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.

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 78µ" up to 118µ" (2µm up to 3µm)
Screwlock	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

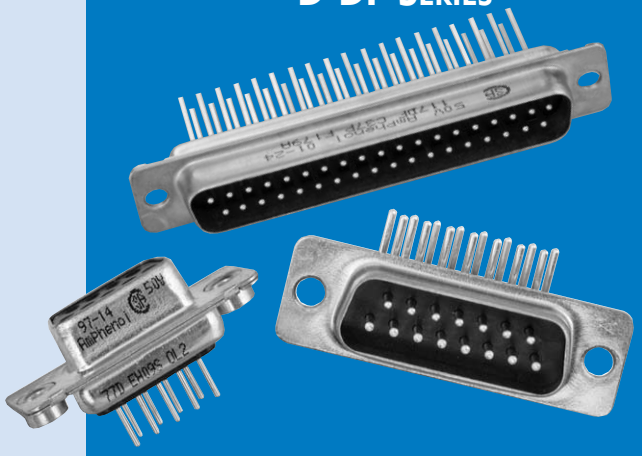
Operating Temperature	D: -67°F (-55°C) to +185°F (85°C), peak at 257°F (125°C) DF: -67°F (-55°C) to + 257°F (125°C)

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)

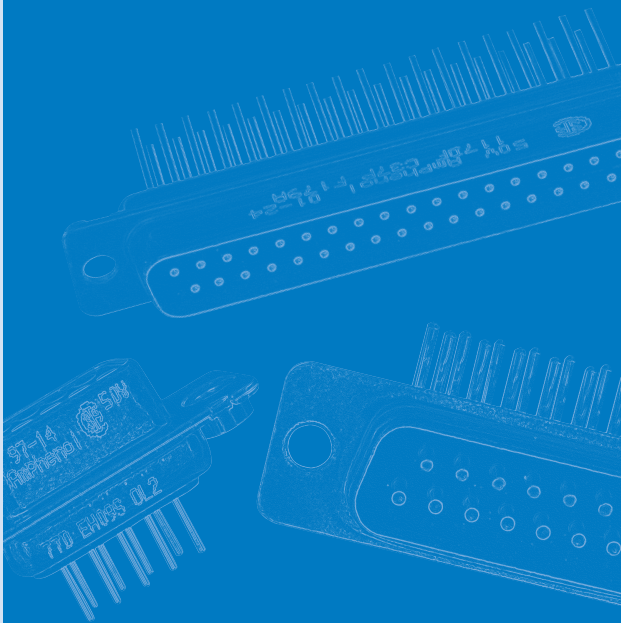
D-DF SERIES



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

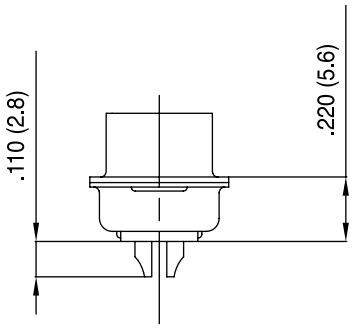
This series gives you Amphenol's high standards of quality and reliability to meet all of your commercial requirements.

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

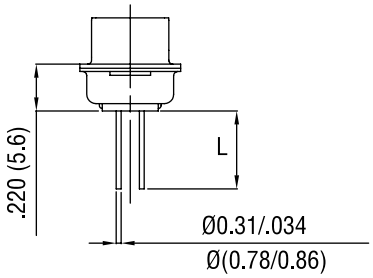


TELEPHONE: (416) 754-5656 FAX: (416) 754-8668 E-MAIL: SALES@AMPHENOLCANADA.COM

Solder cup

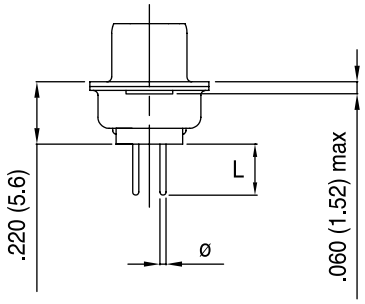


Wire Wrap



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

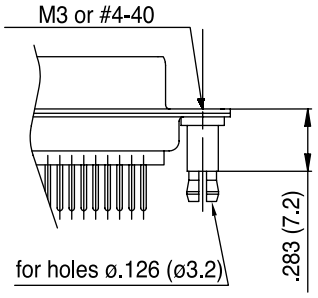
Straight PCB



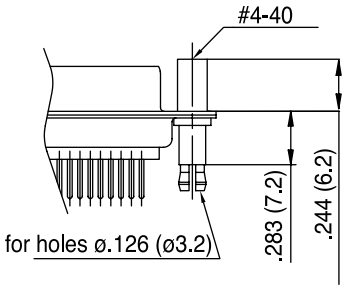
Termination	Ø	L
U	.024 (0.6)	.126 (3.2)
V	.040 (1.02)	.095 (2.4)
T	.024 (0.6)	.157 (4)
OL2	.02 (0.6)	.217 (5.5)

Grounding tabs

For straight termination

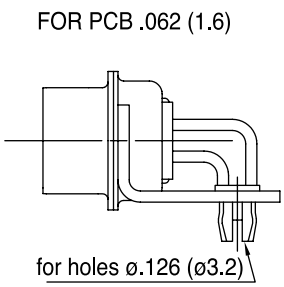


RM5



RM8

For R/A termination



RM6

ORDERING INFORMATION

XXXXX X X XX X XXXXX XXXX X

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

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

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:

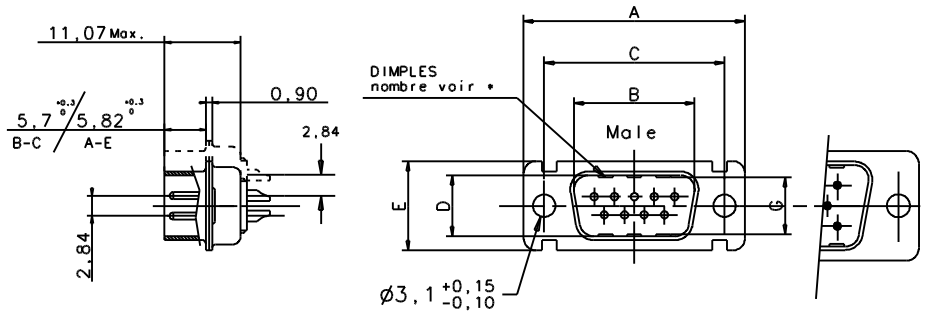
MIL footprint			
without bracket:	C	tail	ø.040 (ø1.02)
	A4	tail	ø.024 (ø0.6)
plastic bracket:	AJ3	tail	ø.040 (ø1.02)
	AJ4	tail	ø.024 (ø0.6)
metal bracket:	A	tail	ø.040 (ø1.02)
	AM4	A	ø.519 (13.2)
	AZ4	A	ø.453 (11.5)
	AM4B	footprint	ø.590 (14.99)

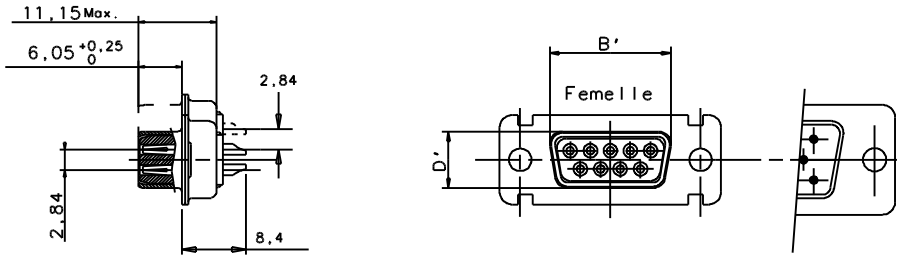
European footprint			
without bracket:	1AON	X	.100 (2.54)
	1BON	X	.112 (2.84)
plastic bracket:	1APN	X	.100 (2.54)
	1BPN	X	.112 (2.84)
	1AUN	X	.100 (2.54)
	1BUN	X	.112 (2.84)
metal bracket:	1AMN	X	.100 (2.54)
	1BMN	X	.112 (2.84)
	1ATN	X	.100 (2.54)
	1BTN	X	.112 (2.84)

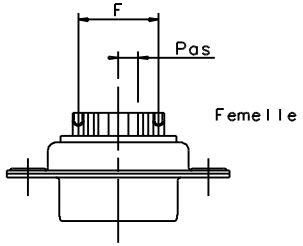
: Standard options

For special request, please consult factory

For Filtered D-Sub, see page 56.







Taille boitier	A	B'	B	C	D'	D	E	F ±0,05	Pas	G	*
E	31,19 30,43	16,46 16,21	17,04 16,79	25,12 24,87	8,03 7,77	8,48 8,23	12,93 12,17	10,98	2.74	7,62	2x3
A	39,52 38,76	24,79 24,54	25,37 25,12	33,45 33,20	8,03 7,77	8,48 8,23	12,93 12,17	19,20	2.74	7,62	2x5
B	53,42 52,65	38,51 38,25	39,09 38,84	47,17 46,91	8,03 7,77	8,48 8,23	12,93 12,17	33,12	2.76	7,62	2x8
C	69,70 68,94	54,97 54,71	55,55 55,30	63,63 63,37	8,03 7,77	8,48 8,23	12,93 12,17	49,68	2.76	7,62	2x12
D	67,31 66,55	52,56 52,30	52,93 52,68	61,24 60,99	10,87 10,62	11,33 10,95	15,75 14,99	44,20	2.76	10,5	2x12

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 .

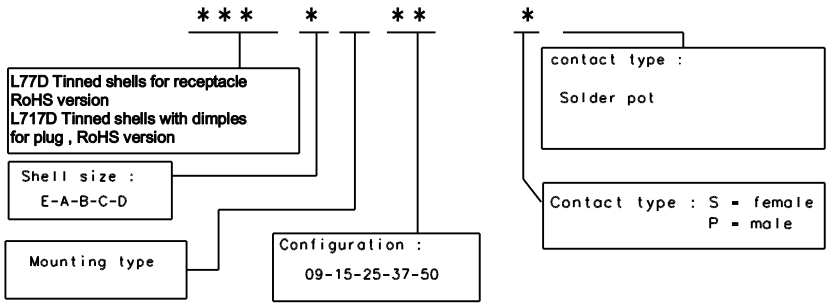
CONTACTS **Material for sockets : Brass**
Material for pins : Brass
Plating of mating area : 8µ" Gold over 78µ" Nickel

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 max 14.5N mini
(With or without dimples)

MARKING Amphenol - ....(serie number)
Commercial reference
Manufacturing date



N CLIENT
N OUTIL
N ETUDE
DATE DU TIRAGE
17D-80

Amphenol Socapex
Usine de Dole

ECHELLE:1.5

A | Creation plan | 14/01/98 | Quere

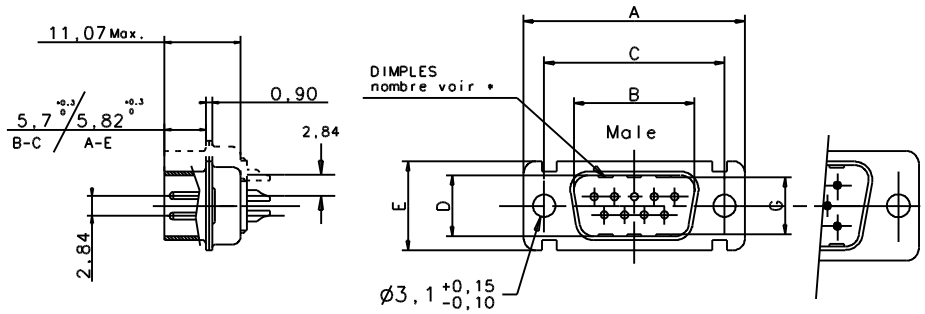
IND. | MODIFICATION | DATE | Execut | Approb

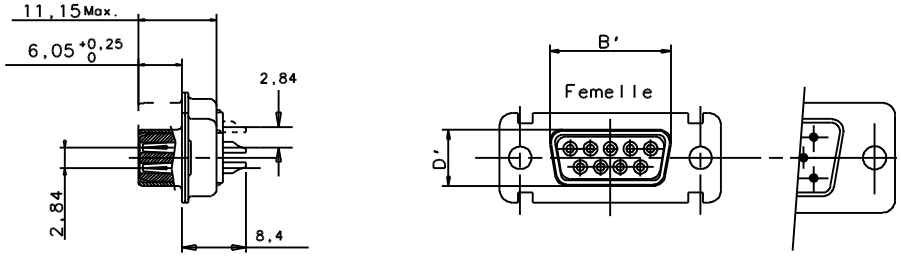
PLAN NOTICE

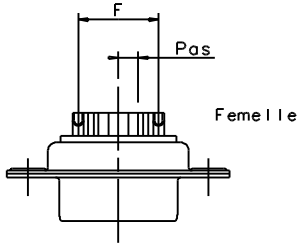
DOSSIER:

N SERIE 017F

DESIGNATION a souder / solder pot 17D++++







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 .

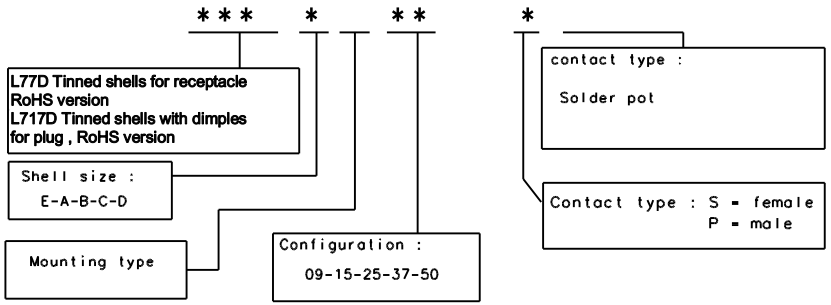
CONTACTS **Material for sockets : Brass**
Material for pins : Brass
Plating of mating area : 8µ" minimum Gold over 78µ" Nickel

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 max 14.5N mini
(With or without dimples)

MARKING
Amphenol - ....(serie number)
Commercial reference
Manufacturing date



Taille boitier	A	B'	B	C	D'	D	E	F ±0,05	Pas	G	*
E	31,19 30,43	16,46 16,21	17,04 16,79	25,12 24,87	8,03 7,77	8,48 8,23	12,93 12,17	10,98	2.74	7,62	2x3
A	39,52 38,76	24,79 24,54	25,37 25,12	33,45 33,20	8,03 7,77	8,48 8,23	12,93 12,17	19,20	2.74	7,62	2x5
B	53,42 52,65	38,51 38,25	39,09 38,84	47,17 46,91	8,03 7,77	8,48 8,23	12,93 12,17	33,12	2.76	7,62	2x8
C	69,70 68,94	54,97 54,71	55,55 55,30	63,63 63,37	8,03 7,77	8,48 8,23	12,93 12,17	49,68	2.76	7,62	2x12
D	67,31 66,55	52,56 52,30	52,93 52,68	61,24 60,99	10,87 10,62	11,33 10,95	15,75 14,99	44,20	2.76	10,5	2x12

Amphenol Socapex
Usine de Dole

ECHELLE:1.5

A | Creation plan | 14/01/98 | Quere

IND. | MODIFICATION | DATE | Execut | Approb

PLAN NOTICE

DOSSIER:

N SERIE 017F

DESIGNATION a souder / solder pot **17D++++**

17D-80

N CLIENT | N OUTIL | N ETUDE | DATE DU TIRAGE