

GENERAL DESCRIPTION:

Amphenol's line of D-Subminiature rack and panel connectors is part of an industry standard for applications requiring reliable, rugged, connectors. These connectors are designed to accommodate rack and panel, cable to panel and cable to cable applications. D-Subminiature connectors are pin and socket devices that employ contacts encased in a molded dielectric insert surrounded by a "D" shaped shell for polarization.

MARKETS:

Amphenol D-Subminiature connectors can be used in commercial, industrial or military markets. We offer a broad selection of dielectric materials and contact styles and configurations to meet all of your design requirements.

APPLICATIONS INCLUDE:

- Business equipment
- Electronic office systems
- Data communications
- Medical equipment
- Mobile communications
- Consumer electronics

AMPHENOL D-SUB FEATURES:

- Industry standard interfacing RS232 and RS449 mating configurations per EIA standards.
- UL Component Recognition File number E64911 (617, 841, 17, 17D, 17HD, ED, 17RR, 17SD, 117DF, 17BH, 17TW)
- Variations available:
 - Solder cup
 - Straight pc mount solder
 - Right angle pc mount solder
 - Solderless wire wrap
 - Crimp
 - High Density Right Angle
 - High Density Straight
 - Stacked Right Angle PC mount
 - Surface mount
- Five shell sizes offer widest choice of contact positions: 9, 15, 25, 37 and 50 in standard density and 15, 26, 44, 62 and 78 positions in high-density.
- Inserts are flame-retardant thermoplastic.
- Accessories for all applications are available including strain reliefs, cable clamps, shielded backshells, mating hardware and connector to pc board mounting hardware.
- Automatic and manual tooling is available for both crimp and IDC versions.
- Contact Amphenol for lease information.

Dimensions and characteristics are subject to change without notice.

Fixed Machined Contact Connector

- Standards:
- UL File: E119881
 - Connectors according to MIL C24308

SPECIFICATIONS:

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, 118μ" up to 197μ" (3μm up to 5μm) tinned over nickel 78μ" up to 118μ" (2μm up to 3μm)
Boardlock	Tin-lead plating 157μ" up to 236μ" (4μm up to 6μm) over nickel
Screwlock	78μ" up to 118μ" (2μm up to 3μm) Brass, 236μ" up to 394μ" (6μm up to 10μm) tinned over nickel 78μ" up to 118μ" (2μm up to 3μm)
Contacts	D: brass DF: pin = brass Socket = copper alloy
Right Angle Version	Selective gold in mating area over 78μ" up to 118μ" (2μm up to 3μm) nickel; 118μ" up to 197μ" (3μm up to 5μm) tin-lead on termination area over 78μ" up to 118μ" (2μm up to 3μm) nickel
Straight Version	Full gold plating over 78μ" up to 118μ" (2μm up to 3μm) 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

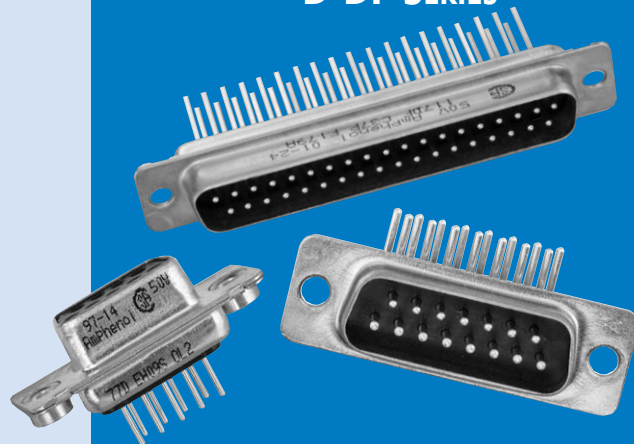
Operating Temperature	D: -67°F (-55°C) to +185°F (85°C), peak at 257°F (125°C) DF: -67°F (-55°C) to + 257°F (125°C)
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MECHANICAL DATA

No. of Contacts	Mate (max.)	Unmate (min.)
9 (size E)	6.74 (3.05)	0.79 (0.36)
15 (size A)	11.24 (5.09)	1.01 (0.46)
25 (size B)	18.66 (8.44)	1.8 (0.81)
37 (size C)	27.65 (12.51)	2.47 (1.1)
50 (size D)	32.38 (14.65)	3.56 (1.6)

INCHES (MM)

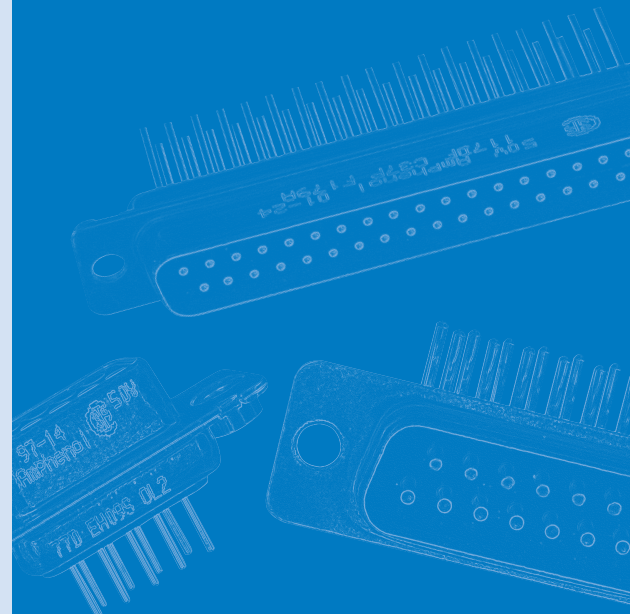
D-DF SERIES

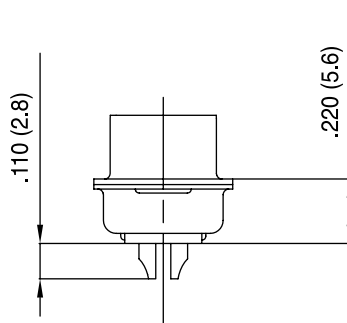
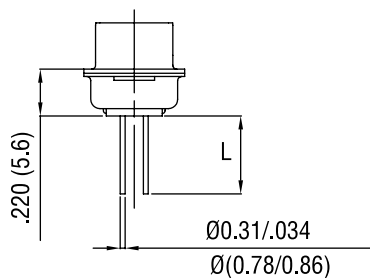


The Amphenol SD series features precision formed contacts, and 4 finger boardlocks.

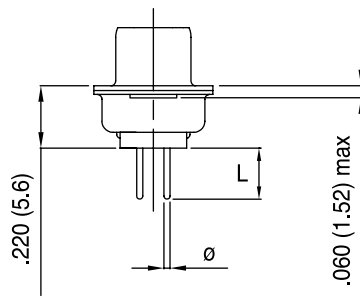
This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements.

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



Solder cup*Wire Wrap*

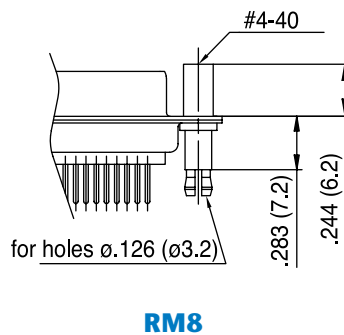
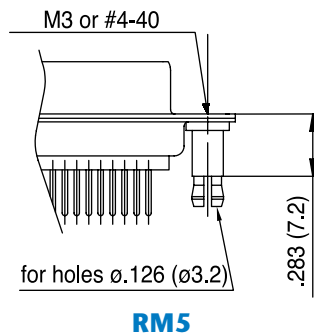
Termination	Nb of wraps	L
F179	2	.378 (9.6)
F179A	3	.512 (13)

Straight PCB

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

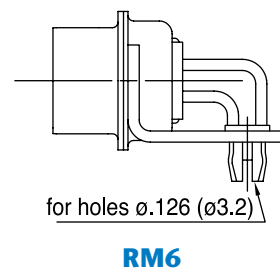
Grounding tabs

For straight termination



For R/A termination

FOR PCB .062 (1.6)



ORDERING INFORMATION

XXXXXX X X XX X XXXXXX XXXX X

8μ" (0.2μm)	17D: yellow chromated shell 77D: tinned shell for receptacle 717D: tinned shell + dimples for plug
20μ" (0.5μm)	17DF: yellow chromated shell 77DF: tinned shell for receptacle 717DF: tinned shell + dimples for plug
30μ" (0.76μm)	117DF: yellow chromated shell 177DF: tinned shell for receptacle 777DF: tinned shell + dimples for plug

Shell size: E, A, B, C, D

Mounting Options:

H rear insert 4-40
G rear insert M3
F float mounting
no digit standard rivet .122 (ø 3.1)
*H, G must also be used to specify the threading of RM5 grounding tabs.

Configuration: 09, 15, 25, 37, 50

Contact type:

P pin
S socket

For specific product

Grounding tabs:

RM5 for straight PCB mounting*
RM8 for straight PCB mounting + female lock
RM6 for right angle PCB mounting
VF front screwlock 4-40
VFM front screwlock M3
VF2 removable screwlock 4-40
VFM2 removable screwlock M3

Termination:

solder cup: no digit

Wire Wrap:

F179 length .378 (9.6)
F179A length .512 (13)

Straight PCB:

U length .126 (3.2) tail ø.024 (ø0.6)
V length .094 (2.4) tail ø.040 (ø1.02)
T length .157 (4) tail ø.024 (ø0.6)
OL2 length .216 (5.5) tail ø.024 (ø0.6)

Right Angle Connector:

MIL footprint

without bracket: C tail ø.040 (ø1.02)
A4 tail ø.024 (ø0.6)
plastic bracket: AJ3 tail ø.040 (ø1.02)
AJ4 tail ø.024 (ø0.6)
metal bracket: A tail ø.040 (ø1.02)
AM4 A ø.519 (13.2)
AZ4 A ø.453 (11.5)
AM4B footprint ø.590 (14.99)

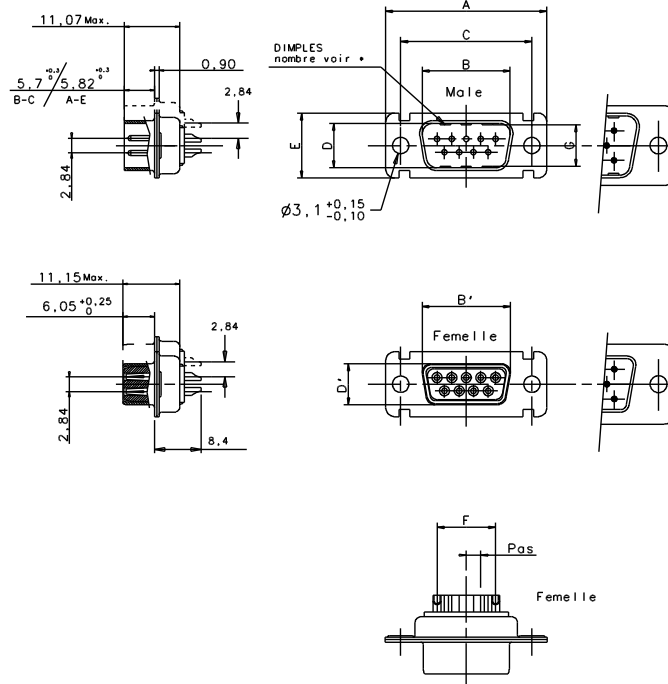
European footprint

without bracket: 1AON X .100 (2.54)
1BON X .112 (2.84)
plastic bracket: 1APN X .100 (2.54)
1BPN X .112 (2.84)
1AUN X .100 (2.54)
1BUN X .112 (2.84)
metal bracket: 1AMN X .100 (2.54)
1BMN X .112 (2.84)
1ATN X .100 (2.54)
1BTN X .112 (2.84)

: Standard options

For special request, please consult factory

For Filtered D-Sub, see page 56.



Boite boîtier	A	B'	B	C	D'	D	E	F ±0,05	Pas	G	*
E	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07
A	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07
B	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07
C	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07
D	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07	11,07

TECHNICAL DATA

" D " SUBMINIATURE CONNECTORS

SHELL : **Material : Steel**
Plating : 100µ" Tin over 78µ" Nickel

BODY : Glass filled thermoplastic
Flame retardant to UL 94 V-0 .
Colour : black .

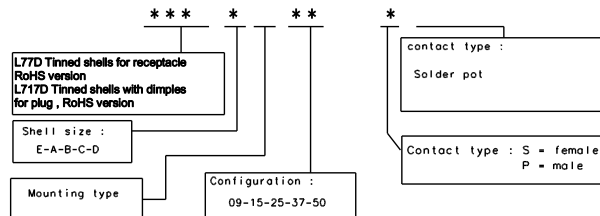
CONTACTS **Material for sockets : Brass**
Material for pins : Brass
Plating of mating area : 8µ" Gold over 78µ" Nickel

ELECTRICAL Voltage rating 300 V Rms to 50Hz .
Nominal current 7,5 A (size20)
Voltage proof >1000 V Rms to 50 Hz
Contact resistance <8.5m Ohms .
Insulator resistance >5000 M Ohms.

CLIMATIC Temperature range -55°C +85°C
Damp heart 21 days (40°C - 95 % RH)

MECHANICAL Insertion force per contact 1,2N < F <2,5 N
Extraction force per contact 0,4 N mini
Mating and unmating force size E 30N maxi 3,5N mini
A 50N maxi 4,5N mini
B 83N maxi 8,0N mini
C 123N maxi 11N mini
D 166N maxi 14,5N mini
(With or without dimples)

MARKING Amphenol -(serie number)
Commercial reference
Manufacturing date



Amphenol Socapex
Usine de Dole

ECHELLE: 1:5

PLAN NOTICE

DOSSIER:

Creation plan 14/01/98

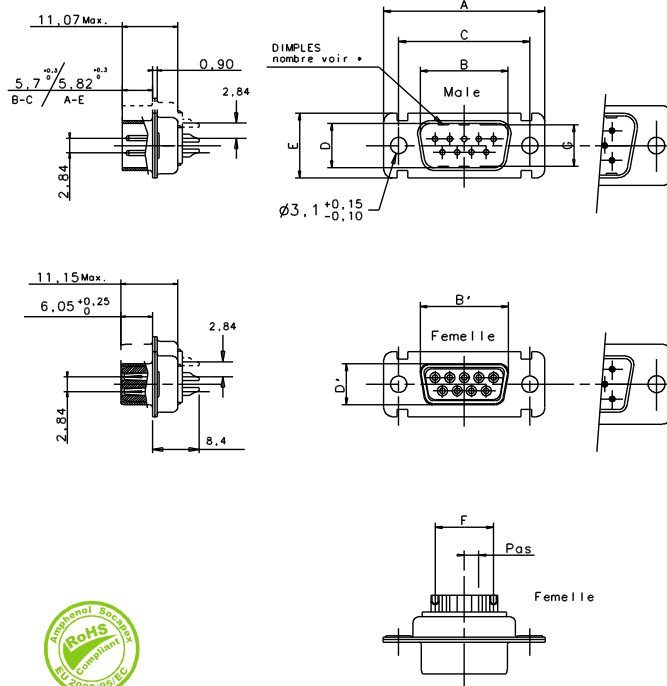
IND. MODIFICATION DATE Execut Approved

N SERIE 017F

DESIGNATION

a souder / solder pot 17D++++

COMMUNICATION ET UTILISATION INTERDITES SAUF AUTORISATION



TECHNICAL DATA

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Flame retardant to UL 94 V-0 .
Colour : black .

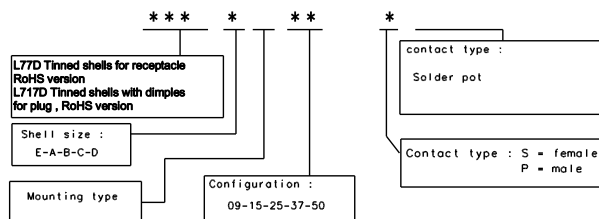
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B 83N maxi 8.0N mini
C 123N maxi 11N mini
D 166N maxi 14.5N mini
(With or without dimples)

MARKING Amphenol -(serie number)
Commercial reference
Manufacturing date



Boite boiler	A	B'	B	C	D'	D	E	F ±0.05	Pas	G	*
E	1.1	1.6	1.7	2.5	3.0	3.4	4.8	10.98	2.74	7.62	2x3
A	1.1	1.6	1.7	2.5	3.0	3.4	4.8	19.20	2.74	7.62	2x5
B	1.1	1.6	1.7	2.5	3.0	3.4	4.8	33.12	2.76	7.62	2x8
C	1.1	1.6	1.7	2.5	3.0	3.4	4.8	49.68	2.76	7.62	2x12
D	1.1	1.6	1.7	2.5	3.0	3.4	4.8	44.20	2.76	10.5	2x12

Amphenol Socapex
Usine de Dole

Echelle: 1:5

PLAN NOTICE

DOSSIER:

N° 017F

DESIGNATION

a souder / solder pot

17D++++

COMMUNICATION ET UTILISATION INTERDITES SAUF AUTORISATION

17D-80

DATE DE FINAGE

N° CLIENT

N° OUTIL

N° ETUDE