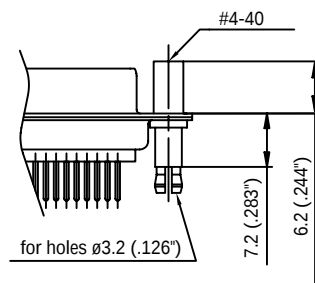
termination	Nb of wraps	L
F179	2	9.6mm (.378")
F179A	3	13mm (.512")

Straight PCB:

termination	Ø	L
U	0.6mm (.024")	3.2mm (.126")
V	1.02mm (.040")	2.4mm (.095")
T	0.6mm (.024")	4mm (.157")
OL2	0.6mm (.02")	5.5mm (.217")

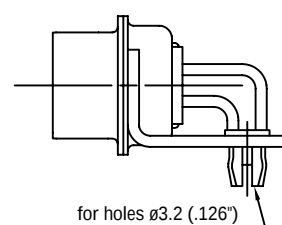
Grounding tabs

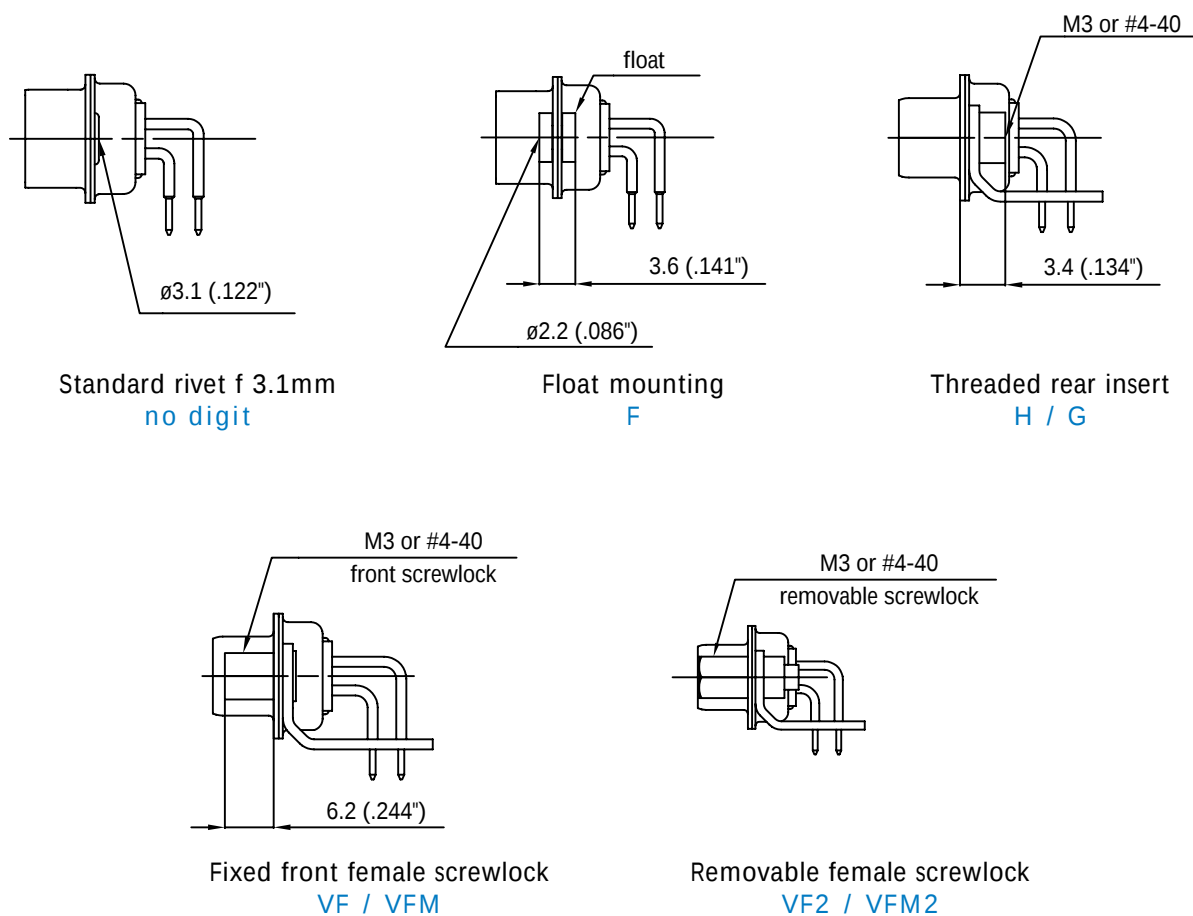
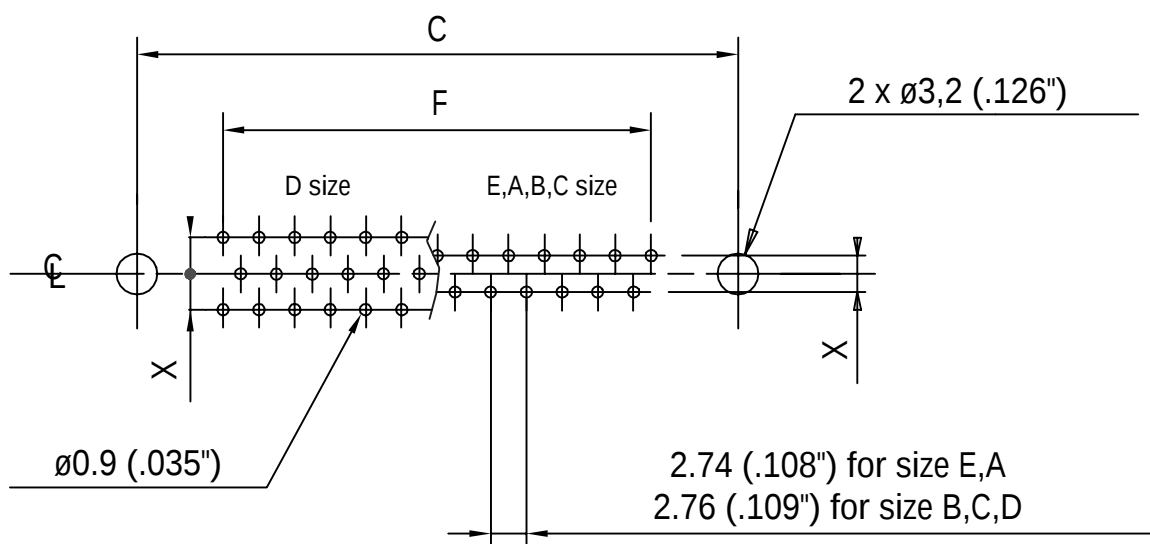
For straight termination

**RM5****RM8**

For R/A termination

FOR PCB 1.6

**RM6**

Panel mounting option**For straight and R/A termination****Recommended PCB Layout**

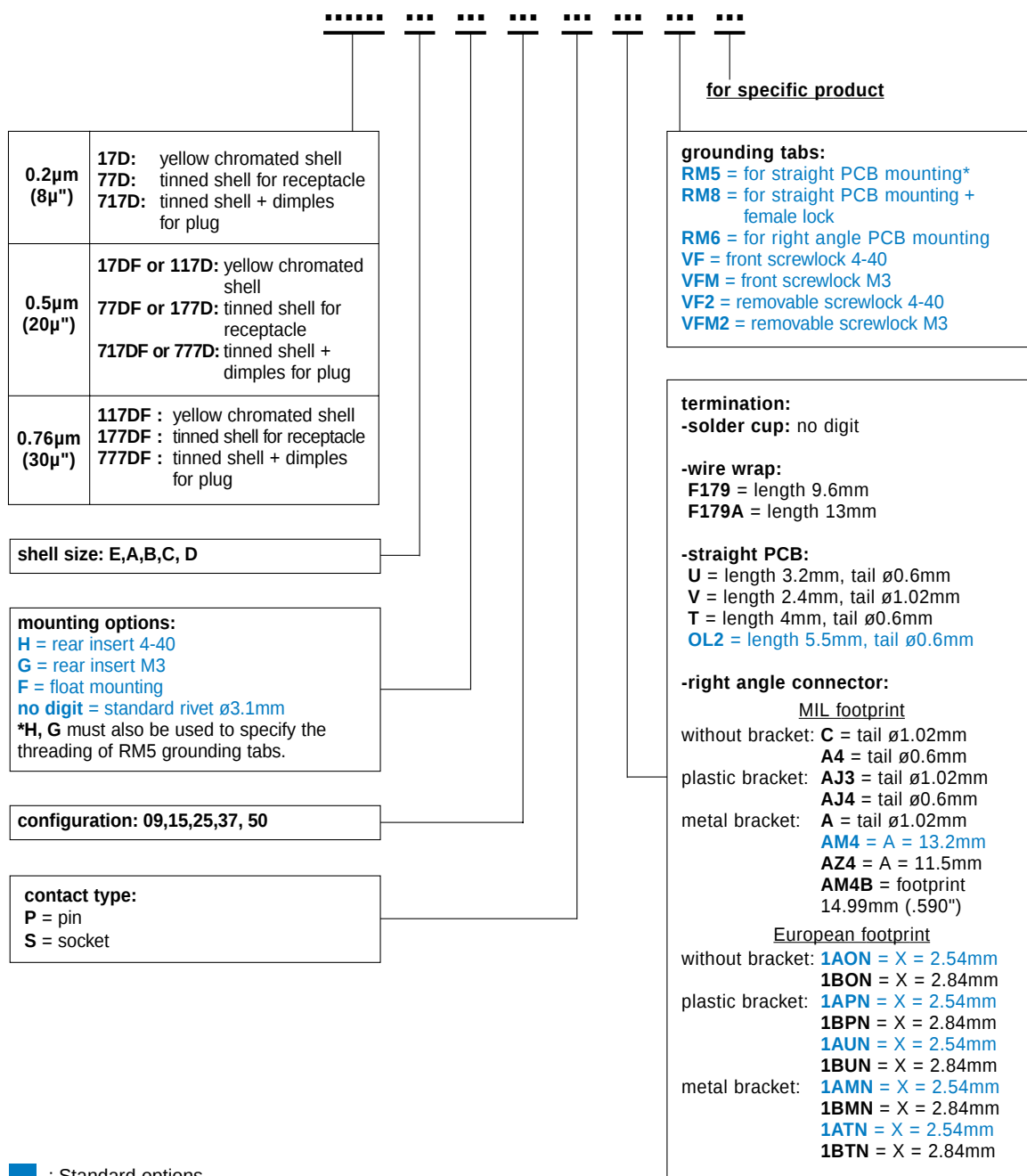
For straight PCB: X = 2.84mm (.112")

For right angle PCB: MIL: X = 2.84mm (.112")

European: X = 2.54mm (.100"), 2.84mm in option

	size E	size A	size B	size C	size D
C ±0,1 (.004)	25 (.984)	33.3 (1.311)	47 (1.85)	63.5 (2.5)	61.1 (2.406)
F ±0,05 (.002)	10.96 (.431)	19.18 (.755)	33.12 (1.304)	49.68 (1.956)	44.2

How to order



■ : Standard options

For special request, please consult factory

Specifications

UL file: E64911 - CSA file: LR57744

Connectors according to: MIL C24308 - NFC93425 - HE507

Materials and platings		Electrical Data	
Shells	Steel - Tin plating or yellow chromate	Current rating	
Insulators	High temperature black thermoplastic	Signal contacts	7.5 A. with 10 A. peaks
Signal contacts	Female: machined bronze	Power contacts	
Material	Male: machined brass	PCB terminations	10 to 40 A.
Plating finish	16µ "Au over 79µ" Ni min.	Solder cup terminations	10 to 40 A.
Or	30µ "Au over 79µ" Ni min.	Crimp terminations	10 to 40 A.
Shielded contacts	Female: machined bronze	Shielded contacts	0.5 A.
Material	Male: machined brass	Voltage rating	
Plating		Signal and power contacts	300 V. R. M. S. at 50 Hz
Inner conductor	16µ "Au or 30µ Au over 79µ" Ni	Shielded contacts	150 V. R. M. S. at 50 Hz
Outer ring	10µ "Au over 79µ" Ni	Shielded contacts	
Terminations	Tinned	Frequency range	0 - 1 GHz
Except solder cup and crimp terminations	gold flash	Attenuation	0.2 dB
Power contacts	Female: machined bronze	V.S.W.R.	1.4 (+ 0.04/GHz)
Material	Male: machined brass	Characteristic impedance	50 Ohms
Plating		Dielectric withstanding voltage	≥ 1000 V.R.M.S. at 50Hz
Contacts	16µ "Au or 30µ" Au over 79µ" Ni	Insulation resistance	≥ 5000 M Ohms at 500 VDC
Terminations	Tinned	Contact resistance	≤ 5m Ohms
Except solder cup and crimp terminations	gold flash	Shell resistance (electrical grounding)	≤ 1m Ohm
Brackets	Steel - Tin plating or yellow chromate		
Front jackscrews	Brass - Tin plating or yellow chromate		
Rear clinch nuts	Brass - Tin plating or yellow chromate		
Boardlocks	Bronze - Tin plating		
Stand - off	Brass - Tin plating		

Climatic Data		Mechanical data	
Operating temperature	- 55°C + 155°C (with peaks up to 180°C)	Shells	With or without dimples
Damp heat	56 days (40°C - 95% HR)	Contact retention force in dielectric material	> 40N
Salt spray	48 hours	Maximum mating and unmating force	
		With dimples	E size = 70 N A size = 80 N B size = 100 N C size = 150 N D size = 180 N E size = 30 N A size = 50 N B size = 80 N C size = 120 N D size = 160 N
		Without dimples	
		Compatible with process	
		IR - Air convectioned	260° for 20 s.
		Resistance to solder iron heat	260° C for 30 s.
		Mating cycles	≥ 200 (classe II) or 500 (classe I)
		Blind mating system	Available upon request
		Polarization	Available with locking accessories Consult factory

The new Amphenol D'Sub TW Hybrid Series permits a mix of contacts including signal, power, shielded, high voltage and fiber optics in the same housing with 18 different contacts arrangements.

This new economic series was developed from combination military series, and has improved features:

- new contacts
- new high temperature black thermoplastic insert
- PCB configurations come preloaded with fixed contacts and brackets.

These connectors are supplied with screw - machined contacts which are fixed in the insulator.

A complete range of housings in also available for cable application.

A full range of arrangements compatible with reflow process

- Industrial
- Military
- Telecom
- Any application requiring optimization of space

Shells and contacts plating

CLASS II

0.4µm (16µ") Au contacts gold plating
200 mating cycles

Types	Shells and plating
17 TW	Yellow chromated shell Male and female
77 TW	Tin plated shell Male and female
717 TW	Tin plated shell with dimples Male only
	NOTE: Tin plated shells standard

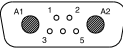
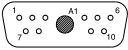
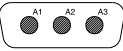
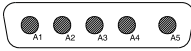
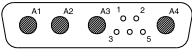
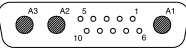
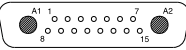
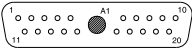
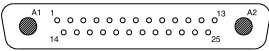
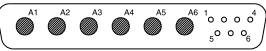
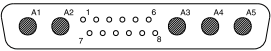
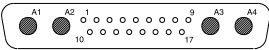
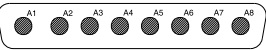
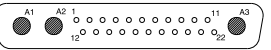
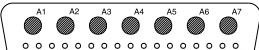
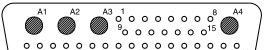
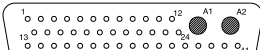
CLASS I

0.76µm (30µ") Au contacts gold plating
500 mating cycles

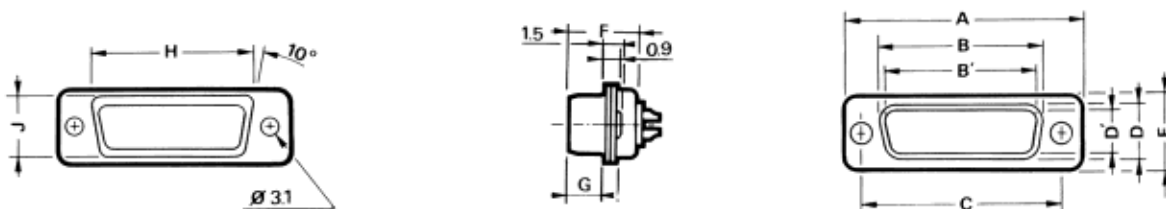
Types	Shells and plating
117 TW	Yellow chromated shell Male and female
177 TW	Tin plated shell Male and female
777 TW	Tin plated shell with dimples Male only
	NOTE: Tin plated shells standard

Housing arrangements

Male front view

Arrangement Shell size	 5W1 E	 7W2 A	 11W1 A
Arrangement Shell size	 3W3 A	 5W5 B	 9W4 B
Arrangement Shell size	 13W3 B	 17W2 B	 21W1 B
Arrangement Shell size	 27W2 C	 13W6 C	 17W5 C
Arrangement Shell size	 21WA4 C	 8W8 C	 25W3 C
Arrangement Shell size	 24W7 D	 36W4 D	 43W2 D

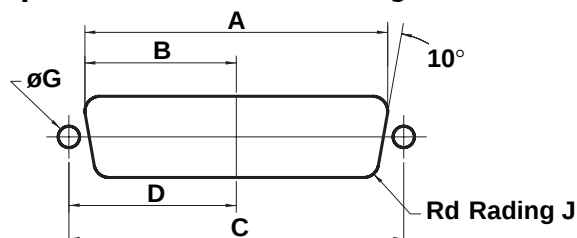
Shell size dimensions



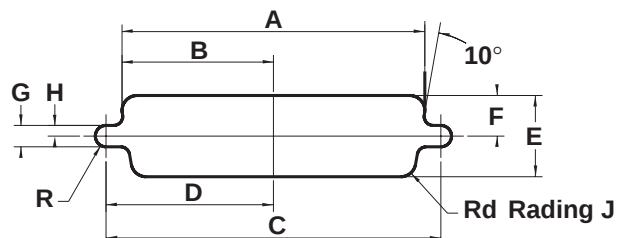
Shell size	Contact P: Pin S: Socket	A ±0.25 (±0.10)	B 0/-0.20 (0/-0.08)	B' +0.20/0 (+0.08/0)	C ±0.10 (±0.04)	D 0/-0.25 (0/-0.10)	D' +0.25/0 (+0.10/0)	E ±0.20 (±0.08)	F +0.05/-0.20 (+0.02/-0.08)	F' +0.10/-0.20 (+0.04/-0.08)	G +0.10/-0.20 (+0.04/-0.08)	G' ±0.10 (±0.04)	H +0.10/-0.40 (+0.04/-0.16)	J 0/-0.50 (0/-0.20)
E	P	30.7 (1.209")		16.8 (.661")	25.0 (.984")		8.2 (.323")	12.4 (.488")		10.9 (.429")		5.9 (.232")	19.4 (.764")	11.0 (.433")
	S		16.4 (.646")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
A	P	39.0 (1.535")		25.1 (.988")	33.3 (1.311")		8.2 (.323")	12.4 (.488")		10.9 (.429")		5.9 (.232")	27.7 (1.091")	11.0 (.433")
	S		24.8 (.976")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
B	P	52.9 (2.083")		38.8 (1.528")	47.0 (1.850")		8.2 (.323")	12.4 (.488")		11.0 (.433")		5.8 (.228")	41.4 (1.630")	11.0 (.433")
	S		38.5 (1.513")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
C	P	69.2 (2.724")		55.3 (2.177")	63.5 (2.500")		8.2 (.323")	12.4 (.488")		11.0 (.433")		5.8 (.228")	57.9 (2.280")	11.0 (.433")
	S		54.9 (2.161")			8.0 (.315")			11.1 (.437")		6.2 (.244")			
D	P	66.8 (2.630")		52.7 (2.075")	61.1 (2.406")		11.0 (.433")	15.2 (.598")		11.0 (.433")		5.8 (.228")	55.5 (2.185")	13.8 (.543")
	S		52.5 (2.067")			10.9 (.429")			11.1 (.437")		6.2 (.244")			

Panel cutouts

Optimal cutout for rear mounting

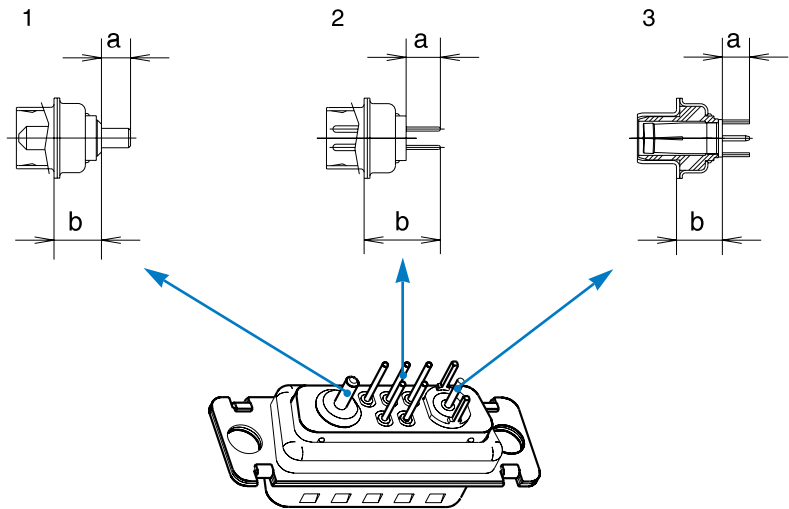


Standard cutout



Shell size	Mounting method	A ±0.20 (±0.08)	B ±0.20 (±0.08)	C ±0.20 (±0.08)	D ±0.20 (±0.08)	E ±0.20 (±0.08)	F ±0.20 (±0.08)	G ±0.20 (±0.08)	H ±0.20 (±0.08)	J ±0.20 (±0.08)
E	Front	22.2 (.874")	11.1 (.437")	25.0 (.984")	12.5 (.492")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	20.5 (.807")	10.2 (.402")			11.4 (.449")	5.7 (.224")			3.4 (.134")
A	Front	30.5 (1.201")	15.3 (.602")	33.3 (1.311")	16.7 (.657")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	28.8 (1.134")	14.4 (.567")			11.4 (.449")	5.7 (.224")			3.4 (.134")
B	Front	44.3 (1.744")	22.1 (.870")	47.0 (1.850")	23.5 (.925")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	42.5 (1.673")	21.3 (.839")			11.4 (.449")	5.7 (.224")			3.4 (.134")
C	Front	60.7 (2.390")	30.4 (1.197")	63.5 (2.500")	31.7 (1.248")	13.0 (.512")	6.5 (.256")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	59.1 (2.327")	29.5 (1.161")			11.4 (.449")	5.7 (.224")			3.4 (.134")
D	Front	58.3 (2.295")	29.2 (1.150")	61.1 (2.406")	30.6 (1.205")	15.8 (.622")	7.9 (.311")	3.0 (.118")	1.5 (.059")	2.1 (.083")
	Rear	56.3 (2.217")	28.2 (1.110")			14.1 (.555")	7.1 (.280")			2.1 (.083")

Straight connector footprint



Signal tail 0.6 mm Dia. (.0236")
1.6 mm (.063")PCB
For other PCB thickness: consult factory.

Description		Dimensions	
		a	b
Power (.126" tail dia.)	1	4.50 mm (.177")	7.2 mm (.283")
Power (.0787" tail dia.)	1	4.50 mm (.177")	7.2 mm (.283")
Shielded	3	4.00 mm (.157")	7.2 mm (.283")
Signal	2	5.00 mm (.196")	11.50 mm (.453")

Straight contact combinations

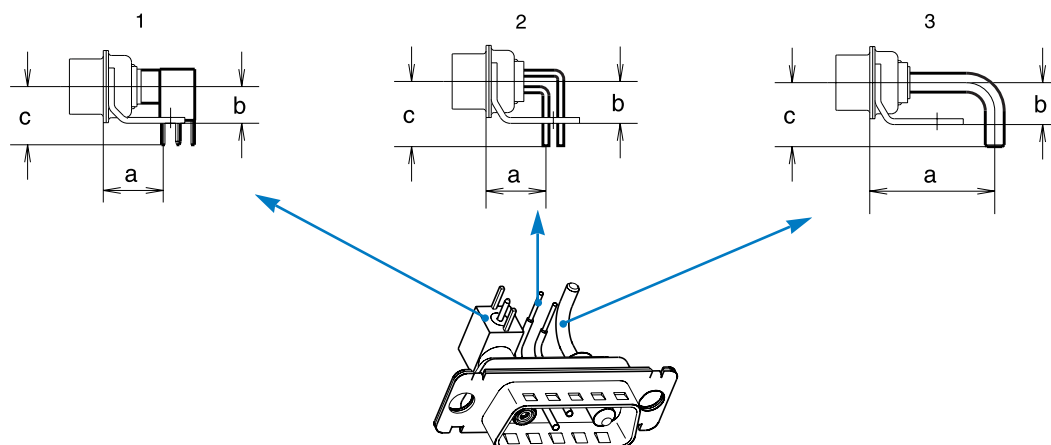
Arrangement with signal contacts

See above dimensions	Size 8 and 20 Contacts
↓	
P 3SY	Power 3.2 mm DIA. (.126") (20 to 40 A) and signal
P 2SY	Power 2 mm DIA. (.0787") (10 to 20 A) and signal
CSY	Shielded and signal
SY	Signal only
No reference	Signal (Size 20) with solder cup terminations Housing preloaded with contacts

Arrangement without signal contacts
3W3 - 5W5 - 8W8

See above dimensions	Size 8 Contacts
↓	
P 3Y	Power only 3.2 mm DIA. (.126") (20 to 40 A)
P 2Y	Power only 2 mm DIA. (.0787") (10 to 20 A)
CY	Shielded only

Right angle connector footprint



Signal tail 0.6 mm Dia. (.0236")
1.6 mm (.063") PCB
For other PCB thickness: consult factory.

Description		Europe			Mix			MIL		
		HE 5 pattern = - Europ. height - Europ. footprint <i>pitch between 2 rows: .100"</i>			Mixed pattern = - MIL height - Europ. footprint <i>pitch between 2 rows: .100"</i>			MIL pattern = - MIL height - MIL footprint <i>pitch between 2 rows: .112"</i>		
		a	b	c	a	b	c	a	b	c
Power (.0787" tail dia.)	1	11.57mm (.456")	7.20mm (.283")	10.50mm (.413")	11.57mm (.456")	6.30mm (.248")	9.50mm (.374")	9.52mm (.375")	6.30mm (.248")	9.50mm (.374")
Power (.126" tail dia.)	1	21.46mm (.845")	7.20mm (.283")	10.50mm (.413")	21.46mm (.845")	6.30mm (.248")	9.50mm (.374")	21.46mm (.845")	6.30mm (.248")	9.50mm (.374")
Shielded	2	-	-	-	10.30mm (.406")	6.30mm (.248")	10.00mm (.394")	10.30mm (.406")	6.30mm (.248")	10.00mm (.394")
Signal	3	10.30mm (.406")	7.20mm (.283")	11.20mm (.441")	10.30mm (.406")	6.30mm (.248")	9.50mm (.374")	8.10mm (.319")	6.30mm (.248")	9.50mm (.374")

Note: above dimensions correspond to sizes E to C. Consult factory for D sizes.

Connector comes equipped with contacts and brackets.

Right angle contacts combinations

Arrangements with signal contacts

European footprint	Mixed footprint	MIL (U.S.) footprint	Size 8 and 20 contacts
↓	↓	↓	
EP3SV	HP3SV	MP3SV	Power 3.2 mm DIA. (.126") (20 to 40 A) and signal
EP2SV	HP2SV	MP2SV	Power 2 mm DIA. (.0787") (10 to 20 A) and signal
-	HCSV	MCSV	Shielded and signal
ESV	HSV	MSV	Signal only

Arrangement without signal contacts

3W3 - 5W5 - 8W8

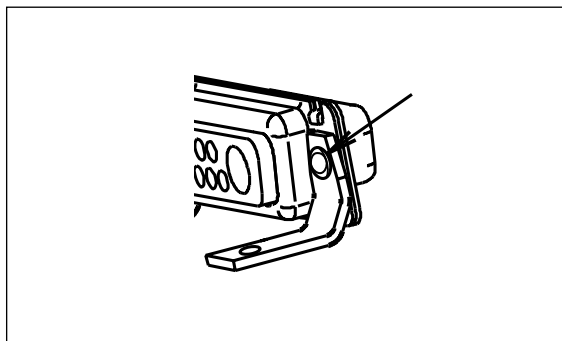
European footprint	Mixed footprint	MIL (U.S.) footprint	Size 8 contacts only
↓	↓	↓	
EP3V	HP3V	MP3V	Power only 3.2 mm DIA. (.126") (20 to 40 A)
EP2V	HP2V	MP2V	Power only 3.2 mm DIA. (.126") (10 to 20 A)
-	HCV	MCV	Shielded only

Mounting options

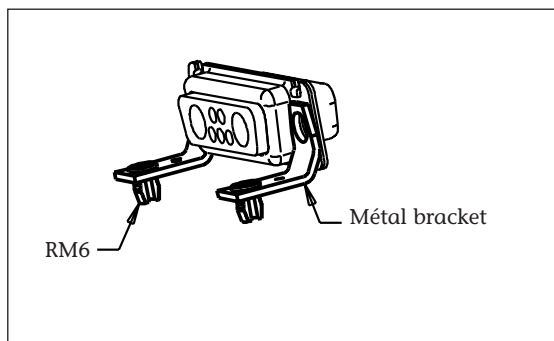
Right angle version

Connectors come equiped with metal brackets

BLANK: 3,10 (.122") dia mounting hole

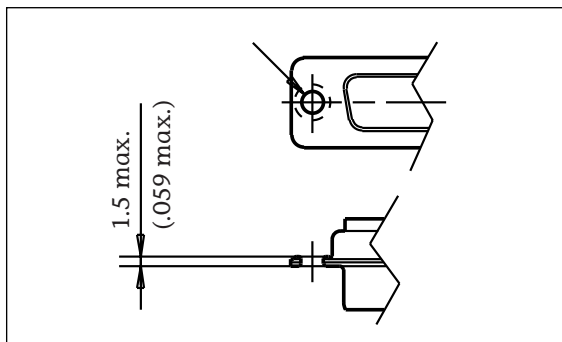


RM6: metal brackets + boardlock

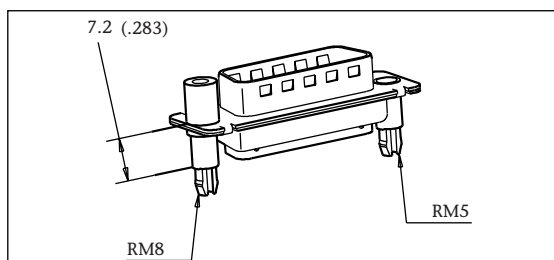


Straight version

BLANK: 3,10 (.122") dia mounting hole

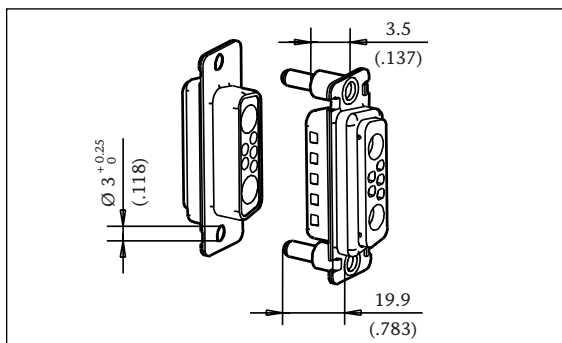


RM54: RM5 4.40 threaded
RM53: RM5 M3 threaded

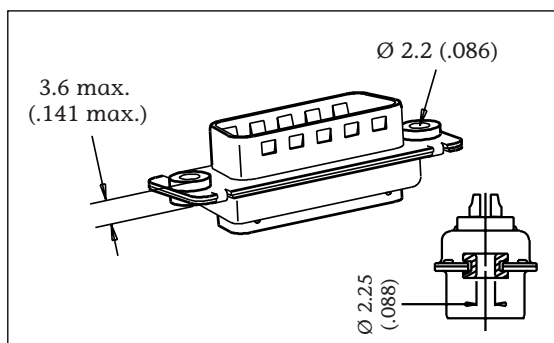


RM84: RM8 4.40 threaded
RM83: RM8 M3 threaded

A514: blind mating system



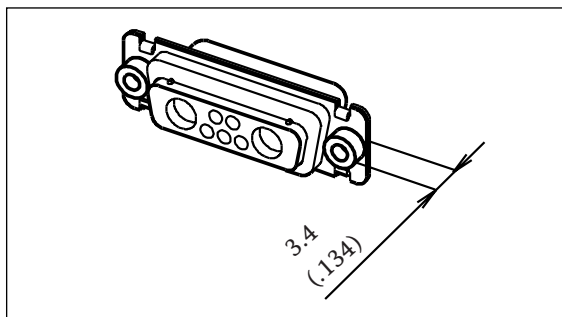
FM: float mounting system



Straight and right angle version

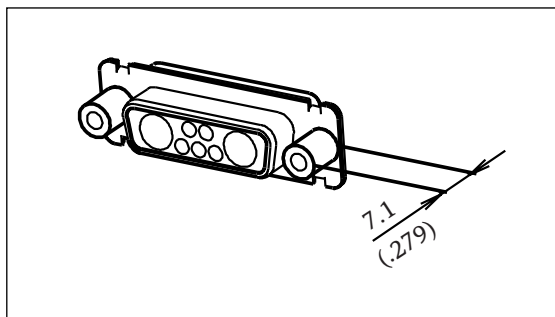
4R: 4.40 rear nut

3R: M3 rear nut

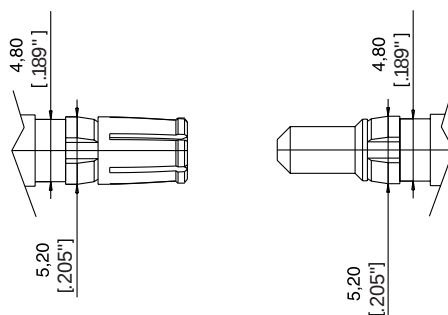


4F: 4.40 front female screwlock

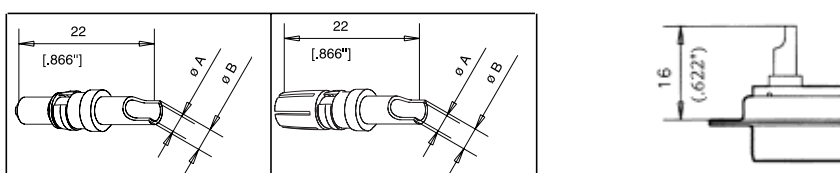
3F: M3 front female screwlock



High power contacts



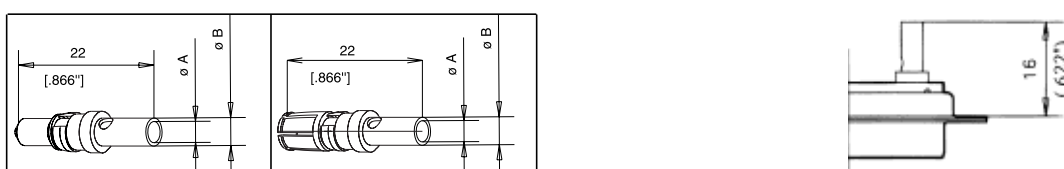
Solder cup version



P/N		Current	Dimensions	
Plug	Socket		A mm (inch)	B mm (inch)
17DM 53745-8	17DM 53744-7	10 to 20 Amp.	1.80 (.071")	2.55 (.100")
17DM 53745-7	17DM 53744-6	20 to 30 Amp.	2.80 (.110")	3.70 (.145")
17DM 53745-1	17DM 53744-1	30 to 40 Amp.	4.80 (.189")	5.60 (.220")

Trim dimensions: 7.5 mm (.295")

Crimp version



P/N		Current	Dimensions	
Plug	Socket		A mm (inch)	B mm (inch)
17DM 53745-208	17DM 53744-207	10 to 20 Amp.	1.80 (.071")	2.55 (.100")
17DM 53745-207	17DM 53744-206	20 to 30 Amp.	2.80 (.110")	3.70 (.145")
17DM 53745-201	17DM 53744-201	30 to 40 Amp.	4.80 (.189")	5.60 (.220")

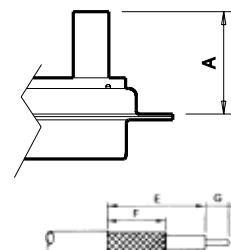
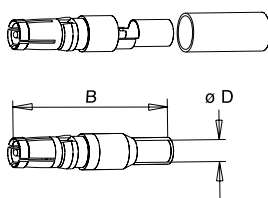
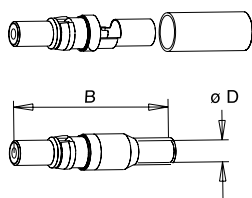
Trim dimensions: 7.5 mm (.295")

Crimping tool for all sizes
17D479SP

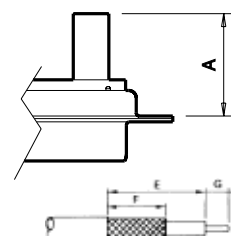
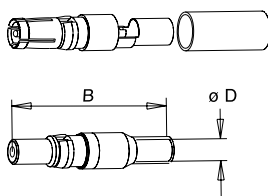
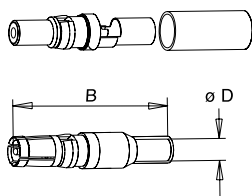


Extraction tool for sizes 8 cts
17D429SP



Straight shielded contacts**Crimp ferrule/Inner solder**

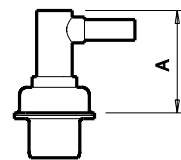
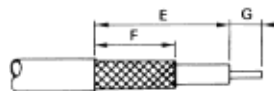
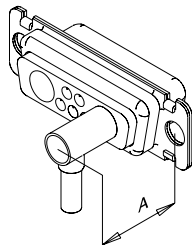
Type	P/N	Dimensions (inch)			Cable - RG	Trim dimensions (inch)		
		A Max	B	D		E	F	G
plug	17DM 53740	18.8 (.740")	23.6 (.929")	1.0 (.039")	178 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
plug	17DM 53740-1	18.8 (.740")	23.6 (.929")	1.7 (.066")	179 B/U 316 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
plug	17DM 53740-3	21.5 (.846")	23.6 (.929")	2.8 (.110")	180 B/U	9.5 (.374")	7.9 (.311")	2 (.078")
plug	17DM 53740-5	21.5 (.846")	23.6 (.929")	3.2 (.126")	58 C/U	9.5 (.374")	7.9 (.311")	2 (.078")
socket	17DM 53742	18.8 (.740")	23.6 (.929")	1.0 (.039")	178 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
socket	17DM 53742-1	18.8 (.740")	23.6 (.929")	1.7 (.066")	179 B/U 316 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
socket	17DM 53742-3	21.5 (.846")	23.6 (.929")	2.8 (.110")	180 B/U	9.5 (.374")	7.9 (.311")	2 (.078")
socket	17DM 53742-5	21.5 (.846")	23.6 (.929")	3.2 (.126")	58 C/U	9.5 (.374")	7.9 (.311")	2 (.078")

Ferrule and inner solder

Type	P/N	Dimensions (inch)			Cable - RG	Trim dimensions (inch)		
		A Max	B	D		E	F	G
short plug	17DM 53740-5000	17.0 (.669")	21.8 (.858")	1.0 (.039")	178 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
plug	17DM 53740-5001	18.8 (.740")	23.6 (.929")	1.7 (.066")	179 B/U 316 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
plug	17DM 53740-5002	21.5 (.846")	26.3 (1.035")	2.8 (.110")	180 B/U	9.5 (.374")	7.9 (.311")	2 (.078")
plug	17DM 53740-5005	21.5 (.846")	26.3 (1.035")	3.2 (.126")	58 C/U	9.5 (.374")	7.9 (.311")	2 (.078")
plug	17DM 53740-5008	18.8 (.740")	23.6 (.929")	1.0 (.039")	178 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
short socket	17DM 53742-5000	17.0 (.669")	21.8 (.858")	1.0 (.039")	178 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
socket	17DM 53742-5001	18.8 (.740")	23.6 (.929")	1.7 (.066")	179 B/U 316 B/U	7.9 (.311")	6.3 (.248")	2 (.078")
socket	17DM 53742-5002	21.5 (.846")	26.3 (1.035")	2.8 (.110")	180 B/U	9.5 (.374")	7.9 (.311")	2 (.078")
socket	17DM 53742-5004	21.5 (.846")	26.3 (1.035")	3.2 (.126")	58 C/U	9.5 (.374")	7.9 (.311")	2 (.078")
socket	17DM 53742-5006	18.8 (.740")	23.6 (.929")	1.0 (.039")	178 B/U	7.9 (.311")	6.3 (.248")	2 (.078")

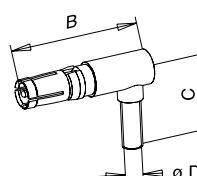
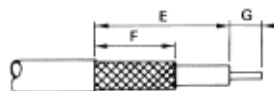
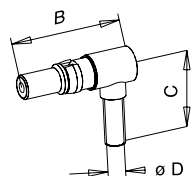
Right angled shielded contact

Crimp ferrule/Inner solder



Type	P/N	Dimensions (inch)				Cable - RG	Trim dimensions (inch)		
		A Max	B	C	D		E	F	G
plug	17DM 53741	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.0 (.039")	178 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
plug	17DM 53741-1	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.7 (.066")	179 B/U 316 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
plug	17DM 53741-3	13.5 (.531")	18.6 (.732")	15.3 (.602")	2.8 (.110")	180 B/U	10.7 (.421")	7.9 (.311")	2.4 (.094")
plug	17DM 53741-4	13.5 (.531")	18.6 (.732")	15.3 (.602")	3.2 (.126")	58 C/U	10.7 (.421")	7.9 (.311")	2.4 (.094")
socket	17DM 53743-2	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.0 (.039")	178 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
socket	17DM 53743-3	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.7 (.066")	179 B/U 316 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
socket	17DM 53743-5	13.5 (.531")	18.6 (.732")	15.3 (.602")	2.8 (.110")	180 B/U	10.7 (.421")	7.9 (.311")	2.4 (.094")
socket	17DM 53743-6	13.5 (.531")	18.6 (.732")	15.3 (.602")	3.2 (.126")	58 C/U	10.7 (.421")	7.9 (.311")	2.4 (.094")

Ferrule and inner solder



Type	P/N	Dimensions (inch)				Cable - RG	Trim dimensions (inch)		
		A Max	B	C	D		E	F	G
plug	17DM 53741-5000	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.0 (.039")	178 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
plug	17DM 53741-5001	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.7 (.066")	179 B/U 316 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
plug	17DM 53741-5003	13.5 (.531")	18.6 (.732")	13.9 (.547")	2.8 (.110")	180 B/U	10.7 (.421")	7.9 (.311")	2.4 (.094")
plug	17DM 53741-5004	13.5 (.531")	18.6 (.732")	13.9 (.547")	3.2 (.126")	58 C/U	10.7 (.421")	7.9 (.311")	2.4 (.094")
socket	17DM 53743-5000	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.0 (.039")	178 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
socket	17DM 53743-5001	13.5 (.531")	18.6 (.732")	12.5 (.492")	1.7 (.066")	179 B/U 316 B/U	9.5 (.374")	5.9 (.232")	1.6 (.062")
socket	17DM 53743-5003	13.5 (.531")	18.6 (.732")	13.9 (.547")	2.8 (.110")	180 B/U	10.7 (.421")	7.9 (.311")	2.4 (.094")
socket	17DM 53743-5004	13.5 (.531")	18.6 (.732")	13.9 (.547")	3.2 (.126")	58 C/U	10.7 (.421")	7.9 (.311")	2.4 (.094")

Crimping tool

Hand crimp tool

227-0944 (without dies) (M 22 520/5-01)

RG cables	MIL reference	Amphenol P/N	dim. between 2 flat surface	
			cavity A	cavity B
RG 58 C/U	M 22 520/5-05	227 1221-05	5.41	—
RG 178 B/U	M 22 520/5-03	227 1221-03	—	2.67
RG 179 B/U	M 22 520/5-03	227 1221-03	3.25	—
RG 180 B/U	M 22 520/5-05	227 1221-05	—	4.52

Extraction tool

Crimping tool for all sizes
Amphenol ref: 227-0994 - MIL ref: M22520/5-01

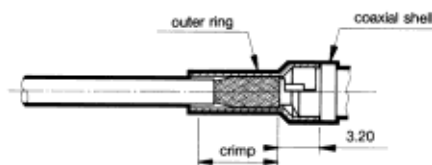
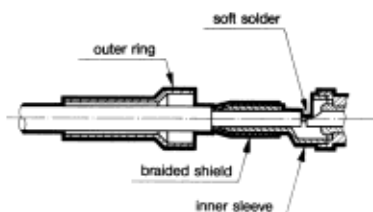


Extraction tool for sizes 8 cts
17D429SP

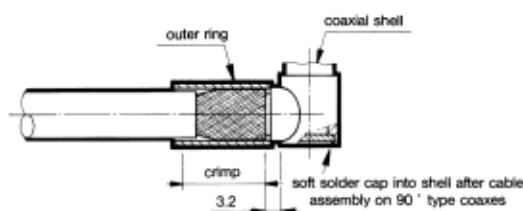
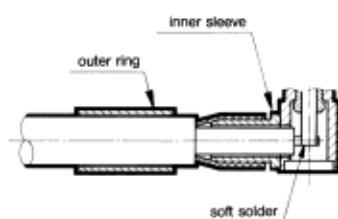


Cabling instructions for shielded contacts

Straight crimp shielded contacts: *inner solder contact outer crimp contact*



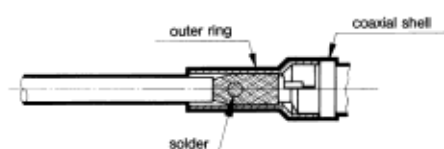
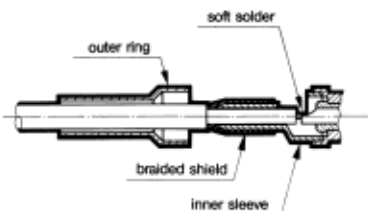
Right angle crimp shielded contacts: *inner solder contact outer crimp contact*



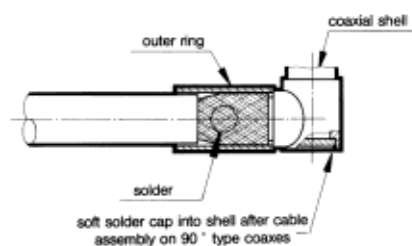
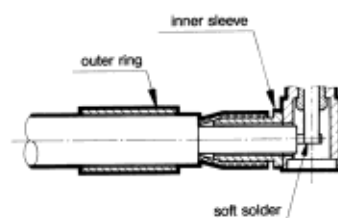
Assembly method

- Slide the outer ring over the cable jacket. Trim the cable according to the recommended dimensions.
- Insert the cable dielectric and the center conductor inside the inner sleeve.
- Solder the central conductor to the shielded center contacts.
- Slide the outer ring towards the inner sleeve and recover the braid.
- Using crimp hand tool equipped with the appropriate dies, crimp in the area defined.

Solder straight shielded contacts



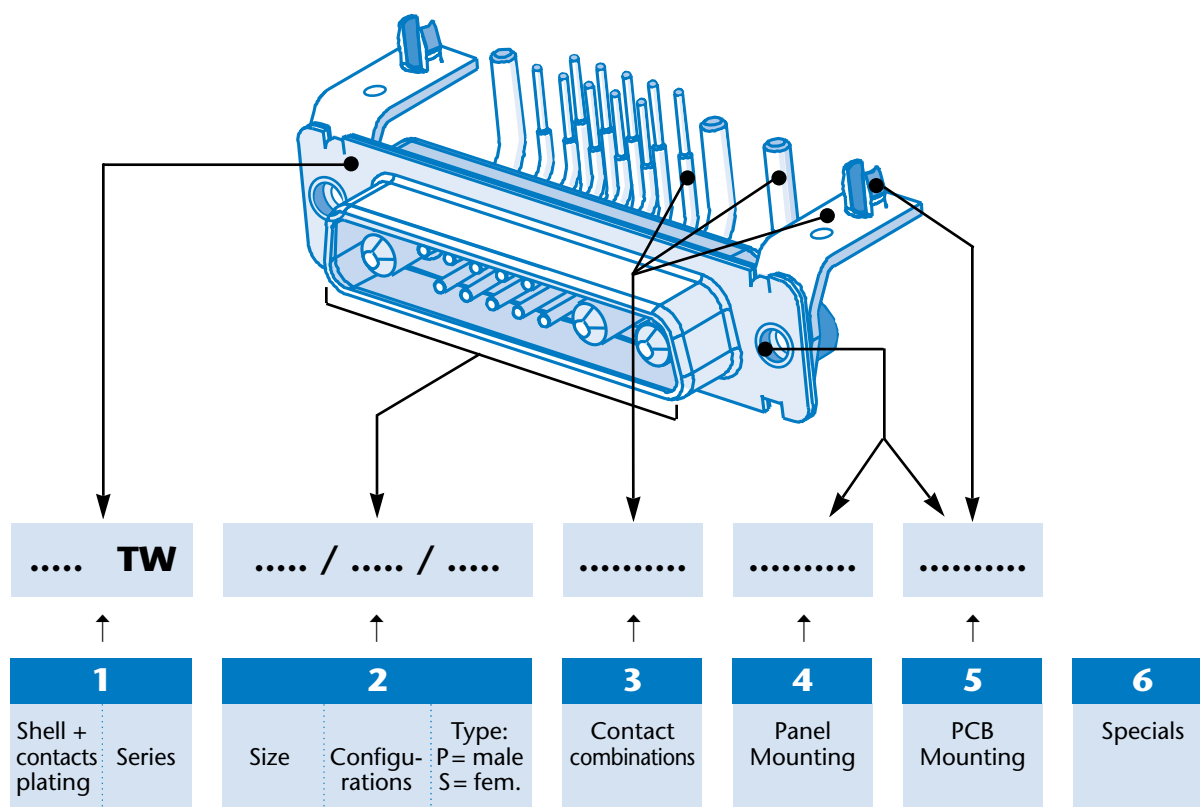
Solder right angle shielded contacts



Assembly method

- Slide the outer ring over the cable jacket. Trim the cable according to the recommended dimensions.
- Insert the cable dielectric and the center conductor inside the inner sleeve.
- Solder the central conductor to the shielded center contacts.
- Slide the outer ring towards the inner sleeve and recover the braid.
- Solder by introducing metal through the outer ring hole.

How to build your part number



Page 2	
17	TW
77	TW
717	TW
117	TW
177	TW
777	TW

Page 2		
E	5W1	P/S
A	3W3	P/S
A	7W2	P/S
A	11W1	P/S
B	5W5	P/S
B	9W4	P/S
B	13W3	P/S
B	17W2	P/S
B	21W1	P/S
C	8W8	P/S
C	13W6	P/S
C	17W5	P/S
C	21WA4	P/S
C	25W3	P/S
C	27W2	P/S
D	24W7	P/S
D	36W4	P/S
D	43W2	P/S

Page 4/5
XP3SV
XP2SV
XP2V
XP3V
P2Y
P3Y
XCSV
XHCV
CY
XSV
SY
P3SY
P2SY
CSY

Page 6
4F
4R
3F
3R
A514

Page 6
RM6
RM53
RM54
RM83
RM84

Consult factory

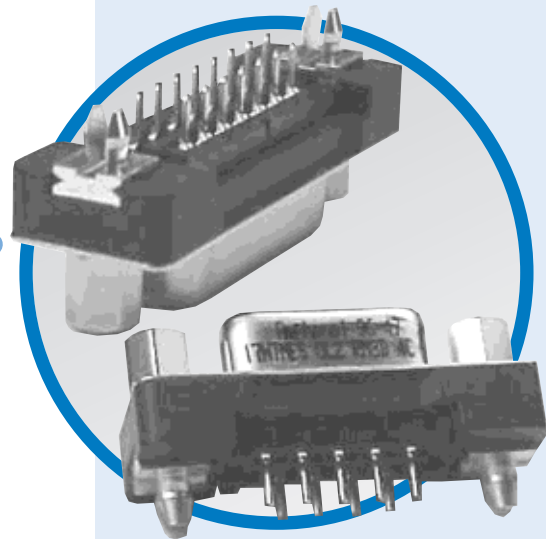
Blank: solder cup signal contacts size 20 only

Consult factory for D size configurations

HT

D-Sub connectors - Stamped and Formed Contacts

STRAIGHT PCB TERMINATION HIGH TEMPERATURE CONNECTORS



MAIN CHARACTERISTICS

Specifications

- Connectors according to MIL C24308

Materials and platings	
Shells	Steel with nickel plating
Insulator	Glass-filled thermoplastic, UL 94V-0
Contacts	Copper alloy, selective gold plating
Boardlock	Brass with nickel plating
Screwlock	Brass with nickel plating

Electrical Data	
Current rating	5A
Voltage rating	600V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	10mΩ max

Climatic Data	
Operating temperature	-55°C to +150°C, resist to short term (30s) at 260°C

Mechanical Data		
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9	3.05 (6.74)	0.36 (0.79)
15	5.09 (11.24)	0.46 (1.01)
25	8.44 (18.66)	0.81 (1.8)
37	12.51 (27.65)	1.1 (2.47)
Standard plating thicknesses		
- gold flash 0.76μm (30μ") gold		

DESCRIPTION

The Amphenol "HT" series allow the customers to use through holes connectors with reflow soldering process.

This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements

*Economical
straight PCB,
high temperature
connectors*

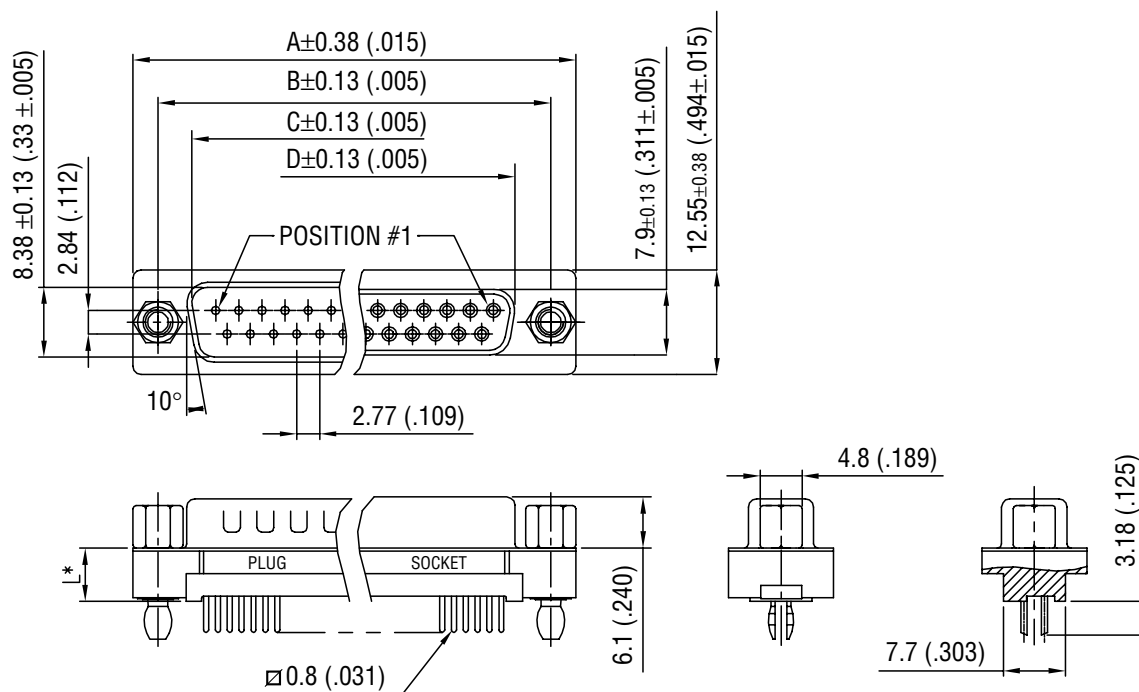
APPLICATIONS

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

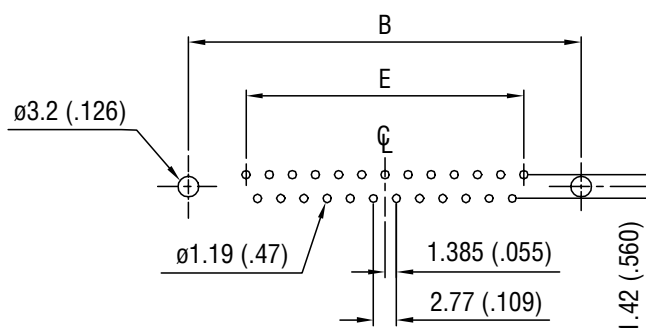
HT

Shell size dimensions

OVERALL DIMENSIONS

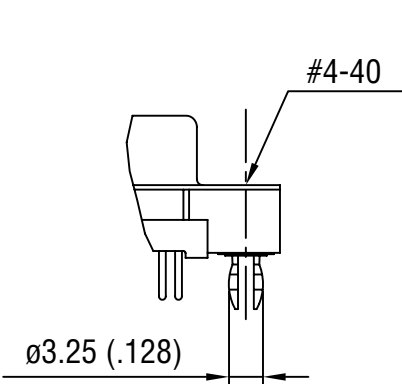


*see chart "how to order"

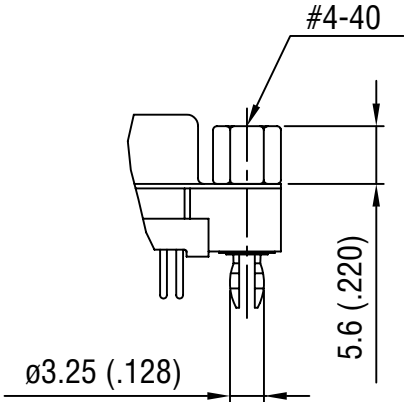
Recommended P.C.B. Layout

Nb OF CONTACTS	DIMENSIONS mm (inch)				
	A	B	C	D	E
9	30.84 (1.21)	24.99 (.984)	16.92 (.666)	16.26 (.640)	11.08 (.436)
15	39.24 (1.54)	33.32 (1.31)	25.25 (.994)	24.56 (.967)	19.39 (.763)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.30 (1.51)	33.24 (1.31)
37	69.34 (2.73)	63.50 (2.50)	55.42 (2.18)	54.76 (2.16)	49.86 (1.96)

Panel mounting option

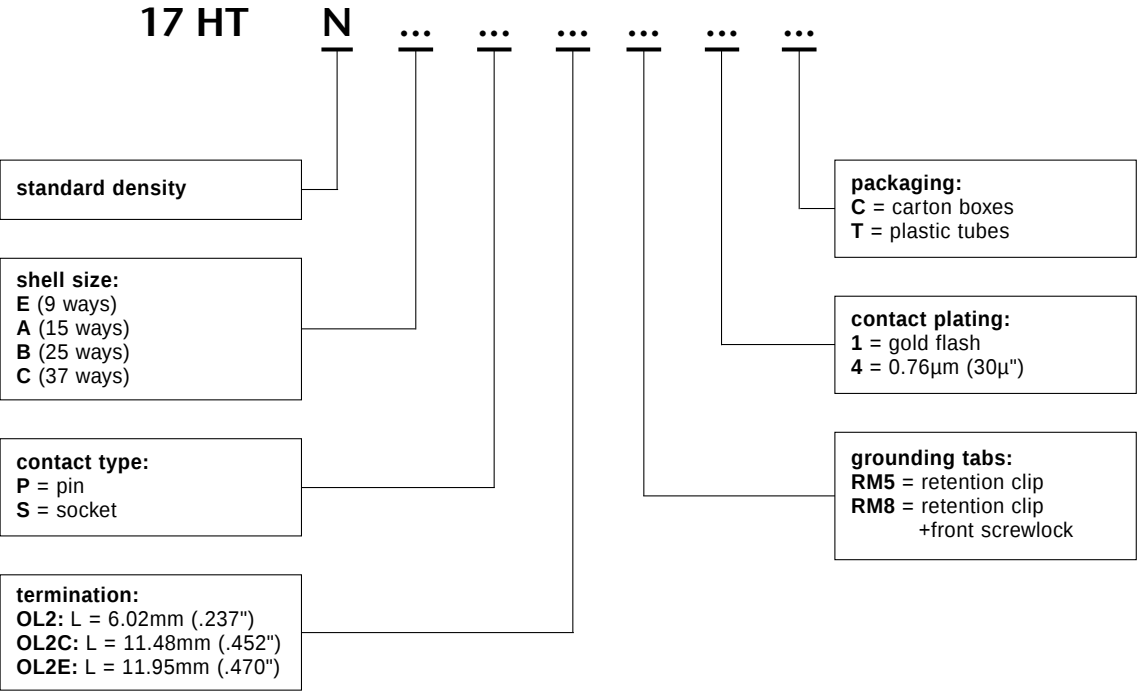


Standoff boardlock
RM5



Standoff boardlock
RM8

How to order

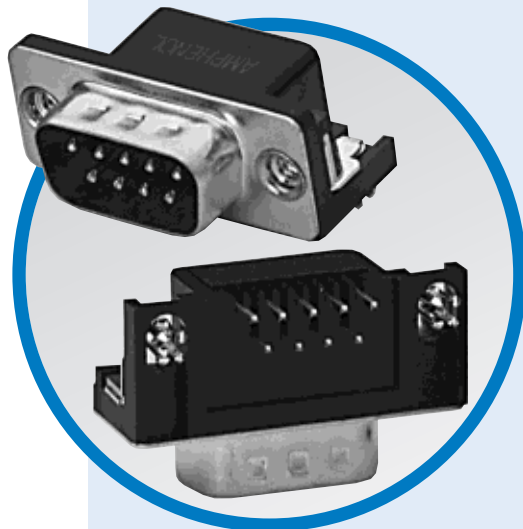


For special request, please consult factory

HT

D-Sub connectors - Stamped and Formed Contacts

RIGHT ANGLE HIGH TEMPERATURE CONNECTORS



MAIN CHARACTERISTICS

Specifications

- Connectors according to MIL C24308

Materials and platings	
Shells	Steel with nickel plating
Insulator	Glass-filled thermoplastic, UL 94V-0
Contacts	Copper alloy, selective gold plating
Rear insert	Brass with nickel plating
Screwlock	Brass with nickel plating
Grounding clip	Copper alloy with tin-lead plating

Electrical Data	
Current rating	5A
Voltage rating	600V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	10mΩ max

Climatic Data	
Operating temperature	-55°C to +150°C, resist to short term (30s) at 260°C

Mechanical Data		
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9	3.05 (6.74)	0.36 (0.79)
15	5.09 (11.24)	0.46 (1.01)
25	8.44 (18.66)	0.81 (1.8)
37	12.51 (27.65)	1.1 (2.47)
Standard plating thicknesses		
- gold flash 0.76 μm (30μ") gold		

DESCRIPTION

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*Economical
right angle PCB,
high temperature
connectors*

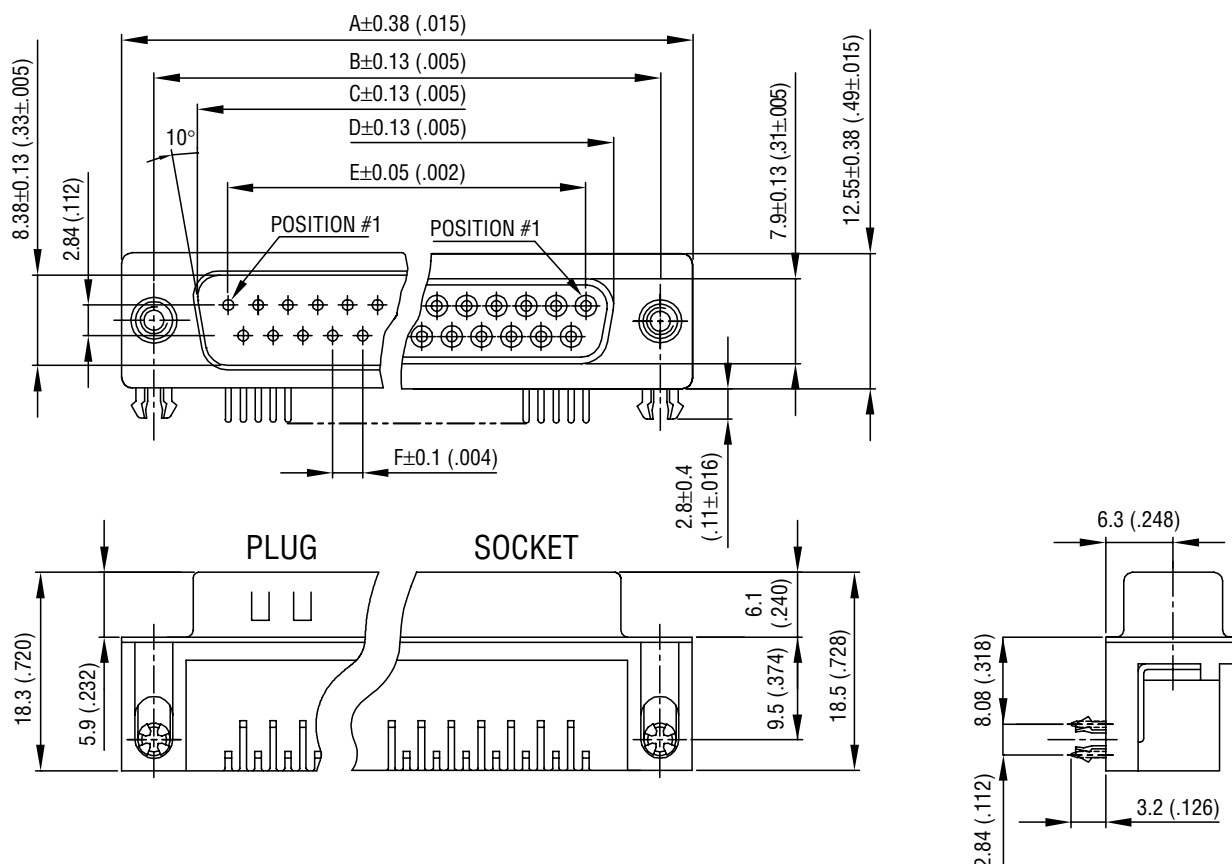
APPLICATIONS

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

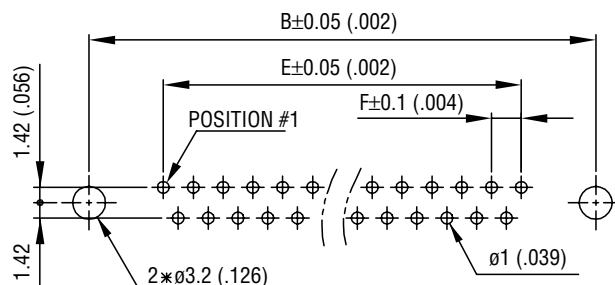
HT

Shell size dimensions

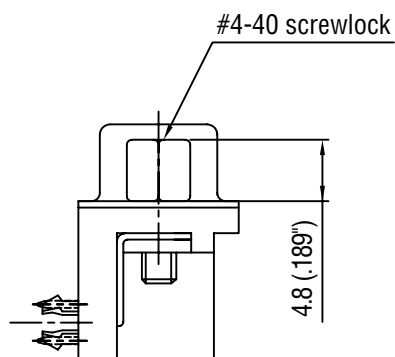
OVERALL DIMENSIONS



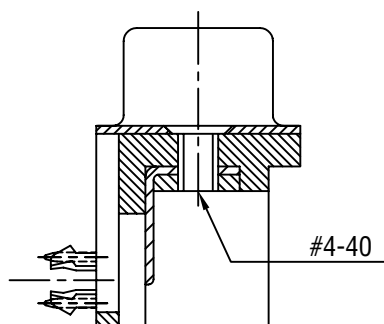
Nb OF CONTACTS	DIMENSIONS mm (inch)					
	A	B	C	D	E	F
9	30.81 (1.21)	24.99 (.98)	16.92 (.67)	16.24 (.64)	11.09 (.44)	2.74 (.108)
15	39.14 (1.54)	33.32 (1.31)	25.25 (.99)	24.56 (.97)	19.39 (.76)	2.74 (.108)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)	2.77 (.109)
37	69.32 (2.73)	63.50 (2.50)	55.42 (2.18)	54.76 (2.16)	49.86 (1.96)	2.77 (.109)

Recommended P.C.B. Layout

Panel mounting option



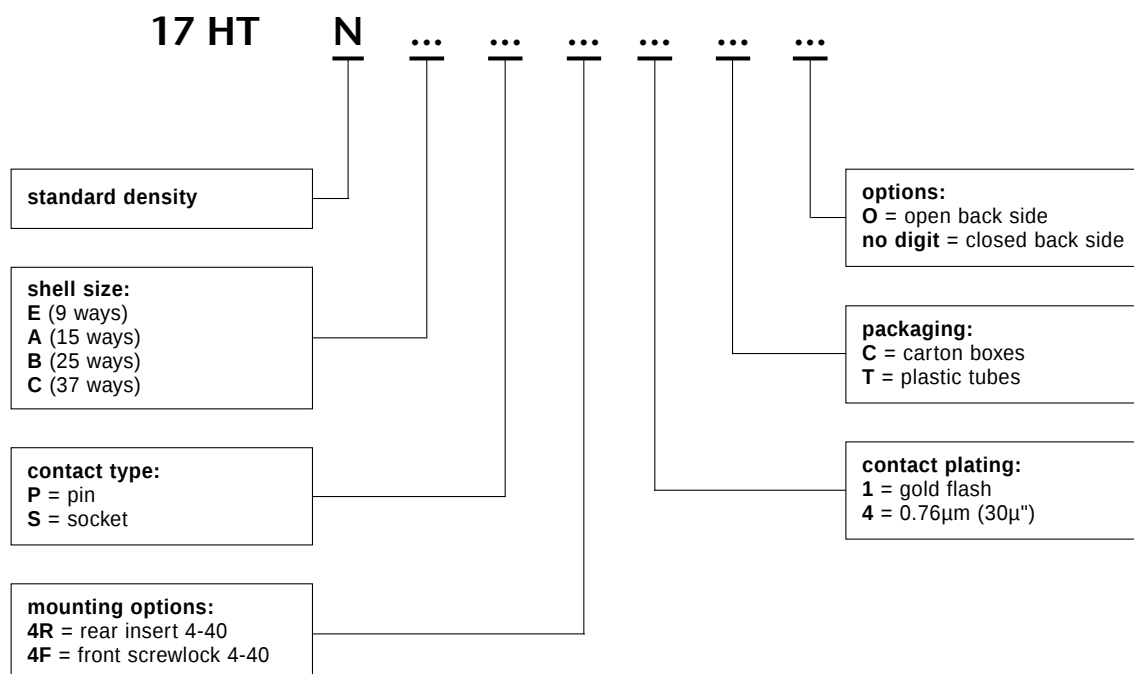
Front female screwlock

4F

Threaded rear insert

4R

How to order

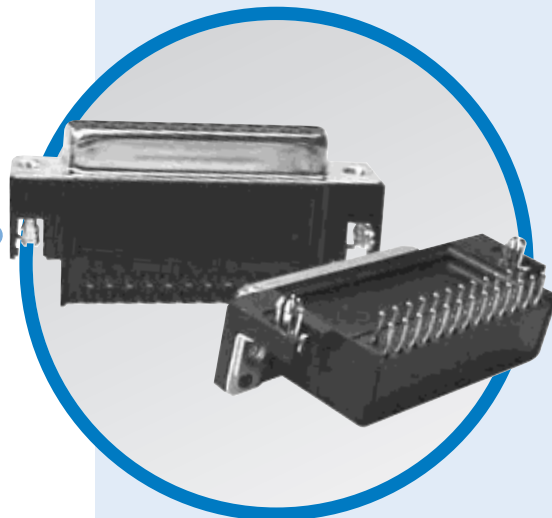


For special request, please consult factory

HT

D-Sub connectors - Stamped and Formed Contacts

RIGHT ANGLE HIGH TEMPERATURE CONNECTORS FOOTPRINT 14.99mm (.590")



MAIN CHARACTERISTICS

Specifications

- Connectors according to MIL C24308

Materials and platings	
Shells	Steel with nickel plating
Insulator	Glass-filled thermoplastic, UL 94V-0
Contacts	Copper alloy, selective gold plating
Rear insert	Brass with nickel plating
Screwlock	Brass with nickel plating
Grounding clip	Copper alloy with tin-lead plating

Electrical Data	
Current rating	5A
Voltage rating	600V AC/rms 50Hz
Withstanding voltage	1000V AC/rms 50Hz for one minute
Insulation resistance	5000MΩ
Contact resistance	10mΩ max

Climatic Data	
Operating temperature	-55°C to +150°C, resist to short term (30s) at 260°C

Mechanical Data		
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9	3.05 (6.74)	0.36 (0.79)
15	5.09 (11.24)	0.46 (1.01)
25	8.44 (18.66)	0.81 (1.8)
37	12.51 (27.65)	1.1 (2.47)
Standard plating thicknesses		
- gold flash 0.76 μm (30μ") gold		

DESCRIPTION

The Amphenol "HT" series allow the customers to use through holes connectors with reflow soldering process.

This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements

*Economical
right angle PCB
high temperature
connectors*

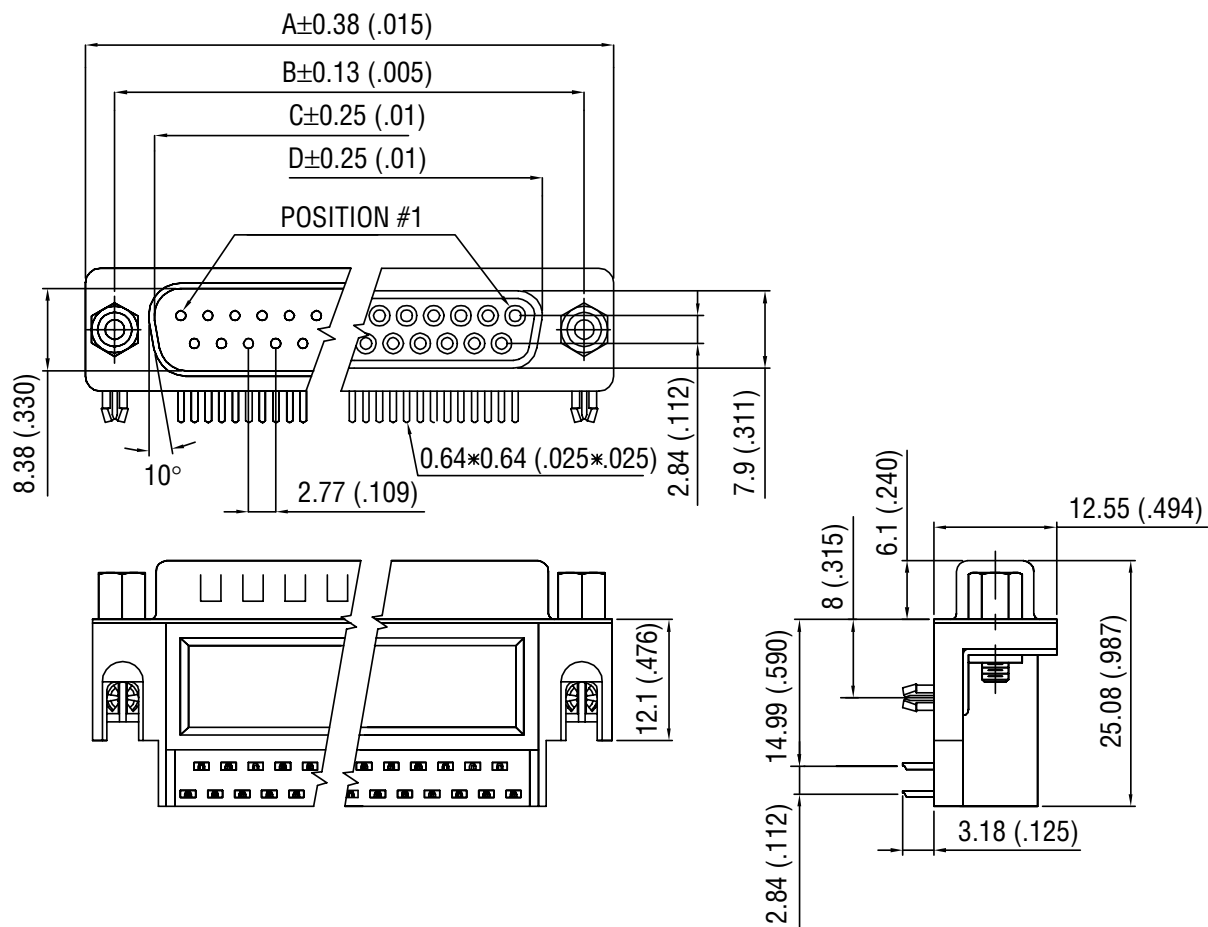
APPLICATIONS

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

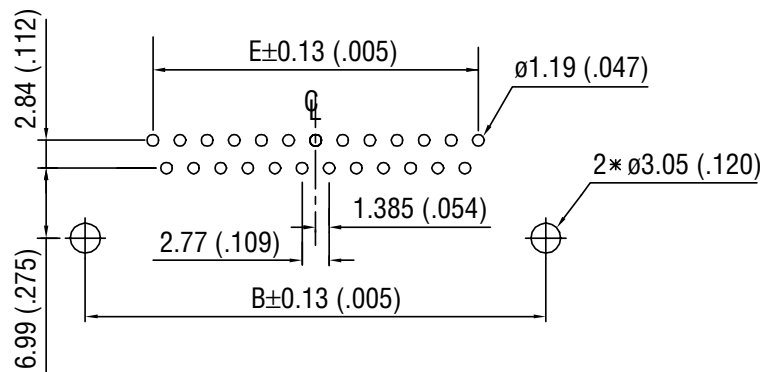
HT

Shell size dimensions

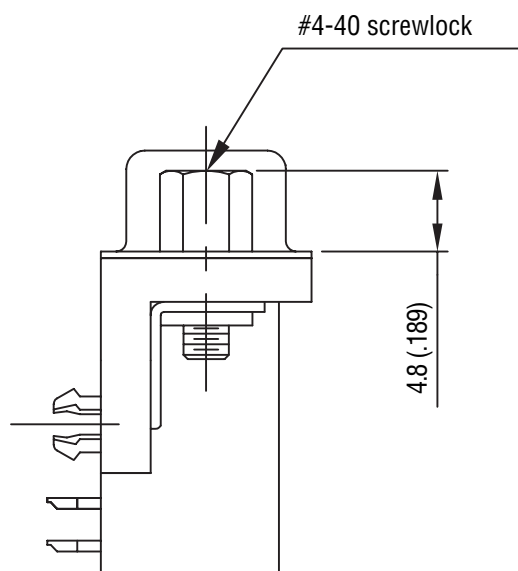
OVERALL DIMENSIONS



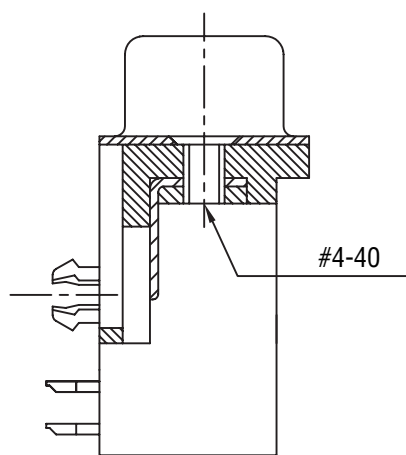
Recommended P.C.B. Layout



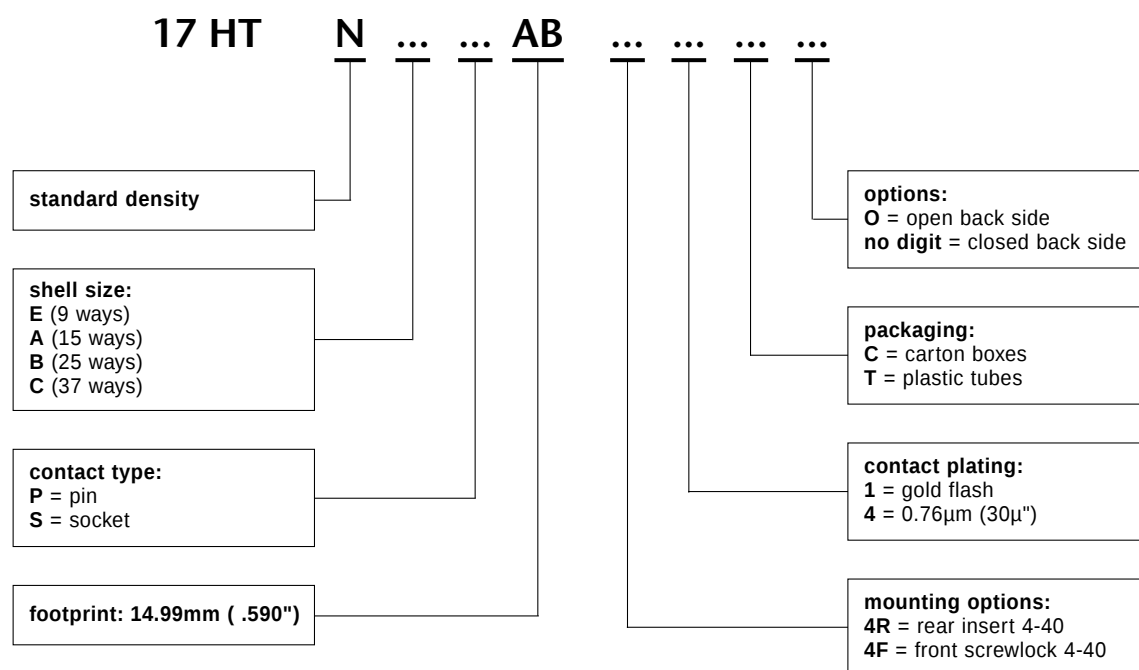
	DIMENSIONS mm (inch)				
	A	B	C	D	E
9	30.84 (1.214)	24.99 (.984)	16.92 (.666)	16.26 (.640)	11.08 (.436)
15	39.24 (1.545)	33.32 (1.312)	25.25 (.994)	24.56 (.967)	19.39 (.763)
25	53.04 (2.088)	47.04 (1.852)	38.96 (1.534)	38.30 (1.508)	33.24 (1.309)
37	69.34 (2.730)	63.50 (2.500)	55.42 (2.182)	54.76 (2.156)	49.86 (1.963)

Panel mounting option

Front female screwlock

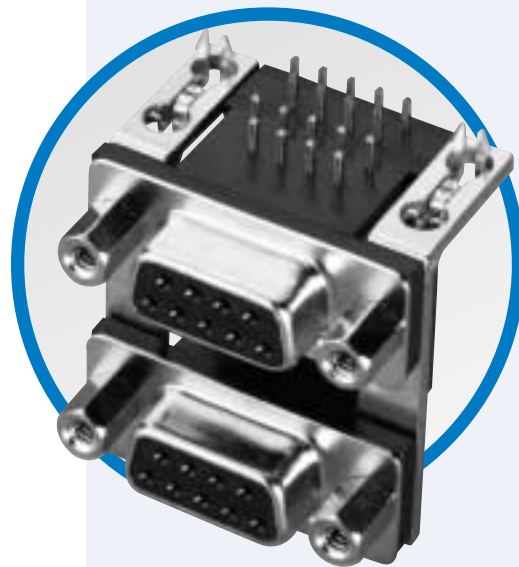
4F

Threaded rear insert

4R**How to order****For special request, please consult factory**

17H

D-Sub connectors - Stamped and Formed Contacts

DUAL PORT
D-SUB CONNECTORS

MAIN CHARACTERISTICS

Specifications

- UL File: E149426
- Connectors according to MIL C24308

Materials and platings	
Shells	Steel, tin plated
Insulator	Glass-filled thermoplastic, UL 94V-0
Pin contacts	Brass, selected gold in mating area; 2.54µm (100µ") min. tin lead on termination area over 1.27µm (50µ") min. nickel
Socket contact	Phosphor bronze, selected gold in mating area; 2.54µm (100µ") min. tin lead on termination area over 1.27µm (50µ") min. nickel
Rear insert	Brass, 2.54µm (100µ") min. nickel plated
Boardlock	Phosphor bronze, 2.54µm (100µ") min. tin lead plated
Screwlock	Brass, 2.54µm (100µ") min. nickel plated

Electrical Data	
Current rating	3A
Voltage rating	250V AC/rms 60Hz
Withstanding voltage	1000V AC/rms 60Hz for one minute
Insulation resistance	1000MΩ
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	0.06kg (0.13lb) min	
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9	3.05 (6.74)	0.36 (0.79)
15	5.09 (11.24)	0.46 (1.01)
25	8.44 (18.66)	0.81 (1.8)
15 (Hi-den)	3.81 (8.42)	0.52 (1.14)

Standard plating thicknesses	• gold flash • 0.4μm (15μ") gold • 0.76 μm (30μ") gold
------------------------------	--

DESCRIPTION

Amphenol's 17H dual port connectors are a state of the art design. The front metal shell helps reduce EMI / RFI emissions.

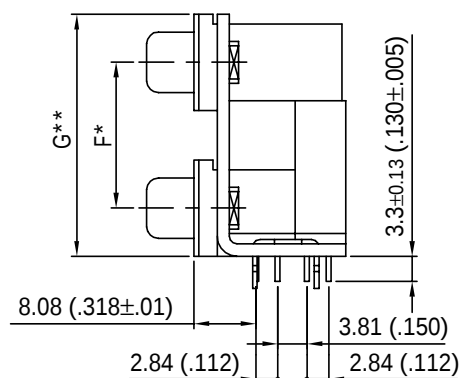
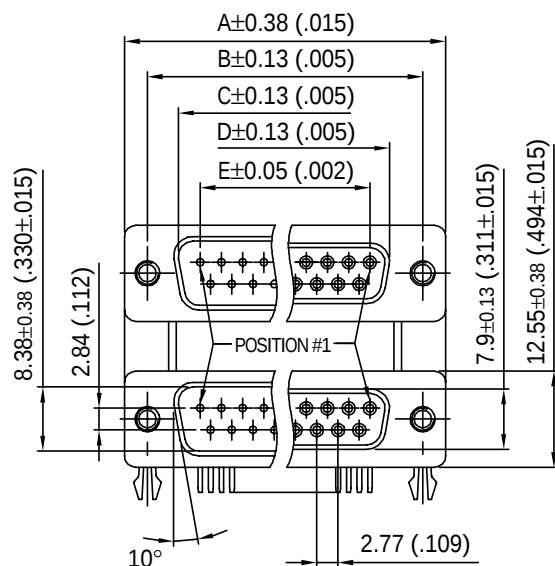
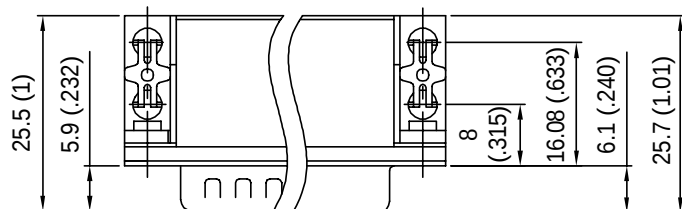
Designed to save PC board space, Amphenol's dual port provides two I / O connectors in a minimal amount of board space.

*Economical
dual port
connectors*

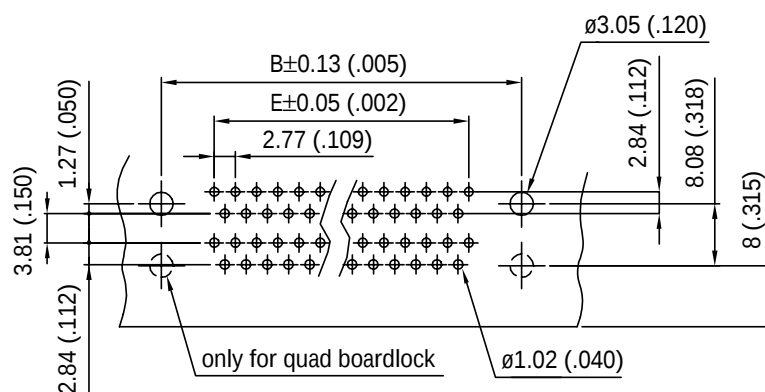
APPLICATIONS

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

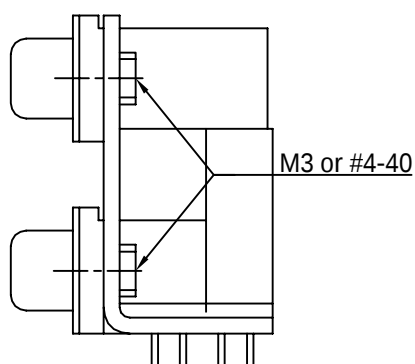
17H / E13



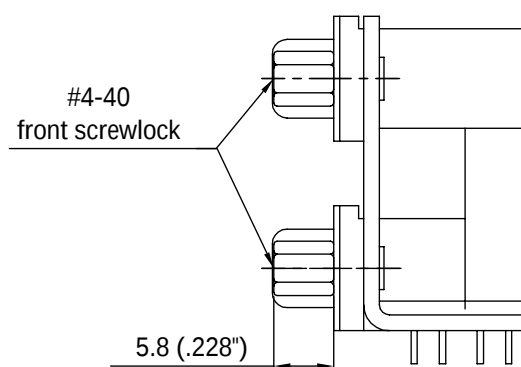
* spacing between ports (see "how to order" for dimensions)
** profile distance (see "how to order" for dimensions)



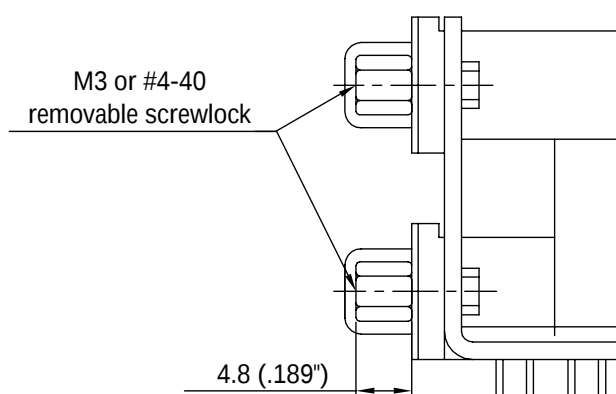
Nb OF CONTACTS	DIMENSIONS mm (inch)				
	A	B	C	D	E
9	30.84 (1.21)	24.99 (.984)	16.92 (.666)	16.24 (.639)	11.09 (.437)
15	39.24 (1.54)	33.32 (1.31)	24.7 (.972)	24.56 (.967)	19.39 (.763)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)
37	69.32 (2.73)	63.50 (2.50)	55.42 (2.18)	54.76 (2.16)	49.86 (1.96)
15 (Hi-den)	30.84 (1.21)	24.99 (.984)	16.92 (.666)	16.24 (.639)	10.31 (.406)

Panel mounting option**Flange mounting options:**

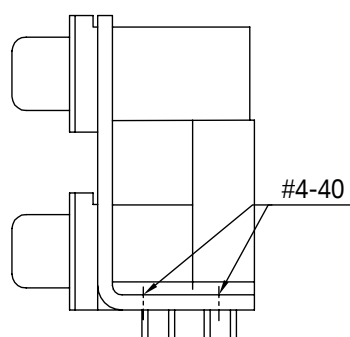
Threaded rear insert
0 / 4



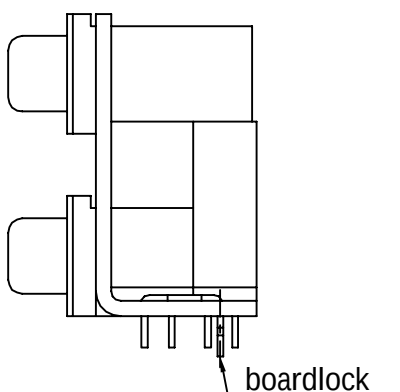
Fixed front female screwlock
7



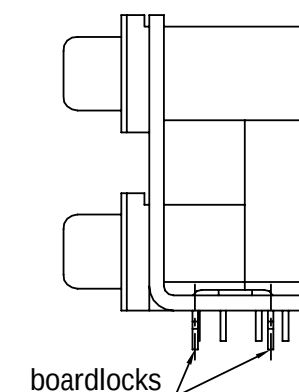
Removable female screwlock
1 / 5

Board mounting options:

Threaded hole
1



Dual arrowhead boardlock
2



Quad arrowhead boardlock
3

How to order

17H**spacing between ports:**

- 1: F=15.88mm (.625"),
G=28.42mm (1.12")
2: F=19.05mm (.750"),
G=31.60mm (1.24")
3: F=22.86mm (.900"),
G=35.41mm (1.39")
for F and G, see enclosed drawing

top connector type:

- 1 = 9-pos. male
2 = 9-pos. female
3 = 15-pos. male
4 = 15-pos. female
5 = 25-pos. male
6 = 25-pos. female
D = 37-pos. male
E = 37-pos. female
7 = 15-pos. high density female

bottom connector type:

- 1 = 9-pos. male
2 = 9-pos. female
3 = 15-pos. male
4 = 15-pos. female
5 = 25-pos. male
6 = 25-pos. female
D = 37-pos. male
E = 37-pos. female
7 = 15-pos. high density female

flange mounting options:

- 0 = rear insert 4-40
1 = removable screwlock 4-40
4 = rear insert M3
5 = removable screwlock M3
7 = fixed screwlock 4-40

board mounting options:

- 1 = 4*threaded hole 4-40
2 = dual arrowhead boardlock
3 = quad arrowhead boardlock

front shell finish:

- 0 = zinc chromated
1 = tin-lead over nickel
2 = nickel

contact finish:

- 0 = flash gold
1 = 0.4µm (15µ") gold
2 = 0.76µm (30µ") gold
3 = full flash gold

 : Standard options

For special request, please consult factory

Do not hesitate to contact us for further information

Amphenol

Amphenol Socapex*Telecom Business Unit*

21, chemin du Défois - BP 349

F - 39100 Dole

Fax: +33 (0) 3 84 82 94 11

<http://www.dsubconnector.com>**Technical support**

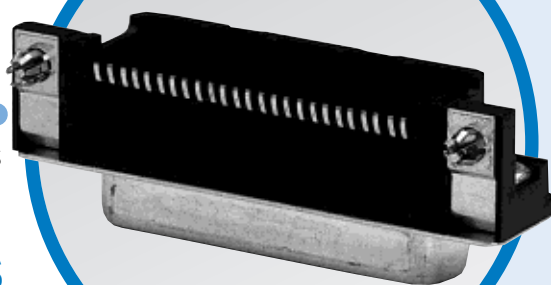
Tel.: +33 (0) 3 84 82 94 00

www.DataSheet4U.com

SM2

D'Sub connectors - Stamped and Formed Contacts

SURFACE MOUNT CONNECTORS



MAIN CHARACTERISTICS

Spécifications

- UL File: E64911
- Connectors according to: MIL C24308 - NFC 93425-HE5

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

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

Climatic Data	
Operating temperature	85°C, peak at 105°C
Damp heat	56 days (105°F - 95% HR)

Mechanical Data		
Single contact insertion force	1.2N < F < 2.5N	
Single contact withdrawal force	0.4N min	
LIF boardloc	8N max per connector	
Coplanarity of cts	0.2mm (.008") max	
Mating and unmating force		
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

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

New 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.

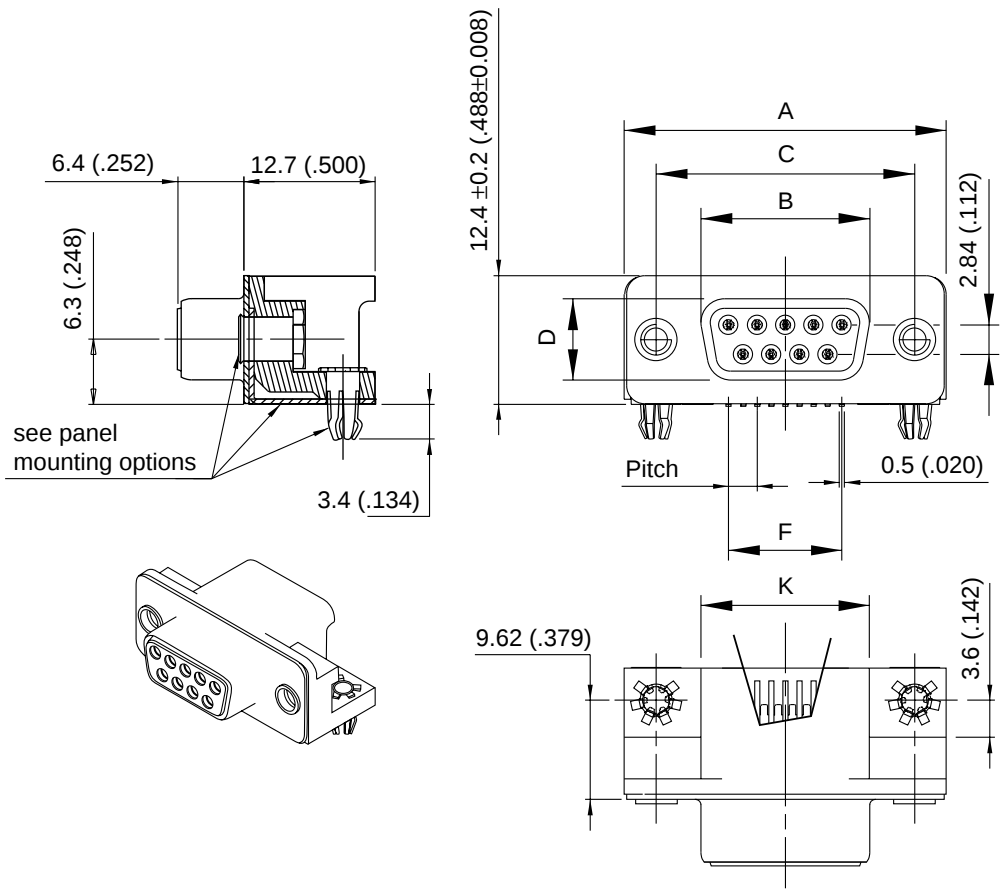
*Designed for
Pick and Place
SMT process*

APPLICATIONS

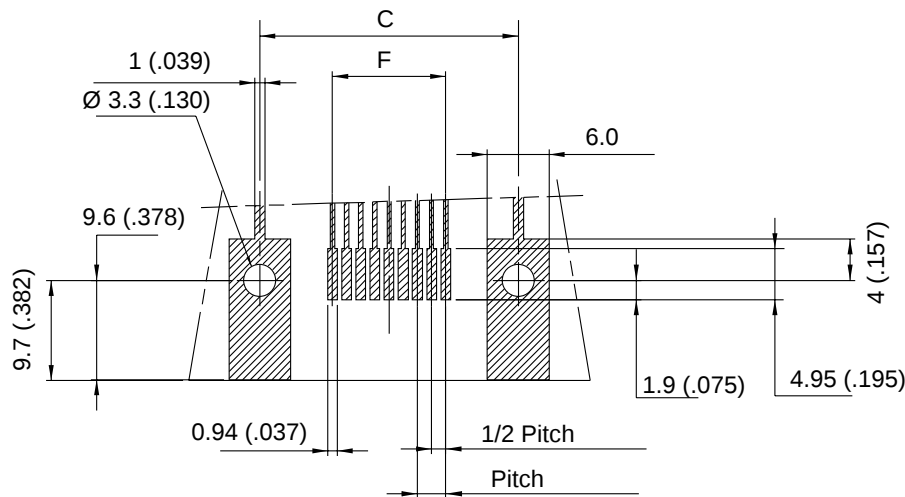
- Industrial
- Telecom
- Any industry standard I / O connections

SM2

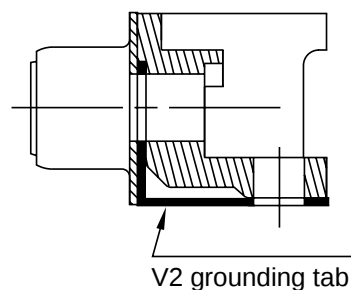
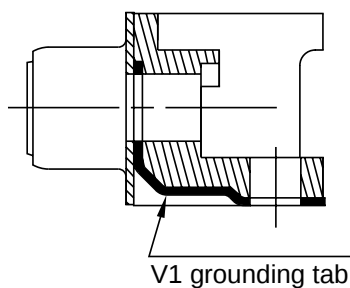
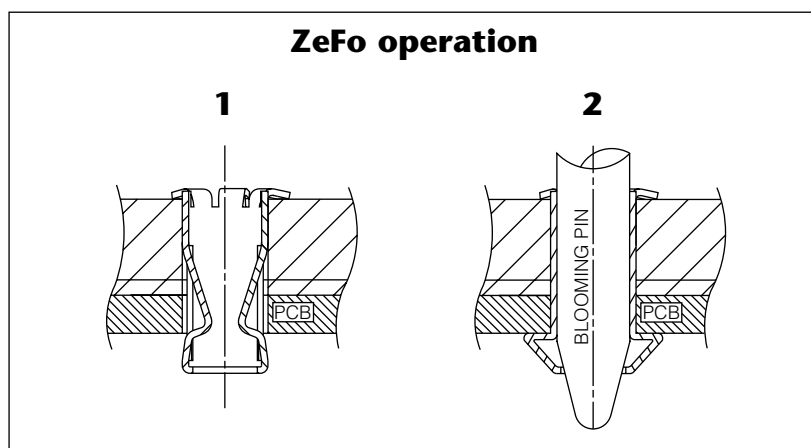
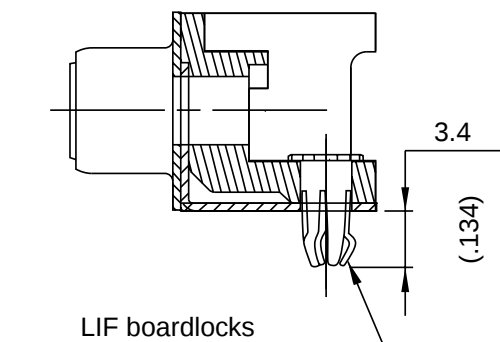
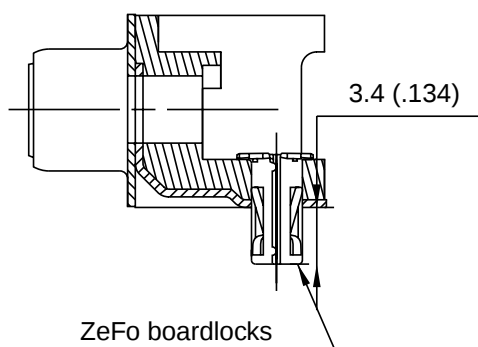
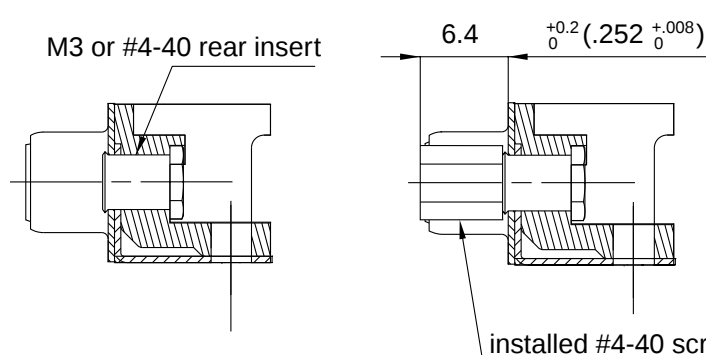
Shell size dimensions



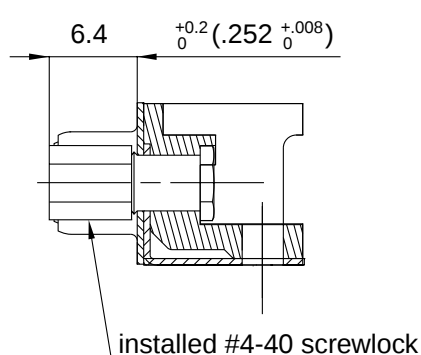
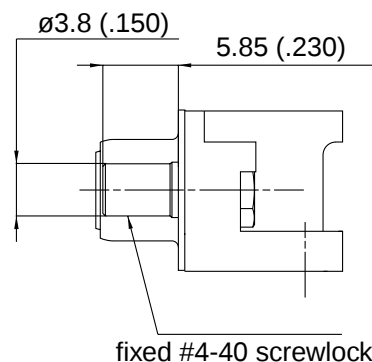
PCB LAYOUT



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 options**GROUNDING TABS :****BOARDLOCKS :****FLANGES ACCESSORIES :**

Threaded Rear

1/2Installed Front
Female**5**

Fixed Front Female

6 www.DataSheet4U.com

How to order**17 SM2****S****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
T = tube**contact plating :****1** = 0.2µm Au (7.9µ")**2** = 0.4µm Au (15.7µ")**3** = 0.5µm Au (19.7µ")**4** = 0.8µm Au (31.5µ")**6** = 1.27µm Au (50µ")**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 Socapex**

BP 349

39105 Dole Cedex – France

Fax : 33 (0) 3 84 82 94 11

Technical supportTel. : 33 (0) 3 84 82 94 00 www.DataSheet4U.comThe information given in this document are as a guide only.
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TF

D-Sub connectors - Stamped and Formed Contacts

PRESS FIT STRAIGHT PCB TERMINATION



MAIN CHARACTERISTICS

Materials and platings	
Shells	Steel, tin plated
Insulator	Glass-filled thermoplastic, UL 94V-0
Pin contact	Brass, selected gold in mating area ; 2.54µm (100µ inches) min. tin-lead on termination area over ; 1.27µm (50µ inches) min. nickel
Socket contact	Phosphor bronze, selected gold in mating area ; 2.54µm (100µ) min. tin-lead on termination area over ; 1.27µm(50µ) min. nickel
Rear insert	Brass, 2.54µm (100µ inches) min. nickel plated
Boardlock	Brass, 2.54µm (100µ inches) min. nickel plated
Screwlock	Brass, 2.54µm (100µ inches) min. nickel plated (removable)

Electrical Data	
Current rating	5A
Voltage rating	300V AC
Withstanding voltage	1000V AC / rms 60Hz for one minute
Insulation resistance	1000MΩ
Contact resistance	20mΩ max

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

Mechanical Data	
Single contact insertion force	≤ 3.60 N
Single contact withdrawal force	≥ 0.2 N
Single contact insertion on board	≤ 100 N
Single contact withdrawal from board	≥ 20 N
Standard plating thickness	Gold flash 0.4µm (15µ inches) gold 0.76µm (30µ inches) gold

	Terminal Specification	Boardlock Specification
Finished Hole	1 (+0.09 -0.06)	3.1 +/- 0.05 µm
Cu	> 25 µm	Min 25 µm
Sn	< 15 µm	5-15 µm

DESCRIPTION

The Amphenol "TF" series features eye of needle formed contacts, and insulator with closed entry contacts cavities.

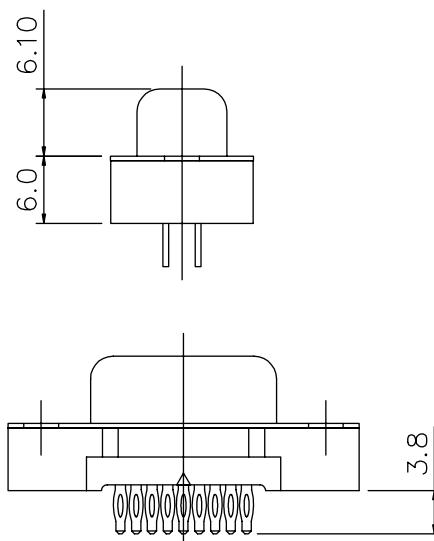
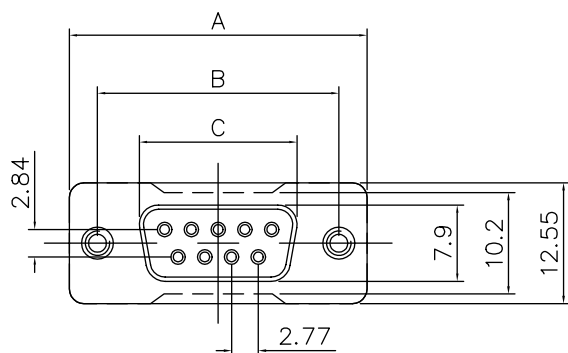
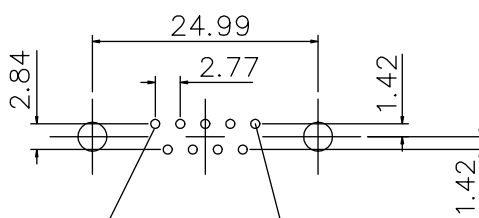
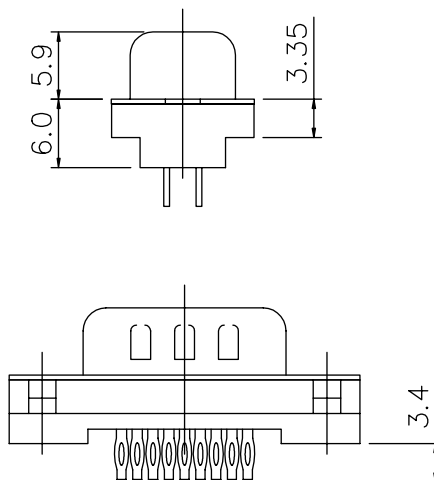
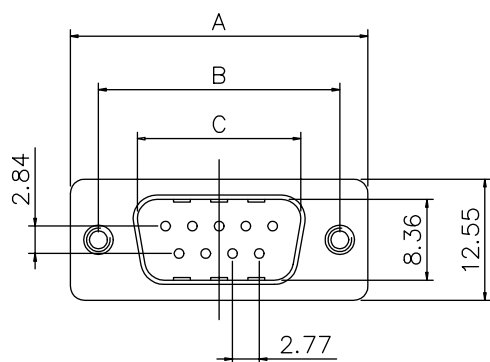
This series gives you Amphenol's high standards of quality and reliability to meet all your technical requirements.

*Solderless
straight PCB
mount
connectors*

APPLICATIONS

- Industrial
- Telecom
- Any backplanes connections

TF / E4

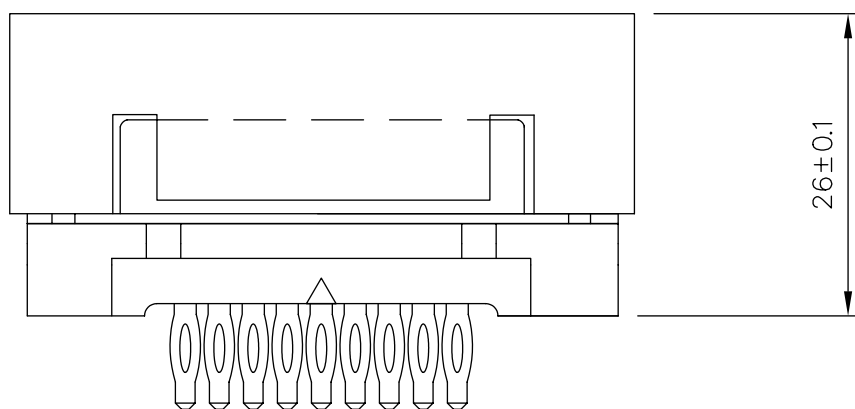
Socket version**Plug version**

Position n1 for plug

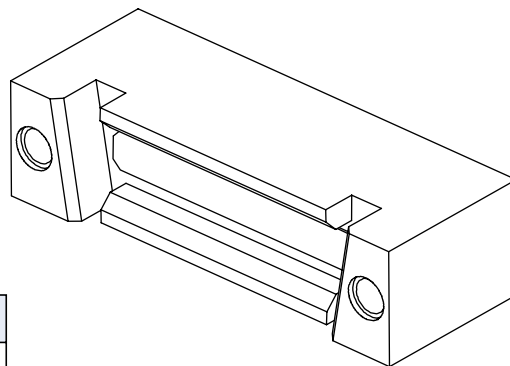
Position n1 for socket

For PCB holes diameters, see on page 1 (finished holes)

Nb OF CONTACTS	DIMENSIONS mm (inch)			
	A	B	C socket	C plug
9	30.81 (1.185)	24.99 (0.984)	16.92 (0.666)	16.33 (0.643)
15	39.14 (1.54)	33.32 (1.312)	25.50 (1.004)	24.66 (0.97)
25	53.04 (2.088)	47.04 (1.852)	38.96 (1.534)	38.38 (1.511)
37	69.32 (2.729)	63.50 (2.5)	55.42 (2.182)	54.84 (2.16)

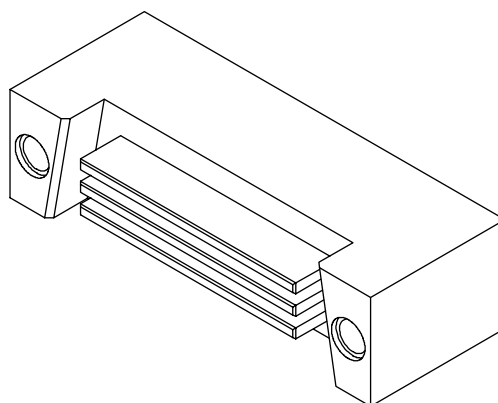


Female



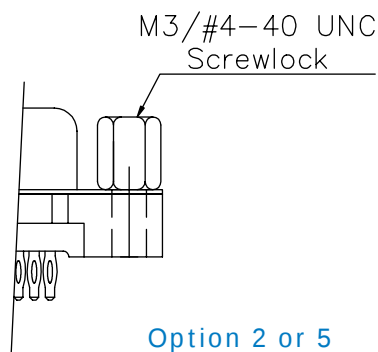
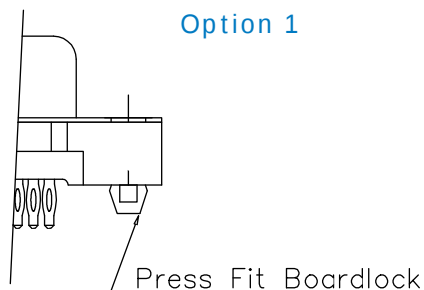
Size of connectors	Tooling PN
9	981 MC
15	982 MC
25	983 MC
37	984 MC

Male



Size of connectors	Tooling PN
9	985 MC
15	986 MC
25	987 MC
37	988 MC

Flange mounting option



17TF

....

....

....

....

....

....

Series

Number of contacts :
09-15-25-37

Contact type:
1 = pin
0 = socket

Contact plating
0 = gold flash
1 = 0.4 mm (15μ inches)
2 = 0.76 μm (30μ inches)

Flange mounting option :
1 = #4-40 threaded hole
2 = #4-40 threaded hole with #4-40 UNC screwlock installed
4 = M3 threaded hole
5 = M3 threaded hole with M3 screwlock installed

Board mounting option
0 = without boardlock
1 = with boardlock

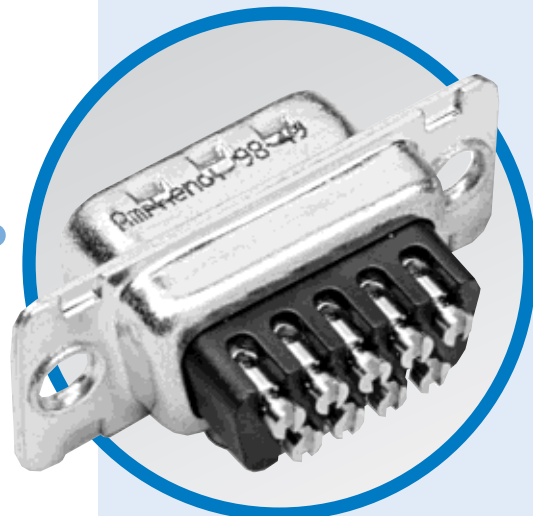
Front shell plating
1 = tin over nickel

Amphenol

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D-ST

Screw Termination D'Sub series



CHARACTERISTICS

Materials and platings	
Shells	Steel Tin plated
Insulator	Glass filled thermoplastic, UL94V-0
Contacts	Machined brass, full gold

Electrical Data	
Current rating	7,5 A max
Voltage rating	300 V RMS at 50 Hz
Withstanding voltage	1000 V RMS at 50 Hz
Insulation resistance	> 5000 MΩ at 500 V DC
Contact resistance	< 5 mΩ

Climatic Data	
Operating temperature	- 55°C to + 85°C, peak at 125°C
Damp heat	21 days (40°C - 95% HR)
Salt spray	48 hours

Mechanical Data	
Cable type	Solid or stranded
Cable gage	0,75 mm² max (AWG 18) - For bigger wire, please consult factory
Screw torque	0,05 mN max
Mating cycles	100 (classe II) or 500 (classe I)

DESCRIPTION

The Amphenol Screw Termination D'Sub series is especially designed for field applications.

These new connectors permit easy wiring without any specific tool : Just a standard electrician's screwdriver is required.

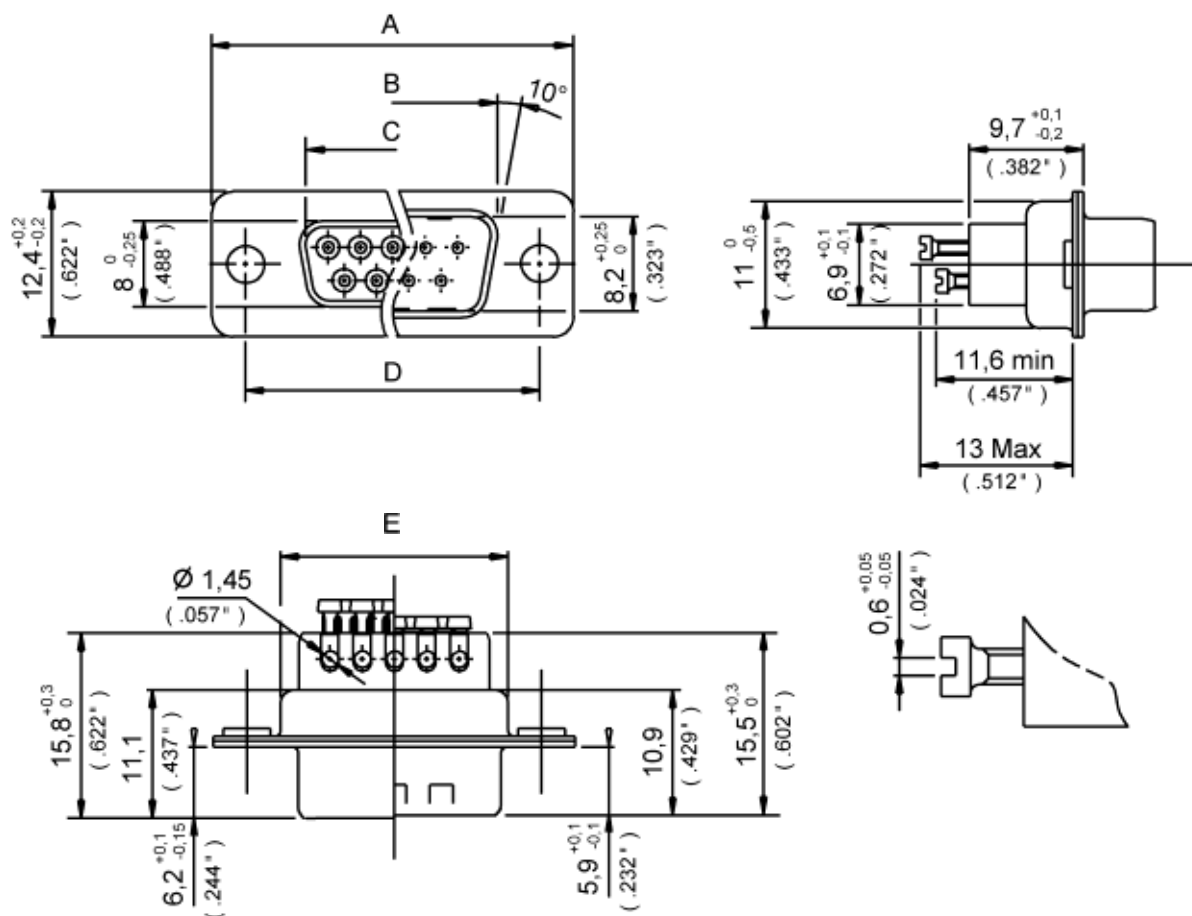
Due to their reduced overall dimensions, these connectors are compatible with all standard hoods and accessories

*Simplify
Your cable
assemblies!*

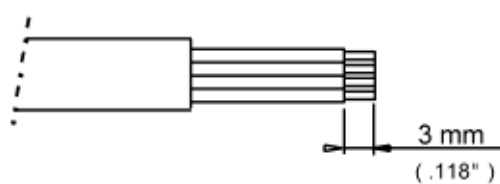
APPLICATIONS

- Industry control of speed variators, calculators...
- Houses and public buildings control of heating, air conditioning, lighting, shutters, fire safety...
- Infrastructures fluids control, motorway tolls, street lighting...

D-ST



Cable stripping



SIZE	A +0,25 (,010") -0,25 (,010")	B 0 -0,2 (,008")	C +0,2 (,008") 0	D +0,1 (,004") -0,1 (,004")	E +0,1 (,004") -0,4 (,016")
9	30.7 (1.209")	16.4 (,646")	16.8 (,661")	25 (,984")	19.4 (,370")
15	39 (1.535")	24.8 (,976")	25.1 (,988")	33.3 (1.311")	27.7 (1.091")
25	52.9 (2.083")	38.5 (1.516")	38.8 (1.528")	47 (1.850")	41.4 (1.630")
37	69.2 (2.724")	54.9 (2.161")	55.3 (2.177")	63.5 (2.500")	57.9 (2.280")

How to order

			717D	E09	P	ST	1
Classe II:	77D	Female connector					
	717D	Male connector, shells with dimples					
Classe I:	177D	Female connector					
	777D	Male connector, shells with dimples					
Size and number of contacts		E09, A15, B25, C37					
Type of contact:		P = Male S = Female					
Contact termination:		ST = Screw termination					
Kit connector + hood option: (See following description)		1 = DPPK hood 2 = DSSK hood 3 = DTZK hood 4 = DVZK hood					

Plastic hoods



DPPK Straight cable entry

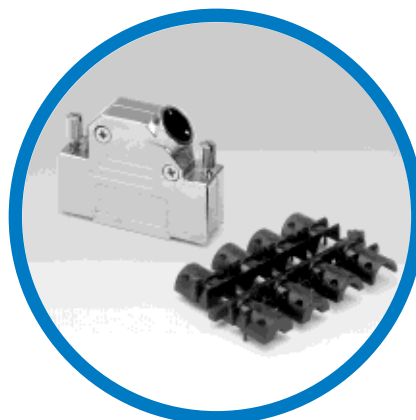


DSSK Angled cable entry

Metallic hoods



DTZK Straight cable entry



DVZK Angled cable entry

DFR

D-Sub connectors - Stamped and Formed Contacts

FLAT RIBBON D-SUB CONNECTORS



MAIN CHARACTERISTICS

Specifications

- **UL File:** E149426
- Connectors according to MIL C24308

Materials and Platings	
Shells	Steel with nickel plating
Insulator	Glass-filled thermoplastic, UL 94V-0
Pin contact	Brass, selected gold in mating area; 2.54µm (100µ") min. tin lead on termination area over 1.27µm (50µ") min. nickel
Socket contact	Phosphor bronze, selected gold in mating area; 2.54µm (100µ") min. tin lead on termination area over 1.27µm (50µ") min. nickel
Rear insert	Brass, 2.54µm (100µ") min. nickel plated
Screwlock	Brass, 2.54µm (100µ") min. nickel plated

Electrical Data	
Current rating	5A
Voltage rating	250V AC/rms 60Hz
Withstanding voltage	1000V AC/rms 60Hz for one minute
Insulation resistance	1000MΩ
Contact resistance	20mΩ max

Climatic Data	
Operating temperature	-40°C to +125°C

Mechanical Data		
Single contact insertion force	0.54kg (1.19lb) max	
Single contact withdrawal force	0.06kg (0.13lb) min	
Mating and unmating force		
Unit: kg (lb)		
No. of Cts	Mate (max)	Unmate (min)
9 (size E)	3.05 (6.74)	0.36 (0.79)
15 (size A)	5.09 (11.24)	0.46 (1.01)
25 (size B)	8.44 (18.66)	0.81 (1.8)
37 (size C)	12.51 (27.65)	1.1 (2.47)
Standard plating thicknesses		
• gold flash • 0.4μm (15μ") gold • 0.76μm (30μ") gold		

DESCRIPTION

These connectors are suitable for compact requirement of modern peripheral equipment.

Special contact design allows usage of standard 1.27mm (.05") flat cable. Suitable with all standard D-Sub hoods.

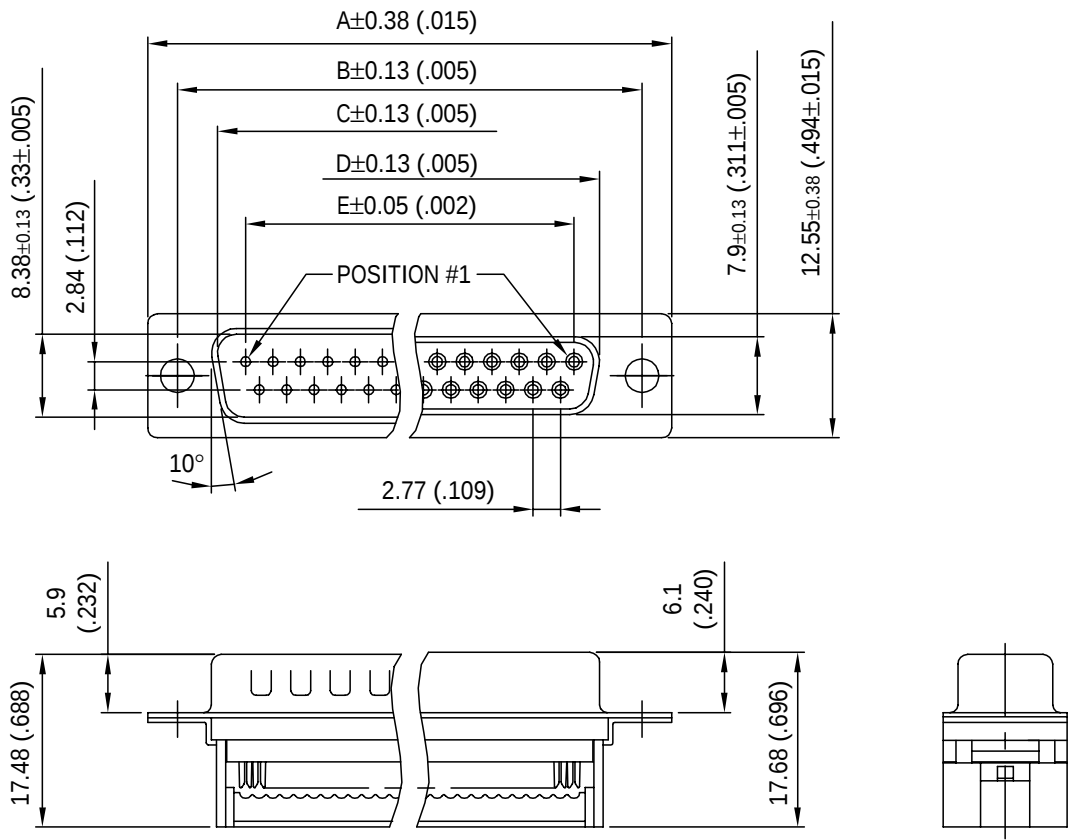
*Simplify
Your cable
assemblies!*

APPLICATIONS

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

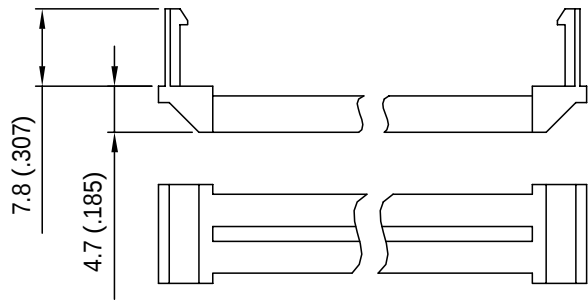
DFR

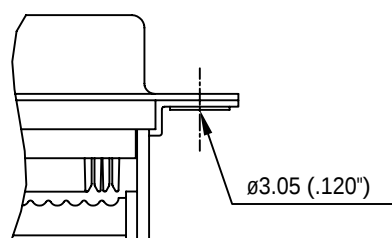
Shell size dimensions



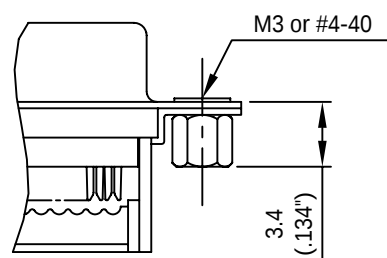
Nb OF CONTACTS	DIMENSIONS mm (inch)				
	A	B	C	D	E
9	30.84 (1.21)	24.99 (.984)	16.92 (.666)	16.24 (.639)	11.09 (.437)
15	39.24 (1.54)	33.32 (1.31)	24.70 (.972)	24.56 (.967)	19.39 (.763)
25	53.04 (2.09)	47.04 (1.85)	38.96 (1.53)	38.38 (1.51)	33.24 (1.31)
37	69.32 (2.73)	63.50 (2.50)	55.42 (2.18)	54.76 (2.16)	49.86 (1.96)

STRAIN RELIEF

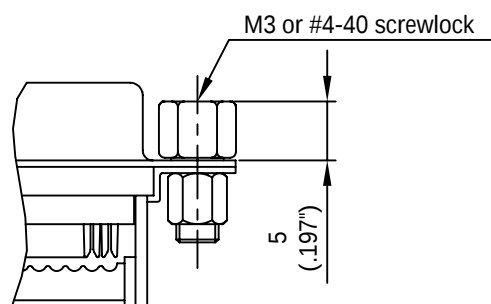


Panel mounting option

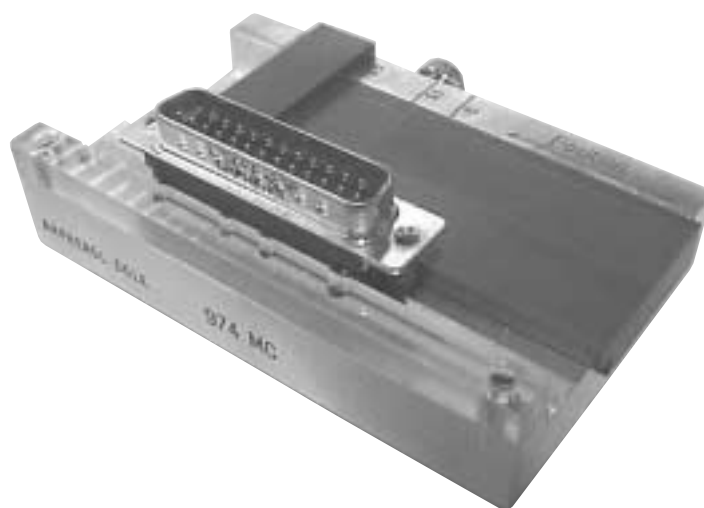
Standard rivet $\varnothing$ 3.05mm
no digit



Threaded rear insert
B / D

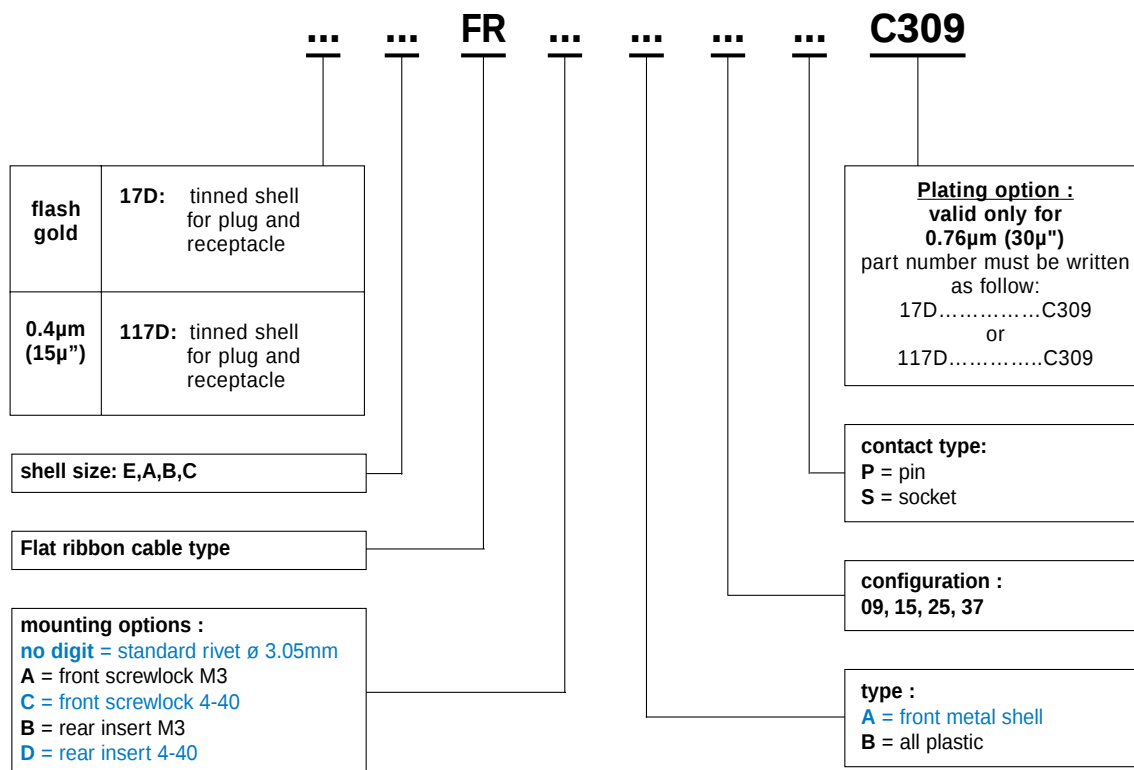


Front female screwlock
A / C

Tool

Support for hand termination tool:
974MC

How to order



■ : Standard options

For special request, please consult factory

Do not hesitate to contact us for further information

Amphenol

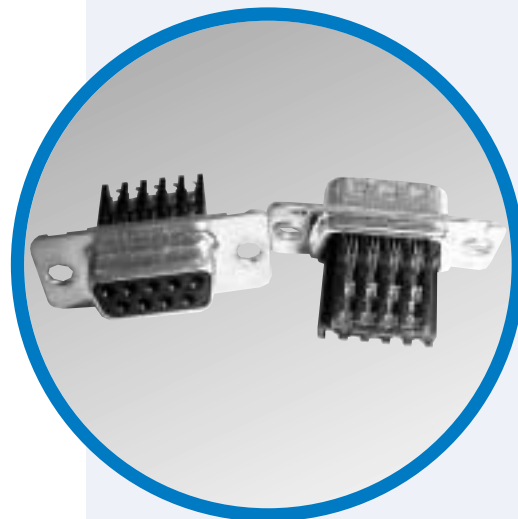
Amphenol Socapex
Telecom Business Unit
 21, chemin du Défois - BP 349
 F - 39100 Dole
 Fax: +33 (0) 3 84 82 94 11
<http://www.dsubconnector.com>
Technical support
 Tel.: +33 (0) 3 84 82 94 00

www.DataSheet4U.com

MP

D-Sub connectors - Stamped and Formed Contacts

IDC DISCRETE WIRE CONNECTORS



MAIN CHARACTERISTICS

Materials and platings	
Shells	Steel with bright tin over zinc shell plating
Contacts	Phosphor bronze
Plating	Contact area: gold over nickel IDC area: tin over nickel
Wire types	Solid and stranded wires AWG 24-28

Electrical data	
Current rating	5 A Max. per contact
Voltage rating	500 V AC at sea level 150 V AC at 90.000 feet
Dielectric	Thermoplastic Polyesther UL 94 VO rated

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

Mechanical Data	
Mating and unmating force	Size E 30 N Max. 3.5 N Mini. Size A 50 N Max. 4.5 N Mini. Size B 83 N Max. 8.0 N Mini. Size C 123 N Max. 11.0 N Mini.
Standart plating thicknesses	Gold flash 0.4µm (15µ) gold 0.76µm (30µ) gold

DESCRIPTION

Amphenol IDC discrete D-sub connectors offer low-profile design that accommodates many of the compact requirements of computer interfacing, instrumentation and business equipment. Fast, four-point solderless termination ensures reliable connections. This series is available in 9, 15, 25, 37 contact configurations. Contacts, including strain relief, are easily removable in case of repair.

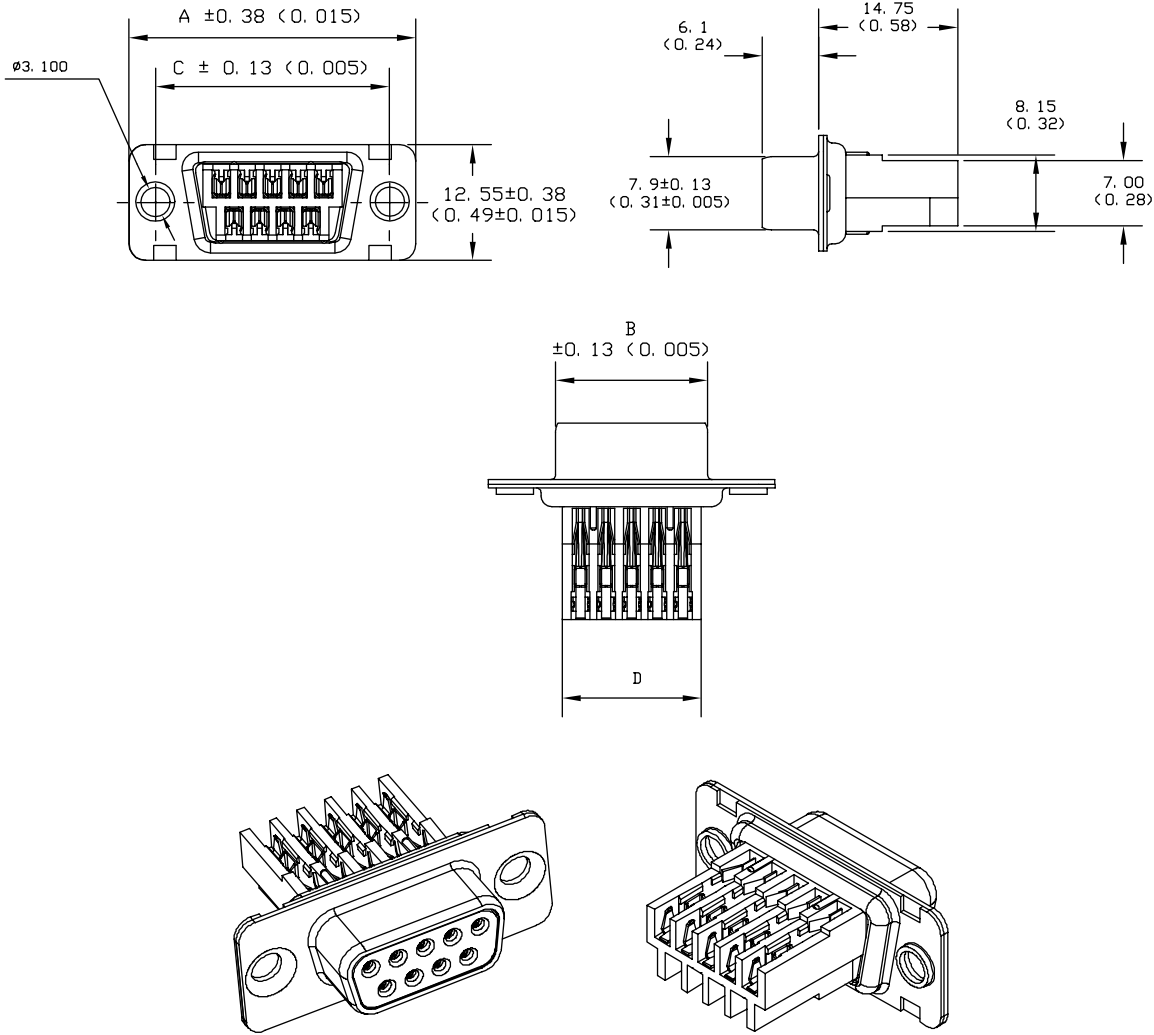
*Simplify
Your cable
assemblies*

APPLICATIONS

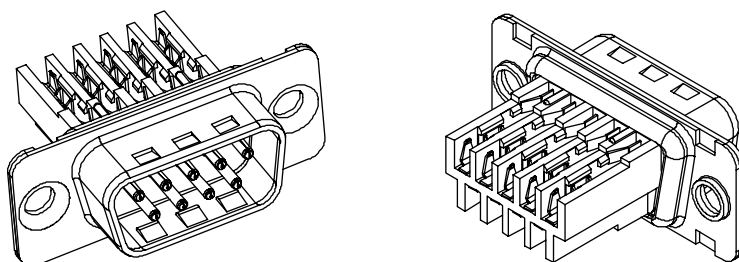
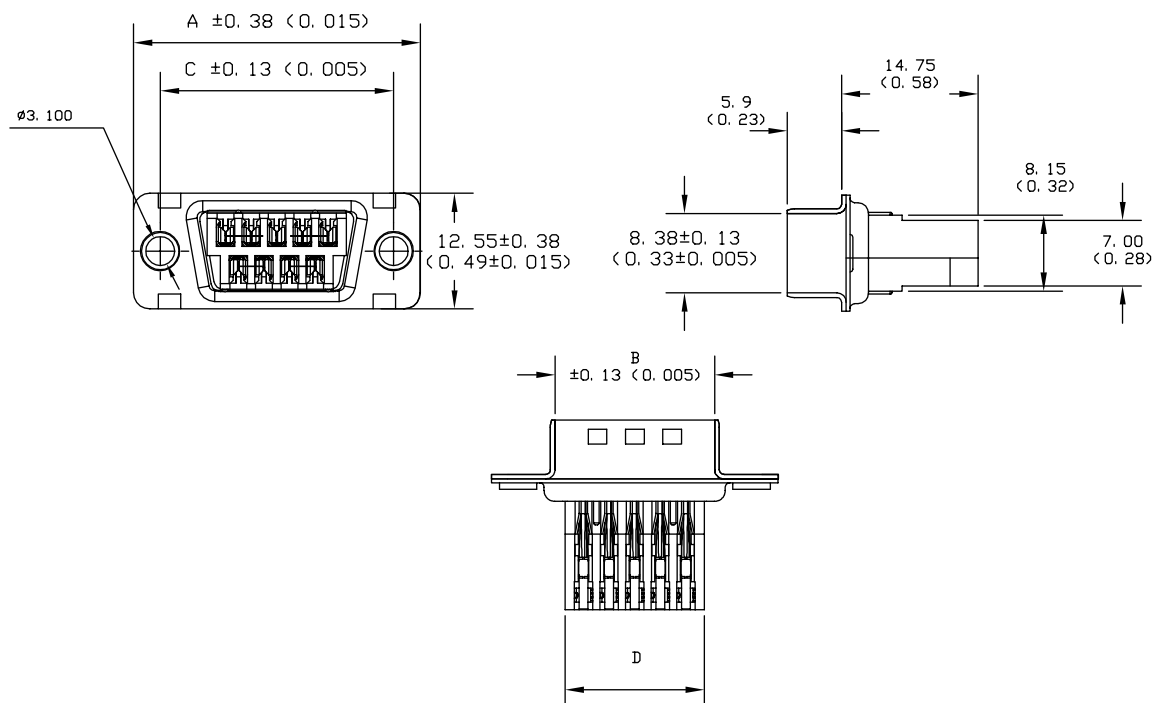
- Industrial
- Telecom
- Any industry standard
- I/O connections

IDC / E25

Socket version

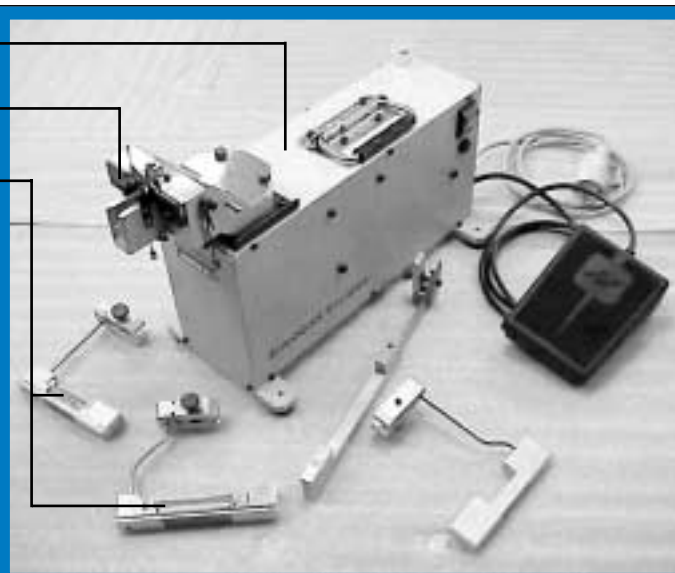


Nb OF CONTACTS	DIMENSIONS mm (inch)			
	A	B	C	D
9	30.81 (1.21)	16.24 (0.64)	24.99 (0.98)	14.90 (0.59)
15	39.14 (1.54)	24.56 (0.97)	33.32 (1.31)	23.00 (0.91)
25	53.04 (2.09)	38.38 (1.51)	47.04 (1.85)	36.90 (1.45)
37	69.32 (2.73)	54.76 (2.16)	63.50 (2.50)	59.30 (2.33)

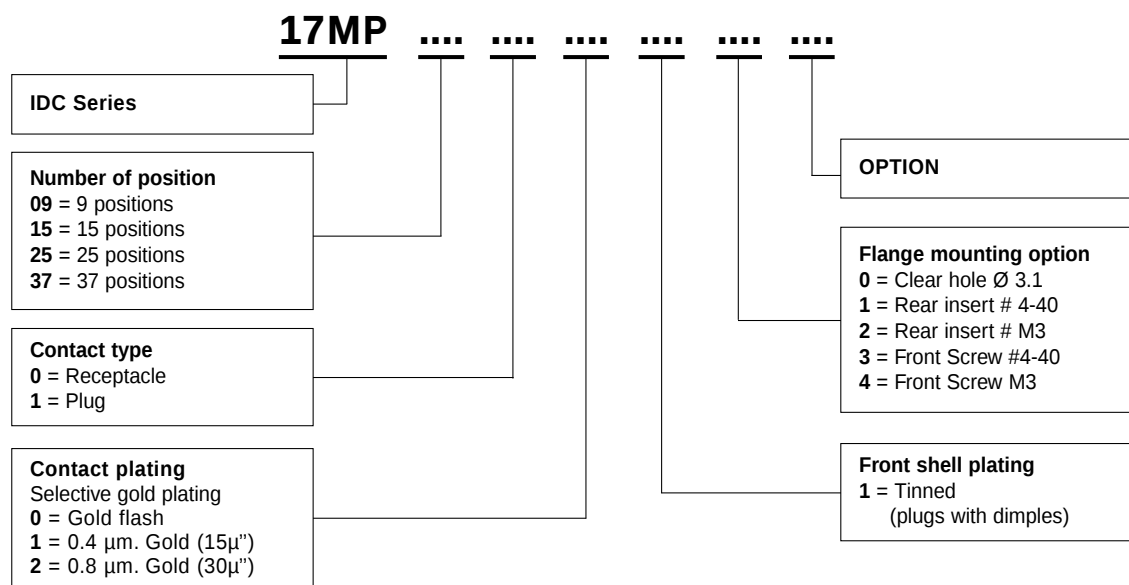
Plug version

Nb OF CONTACTS	DIMENSIONS mm (inch)			
	A	B	C	D
9	30.81 (1.21)	16.92 (0.67)	24.99 (0.98)	14.90 (0.59)
15	39.14 (1.54)	25.25 (0.99)	33.32 (1.31)	23.00 (0.91)
25	53.04 (2.09)	38.96 (1.53)	47.04 (1.85)	36.90 (1.45)
37	69.32 (2.73)	55.42 (2.18)	63.50 (2.50)	59.30 (2.33)

Tooling for IDC connectors

Terminating frame Ref: 21046			
Terminating head Ref: 976 MC			
Connector holders references			
Number of Contacts	Male	Female	
09	991 MC	992 MC	
15	993 MC	994 MC	
25	995 MC	996 MC	
37	997 MC	998 MC	
Hand tool Ref: 980 MC			Wiring with step by step movements + wire cutting
Hand tool Ref: 989 MC			Repairing single insertion tool

How to order



Do not hesitate to contact us for further information

Amphenol

Amphenol Socapex
 Telecom Business Unit
 21, chemin du Défois - BP 349
 F - 39100 Dole
 Fax: +33 (0) 3 84 82 94 11
<http://www.dsubconnector.com>
 Technical support
 Tel.: +33 (0) 3 84 82 94 00

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D'Sub Metallic Hoods

DTZK & DVZK series



MAIN CHARACTERISTICS

- **Material and plating:**
Zinc die-cast, nickel plated
- **Cable strainrelief:**
Steel fiber reinforced Polycarbonate UL94V-0
- **Temperature range:**
-55°C to 125°C
- **Cable diameter:**
4 to 13 mm
- **Attenuation factor:**
> 40 dB between 30 MHz and 1 GHz
- **Approvals:**
VDE 0871 - FCC 20780 - 89 / 336 / EU

DESCRIPTION

The new Amphenol metallic hoods series for D'Sub connectors offers protection from magnetic and radio interferences to cable assemblies.

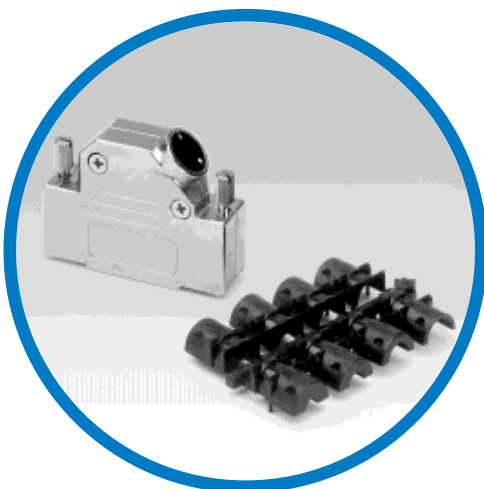
Easily assembled these hoods are suitable for all industrial and telecom applications.

*Shield
Your cable
assemblies!*

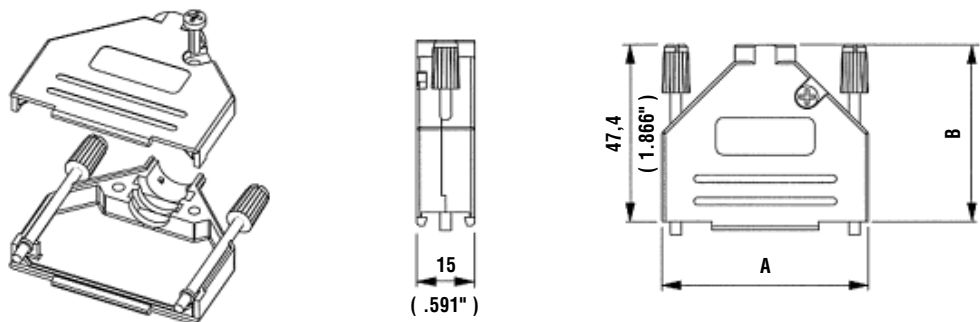
APPLICATIONS

- Industrial
- Military
- Telecom
- Any application requiring EMI/RFI protection

D'SUB ACCESSORIES

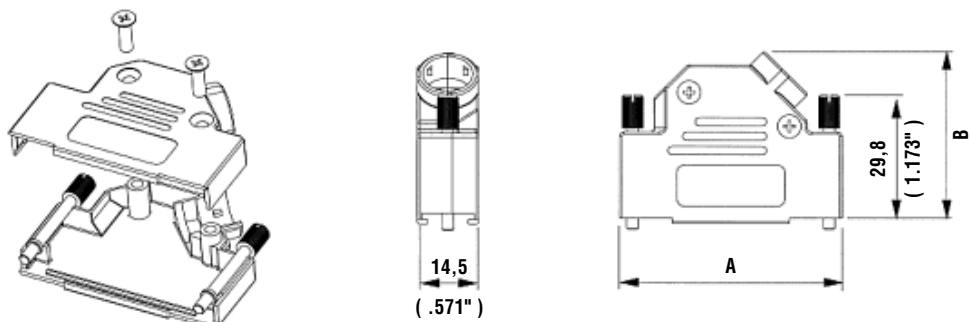


DTZK Series

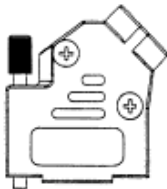


Part number	A	B
17D TZK 9K	21 (.827")	38,3 (1.508")
17D TZK 15K	39,5 (1.555")	40,5 (1.594")
17D TZK 25K	54,4 (2.144")	47,3 (1.862")
17D TZK 37K	70,9 (2.791")	52,2 (2.055")

DVZK Series



Part number	A	B
17D VZK 9K	31 (1.220")	36,2 (1.425")
17D VZK 15K	39,5 (1.555")	40,2 (1.583")
17D VZK 25K	53,2 (2.094")	40,2 (1.583")
17D VZK 37K	69,7 (2.744")	40,2 (1.583")

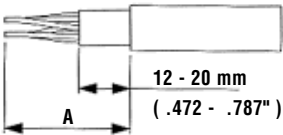


Size 9 equipped with only one screw

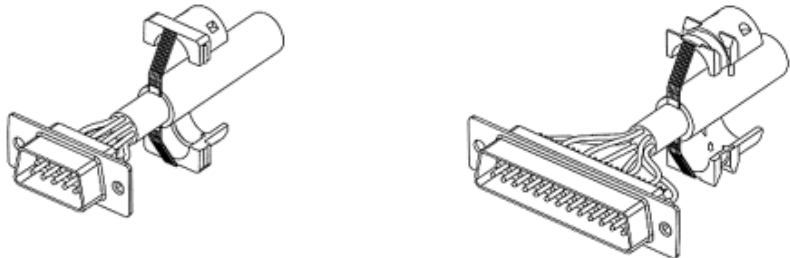
Assembly Instructions DTZK Series

Type	A
17D TZK 9K	30
17D TZK 15K	(1.181")
17D TZK 25K	40
17D TZK 37K	(1.575")

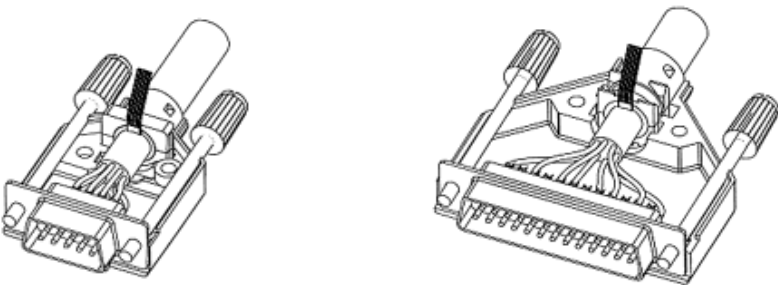
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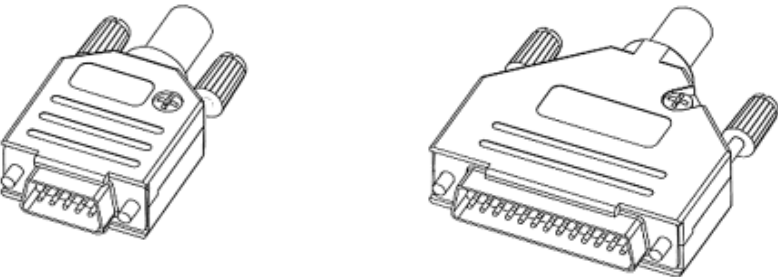
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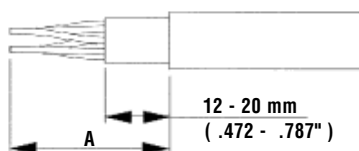
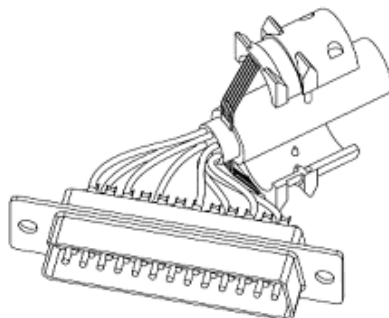
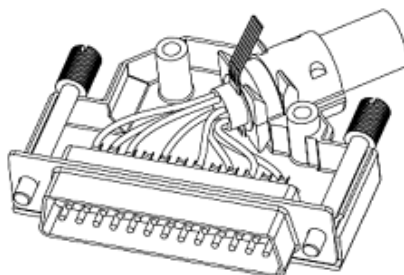


3.



4.



Assembly Instructions DVZK Series**1.****2.****3.****4.**

Type	A
17D VZK 9K	30
17D VZK 15K	(1.181")
17D VZK 25K	45
17D VZK 37K	(1.772")

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

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The information given in this document are as a guideline only.
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SELECTION CHART

D-SUB RANGE

Series	Standard	Approvals	Mating cycles	Contact terminations						Contacts	Inserts UL94V0	Operating temperature	Voltage rating	Dielectric voltage	Current rating	Insulation resistance	Contact resistance
				Solder	Crimp	Through holes	W. wrapp.	IDC	SMT								
17D	HE5 - MIL	NFC93425 - UL	100 to 200	X		X	X			Brass	Black thermoplastic	-55°C + 85°C 125°C peaks	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A	> 5000 MΩ	< 8,5 mΩ
17DF	HE501 - MIL	NFC93425 - UL Lnz - GAMT1A	500	X		X	X			Brass Bronze	Black thermoplastic	-55°C + 125°C	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A	> 5000 MΩ	< 5 mΩ
17DF-E	HE501	NFC93425 - UL Lnz - GAMT1A	500			X				Bronze	Black thermoplastic	-55°C + 85°C 125°C peaks	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	Ask for derating curves	> 5000 MΩ	< 1 mΩ
17DM	HE508	NFC93425 - UL GAMT1A	500	X		X	X			Brass Bronze	Green DAP	-55°C + 155°C	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A	> 5000 MΩ	< 5 mΩ
17DMM	MIL C 24308	QPL	500	X		X	X			Brass Bronze	Green DAP	-55°C + 155°C	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A	> 5000 MΩ	< 5 mΩ
17DMW	HE507 - MIL	NFC93425 - UL GAMT1A	500	X		X	X			Brass Bronze	Green DAP	-55°C + 155°C	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A 40 A	> 5000 MΩ	< 5 mΩ
17RR	HE5	NFC93425 - UL	100 to 500		X					Brass	Black thermoplastic	-55°C + 85°C 125°C peaks	500 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A	> 5000 MΩ	< 10 mΩ
17DTK	HE5	NFC93425 - UL	100 to 500	X	X	X				Brass	Black thermoplastic	-55°C + 105°C 125°C peaks	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A	> 5000 MΩ	< 8,5 mΩ
17DFMP	HE501	NFC93425 - UL	100 to 500					X		Brass Bronze	Black thermoplastic	-55°C + 125°C	300 V RMS under 50 Hz	750 V RMS under 50 Hz	5 A	> 5000 MΩ	< 10 mΩ
17SD	HE5 - MIL	NFC93425 - UL	100 to 500	X		X				Brass	Black thermoplastic	-55°C + 85°C 125°C peaks	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	5 A	> 5000 MΩ	< 10 mΩ
17TS	HE5 - MIL	UL	100 to 200	X		X				Brass	Black thermoplastic	-55°C + 85°C	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	5 A	> 5000 MΩ	< 10 mΩ
17HD	HE5	UL	100 to 500	X		X				Brass	Black thermoplastic	-55°C + 85°C	300 V RMS under 50 Hz	700 V RMS under 50 Hz	5 A	> 5000 MΩ	< 15 mΩ
17FCC	HE501 - MIL	UL - vibration MIL STD 1344 - FCC20780	100 to 500	X		X				Bronze	Black thermoplastic	-40°C + 85°C	100 V	300 V RMS under 50 Hz	5 A	> 5000 MΩ	< 10 mΩ
17DFR	HE5	GAMT1C - CSA - UL	100 to 500					X		Brass	Black thermoplastic	-25°C + 105°C max. cable	125 V RMS under 50 Hz	780 V RMS under 50 Hz with cable	1 A with cable	> 1000 MΩ with cable	< 10 mΩ
17HT-N	MIL	UL	100 to 500	X		X			X	Brass	High temperature black thermoplastic SMT compatible	-55°C + 105°C 125°C peaks	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A	> 5000 MΩ	< 10 mΩ
17HT-H		MIL - UL	100 to 500	X		X			X	Brass	High temperature black thermoplastic SMT compatible	-55°C + 105°C 125°C peaks	300 V RMS under 50 Hz	700 V RMS under 50 Hz	5 A	> 5000 MΩ	< 15 mΩ
17TW	HE507 - MIL	UL - CSA NFC93425	100 to 500	X		X			X	Brass	High temperature black thermoplastic SMT compatible	-55°C + 105°C 180°C peaks	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	7.5 A 40 A	> 5000 MΩ	< 10 mΩ
17SM	HE5 - MIL	UL - CSA NFC93425	100 to 500						X	Brass	High temperature black thermoplastic SMT compatible	-55°C + 105°C 125°C peaks	300 V RMS under 50 Hz	1000 V RMS under 50 Hz	5 A	> 5000 MΩ	< 10 mΩ