
D Subminiature Connectors



The ITT Cannon D Subminiature family of connectors has grown to include a wide variety of styles, options and accessories and is often the most economical solution to any interconnect problem. Ideally suited for both commercial/industrial applications and military/aerospace applications, ITT Cannon D Subminiature connectors have found worldwide acceptance in a multitude of applications ranging from office equipment to satellites.

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On the Cover ◀
 Filter D, Combo D®,
 Commercial Micro D
 (MDSM), Pressfit D,
 and Standard D

Combo D® is a registered trademark of ITT Cannon in the United States.
 ◆ Connector footprint measured from the front shell.
 ◆◆ Connector footprint measured from the rear shell.

D*NG - Straight Pressfit Termination

See pages 4-5.

The D*NG is based upon the specification CECC75-301-802. These connectors provide a low-cost alternative to traditional through hole solder contacts. Utilizing stamped "Eye of the Needle" compliant contact tails per IEC-352-5, the parts are quickly and easily mounted onto PCBs without soldering, crimping or specialized tooling. The socket contact engaging area utilizes a "spoon" shape with four points of interconnection. Hardware options provide flexibility and ensure that the final product fits the electrical requirements of any application.

Product Features

Quick and easy press-in installation without specialized tooling
 "Spoon" socket contact provides improved interface compared to "Tuning Fork"
 Closed-entry socket for secure blind mating
 Front-shell only design based on CECC 75-301-802
 "Eye of the Needle" compliant contact tails
 Press-in bolt for ground continuity
 #4-40 UNC and M3 hardware options

D*M Straight Solder Termination (Machined) — Standard PC Tails

See pages 6-7.

D*M straight PCB connectors, equivalent to MIL-C-24308 qualified versions (except for finishes) for printed circuit boards and backplanes in demanding applications. Additional contact lengths, hardware and finish options available; consult factory for details.

Product Features

7.5 A current capacity
 Machined contacts
 2 contact finishes
 Optional vertical standoffs, screw locks, and boardlocks (4 prongs)
 UL file number E8572
 Dimensionally compatible with Combo D®

ZD* - Straight Solder Termination (Stamped)

See pages 8-9.

ZD* straight connectors are available for applications where price is the primary driver. They are available with or without boardlocks and screw locks.

Product Features

Stamped contacts with 5 A current capacity
 Economical
 Optional vertical standoffs with optional harpoon style boardlocks or screw locks

D* - Straight Solder Termination (Machined) — European PC Tails

See pages 10-11.

D* straight connectors are available for high performance uses according to DIN 41652. Available with European length OL contacts.

Select contact finish from 2 performance classes.

Product Features

High performance commercial connectors
 Two contact finish performance classes
 Optional vertical standoffs, threaded inserts and pushfits/boardlocks
 OL2 contact length, other lengths available
 Tin plated contact PC tails (pin & socket)
 Machined contacts

D* - Wrap Post Termination

See pages 12-13.

D* straight connectors are available for high performance uses according to DIN 41652. Contacts available in two popular lengths.

Product Features

High performance commercial class connectors
 Two contact lengths for 2 or 3 wraps
 Machined contacts

Specifications

Current Rating	5 A / 25°C, 3.5 A / 70°C ambient
Temperature Rating	-55°C to 125°C
Contact Resistance	10 mΩ
Test Voltage	1200 Vrms at Sea Level
∅ Plated Through Hole	1,09 - 0,94 (.043 - .037)
PC Tail Press-in Force	100N/contact max.
PC Tail Push-out Force	30N/contact min.
PC Board Thickness	3,20 - 1,60 (.125 - .062)

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None (color: black)
Contact	Copper Alloy	Gold over Nickel (Standard) or Gold over PdNi (-408)
Hardware	Steel/Copper Alloy	Tin/Zinc

Specifications

Temperature Rating	-55°C to 125°C
Current Rating	7.5 A
Contact Resistance	55 millivolt max at 7.5 A test current
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None (color: dark green)
Contact	Copper Alloy	Gold over Nickel. Terminating end Tin (Socket only)
Hardware	Steel/Copper Alloy	Tin/Zinc

Specifications

Temperature Rating	-55°C to 105°C
Current Rating	5 A
Contact Resistance	15 mΩ
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94-0	None (color: black)
Contacts	Copper Alloy	Gold over Nickel
Hardware	Steel/Copper Alloy	Tin/Zinc

Specifications

Temperature Rating	-55°C to 125°C
Current Rating	5 A
Contact Resistance	10 mΩ
Dielectric Withstanding Voltage	1250 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None (color: dark green)
Contacts	Copper Alloy	Gold over Nickel in mating area, Tin on balance
Hardware	Steel/Copper Alloy	Tin/Zinc

Specifications

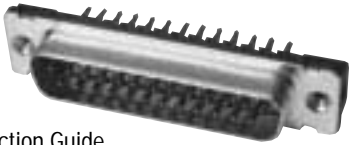
Temperature Rating	-55°C to 125°C
Current Rating	5 A
Contact Resistance	10 mΩ
Dielectric Withstanding Voltage	1250 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None (color: dark green)
Contact	Socket: Copper Alloy	Gold over Nickel. Terminating end Tin (Socket)
Hardware	Steel/Copper Alloy	Tin/Zinc

Straight Pressfit Termination

Plug



Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

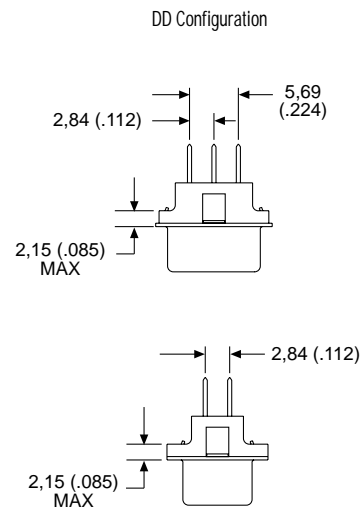
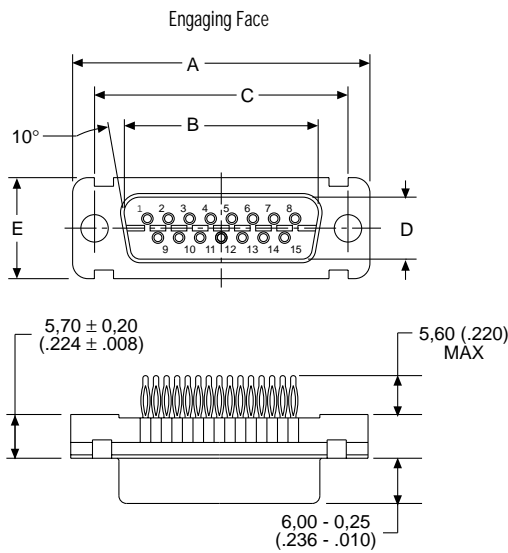
Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 274.
 For panel cutouts, see page 221.

Part Numbers

Shell Size	Layout	Through Hole	Clinch Nut # 4-40 UNC	Clinch Nut M3	Press-In Bolt # 4-40 UNC	Press-In Bolt M3
DE	9	DENG9P-P1	DENGE9P-P1	DENGX9P-P1	DENGZ9P-P1	DENGL9P-P1
DA	15	DANG15P-P1	DANGE15P-P1	DANGX15P-P1	DANGZ15P-P1	DANGL15P-P1
DB	25	DBNG25P-P1	DBNGE25P-P1	DBNGX25P-P1	DBNGZ25P-P1	DBNGL25P-P1
DC	37	DCNG37P-P1	DCNGE37P-P1	DCNGX37P-P1	DCNGZ37P-P1	DCNGL37P-P1
DD	50	DDNG50P-P1	DDNGE50P-P1	DDNGX50P-P1	DDNGZ50P-P1	DDNGL50P-P1

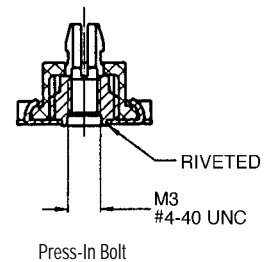
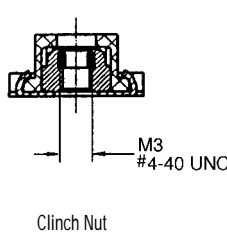
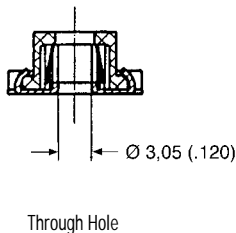
Note: For performance class 1 (gold over PdNi finish) add -408. Example: DENG9P-P1-408.



Dimensions

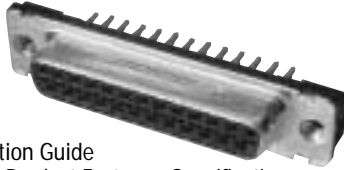
Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)

Mounting Types



Straight Pressfit Termination

Receptacle



Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

Part Numbers

Shell Size	Layout	Through Hole	Clinch Nut # 4-40 UNC	Clinch Nut M3	Press-In Bolt # 4-40 UNC	Press-In Bolt M3
DE	9	DENG9S-P1	DENGE9S-P1	DENGX9S-P1	DENGZ9S-P1	DENGL9S-P1
DA	15	DANG15S-P1	DANGE15S-P1	DANGX15S-P1	DANGZ15S-P1	DANGL15S-P1
DB	25	DBNG25S-P1	DBNGE25S-P1	DBNGX25S-P1	DBNGZ25S-P1	DBNGL25S-P1
DC	37	DCNG37S-P1	DCNGE37S-P1	DCNGX37S-P1	DCNGZ37S-P1	DCNGL37S-P1
DD	50	DDNG50S-P1	DDNGE50S-P1	DDNGX50S-P1	DDNGZ50S-P1	DDNGL50S-P1

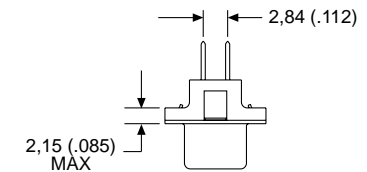
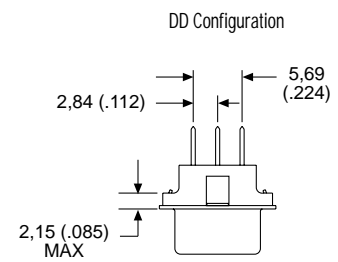
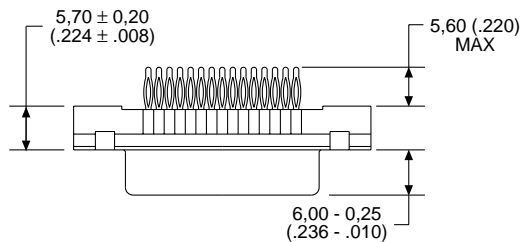
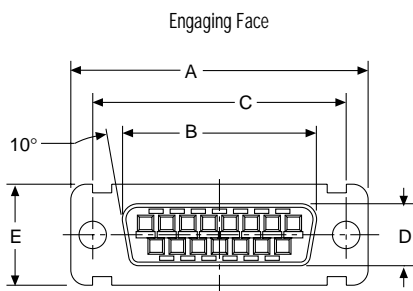
Note: For performance class 1 (gold over PdNi finish) add -408. Example: DENG9S-P1-408.

Reader's Resource

For contact cavity arrangements, see page 224.

For P.C. hole patterns, see page 274.

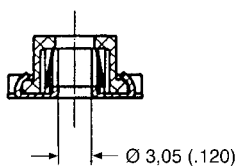
For panel cutouts, see page 221.



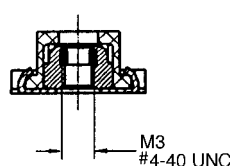
Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)

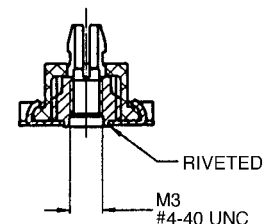
Mounting Types



Through Hole



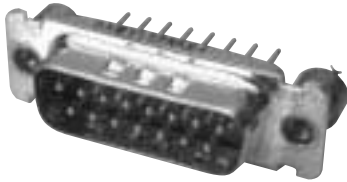
Clinch Nut



Press-In Bolt

Straight Solder Termination (Machined) — Standard PC Tails

Plug



Part Numbers

Shell Size	Layout	Standoff	Standoff & Boardlock	Standoff, Boardlock & Screw Lock
DE	9	DEM9PNK87	DEM9PNK87	DEM9PNK87
DA	15	DAM15PNK87	DAM15PNK87	DAM15PNK87
DB	25	DBM25PNK87	DBM25PNK87	DBM25PNK87
DC	37	DCM37PNK87	DCM37PNK87	DCM37PNK87
DD	50	DDM50PNK87	DDM50PNK87	DDM50PNK87

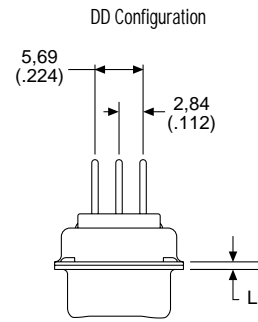
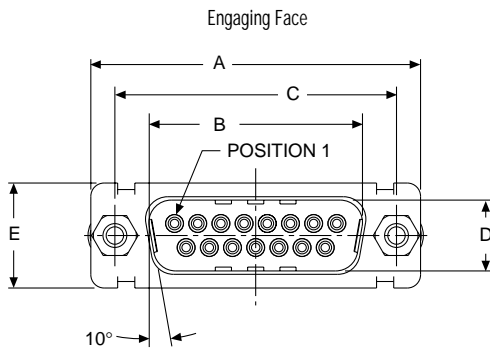
Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

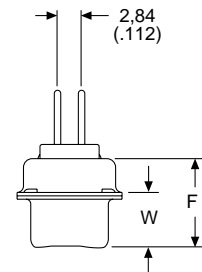
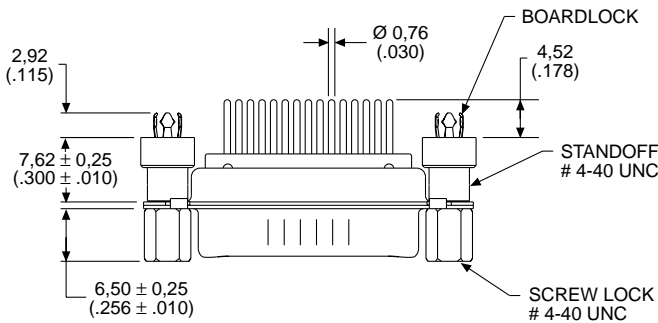
Note: For contacts with 30 microinches gold substitute K127 for K87. Example: DEMN9PNK127

Reader's Resource

- For contact cavity arrangements, see page 224.
- For P.C. hole patterns, see page 274.
- For panel cutouts, see page 221.
- For hardware views (Standard), see page 226.



Hardware removed for clarity



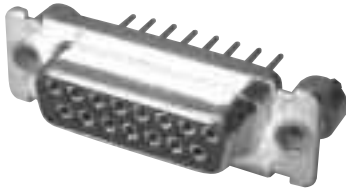
Hardware removed for clarity

Dimensions

Shell Size	A	B	C	D	E	F	W	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,368 (.0145)	±0,41 (.016)	±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)

Straight Solder Termination (Machined) — Standard PC Tails

Receptacle



Part Numbers

Shell Size	Layout	Standoff	Standoff & Boardlock	Standoff, Boardlock & Screw Lock
DE	9	DEM9SNA197	DEMZ9SNA197	DEMN9SNA197
DA	15	DAMV15SNA197	DAMZ15SNA197	DAMN15SNA197
DB	25	DBMV25SNA197	DBMZ25SNA197	DBMN25SNA197
DC	37	DCMV37SNA197	DCMZ37SNA197	DCMN37SNA197
DD	50	DDMV50SNA197	DDMZ50SNA197	DDMN50SNA197

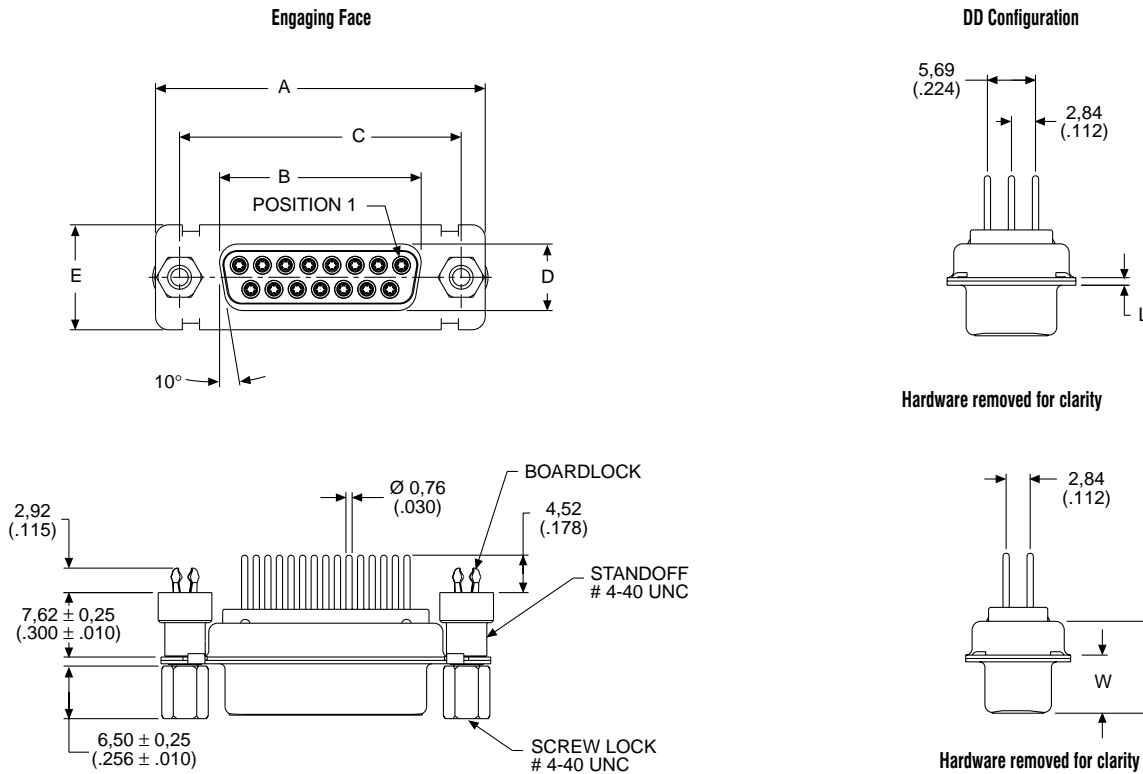
Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

Note: For contacts with 30 microinches gold substitute K126 for A197. Example: DEMN9SNK126

Reader's Resource

- For contact cavity arrangements, see page 224.
- For P.C. hole patterns, see page 274.
- For panel cutouts, see page 221.
- For hardware views (Standard), see page 226.



Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,38 (.015)	L ±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

Straight Solder Termination (Stamped)

Plug



Part Numbers

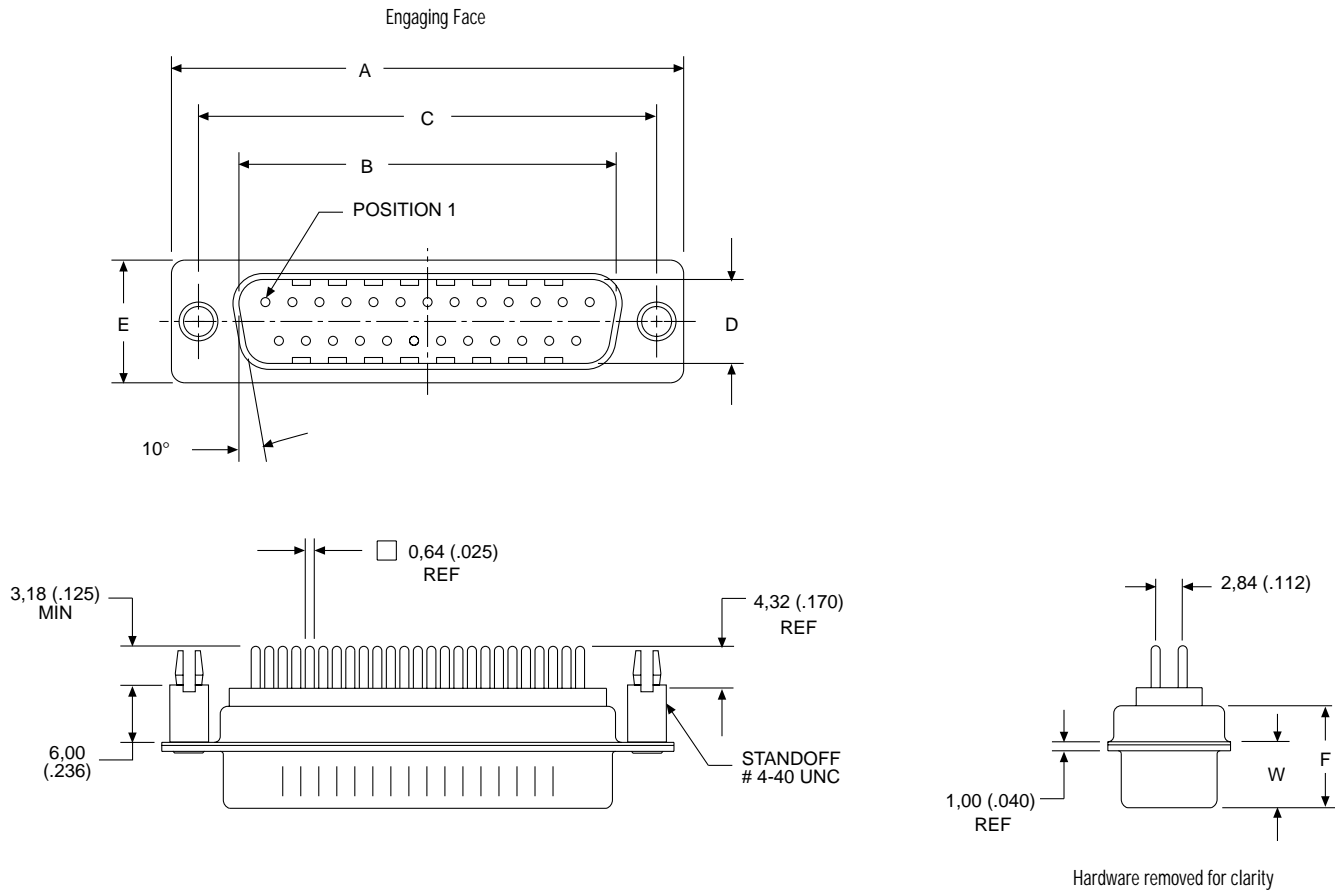
Shell Size	Layout	Through Hole	Standoff With Boardlock
DE	9	ZDE9P-OL2	ZDEE9P-OL2-146
DA	15	ZDA15P-OL2	ZDAE15P-OL2-146
DB	25	ZDB25P-OL2	ZDBE25P-OL2-146
DC	37	ZDC37P-OL2	ZDCE37P-OL2-146
DD	50	ZDD50P-OL2	ZDDE50P-OL2-146

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 274.
 For panel cutouts, see page 221.
 For hardware views (Standard), see page 226.

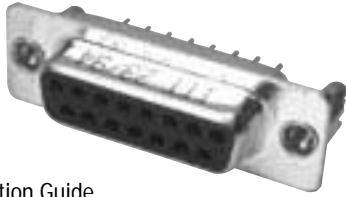


Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,368 (.0145)	W ±0,41 (.016)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)

Straight Solder Termination (Stamped)

Receptacle



Part Numbers

Shell Size	Layout	Through Hole	Standoff With Boardlock
DE	9	ZDE9S-OL2	ZDEE9S-OL2-146
DA	15	ZDA15S-OL2	ZDAE15S-OL2-146
DB	25	ZDB25S-OL2	ZDBE25S-OL2-146
DC	37	ZDC37S-OL2	ZDCE37S-OL2-146
DD	50	ZDD50S-OL2	ZDEE50S-OL2-146

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

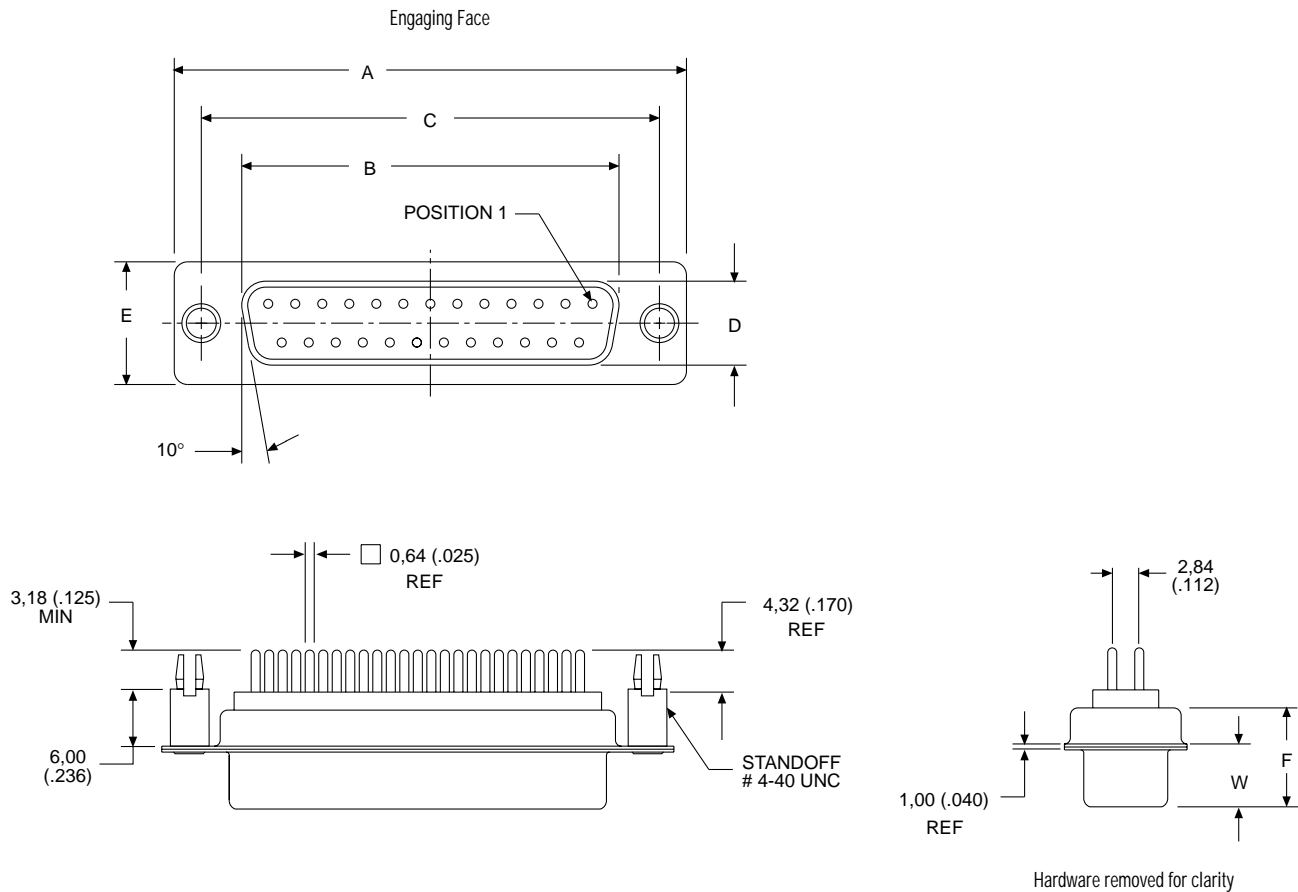
Reader's Resource

For contact cavity arrangements, see page 224.

For P.C. hole patterns, see page 274.

For panel cutouts, see page 221.

For hardware views (Standard), see page 226.

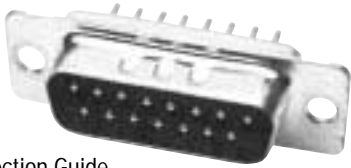


Dimensions

Shell Size	A	B	C	D	E	F	W
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,38 (.015)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)

Straight Solder Termination (Machined) — European PC Tails

Plug



Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

Reader's Resource

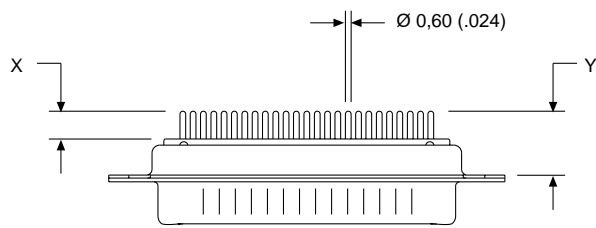
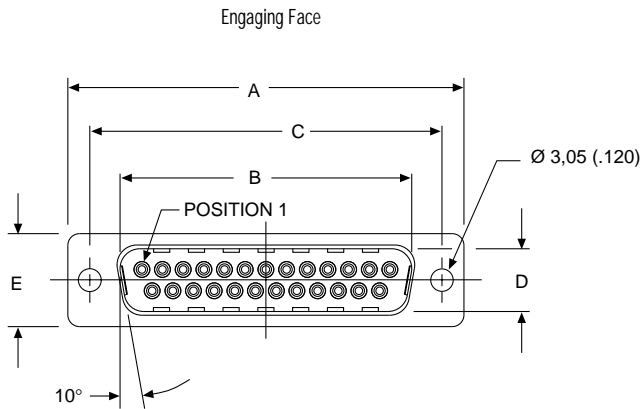
For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 274.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.

Part Numbers

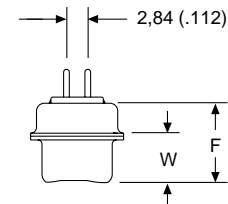
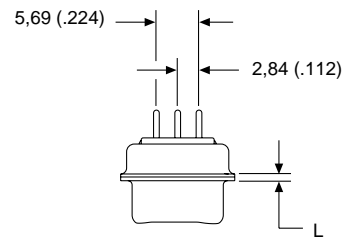
Shell Size	Layout	Through Hole	Standoff #4-40 UNC With Pushfit/Boardlock	Standoff M3 With Pushfit/Boardlock
DE	9	DE9P-OL2-K87	DEE9P-OL2-K87-146	DEX9P-OL2-K87-146
DA	15	DA15P-OL2-K87	DAE15P-OL2-K87-146	DAX15P-OL2-K87-146
DB	25	DB25P-OL2-K87	DBE25P-OL2-K87-146	DBX25P-OL2-K87-146
DC	37	DC37P-OL2-K87	DCE37P-OL2-K87-146	DCX37P-OL2-K87-146
DD	50	DD50P-OL2-K87	DDE50P-OL2-K87-146	DDX50P-OL2-K87-146

Note: For performance class 2 add -A191. Example DA15P-OL2-A191-K87.

PC Tail Modifier	X ±0,30 (.012)	Y ±0,30 (.012)
OL2	5,20 (.205)	10,20 (.401)
OL4	6,75 (.266)	11,80 (.465)



DD Configuration

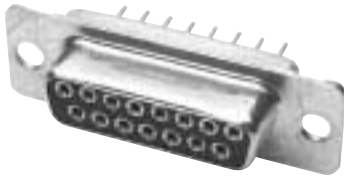


Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,368 (.0145)	W ±0,41 (.016)	L ±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)

Straight Solder Termination (Machined) — European PC Tails

Receptacle



Part Numbers

Shell Size	Layout	Through Hole	Standoff #4-40 UNC With Pushfit/Boardlock	Standoff M3 With Pushfit/Boardlock
DE	9	DE9S-OL2-A197	DEE9S-OL2-A197-146	DEX9S-OL2-A197-146
DA	15	DA15S-OL2-A197	DAE15S-OL2-A197-146	DAX15S-OL2-A197-146
DB	25	DB25S-OL2-A197	DBE25S-OL2-A197-146	DBX25S-OL2-A197-146
DC	37	DC37S-OL2-A197	DCE37S-OL2-A197-146	DCX37S-OL2-A197-146
DD	50	DD50S-OL2-A197	DDE50S-OL2-A197-146	DDX50S-OL2-A197-146

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

Note: For performance class 2 add -A191. Example DA15S-OL2-A191-A197

Reader's Resource

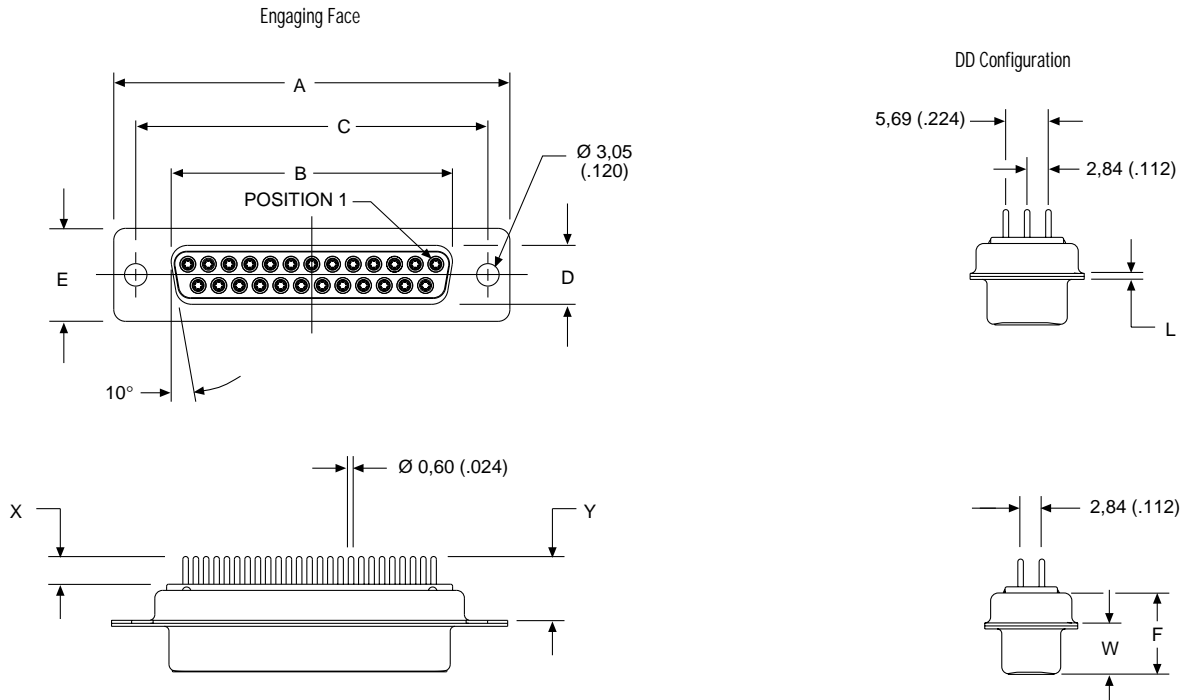
For contact cavity arrangements, see page 224.

For P.C. hole patterns, see page 274.

For panel cutouts, see page 221.

For hardware views (European), see page 227.

PC Tail Modifier	X ±0,30 (.012)	Y ±0,30 (.012)
OL2	5,20 (.205)	10,20 (.401)
OL4	6,75 (.266)	11,80 (.465)

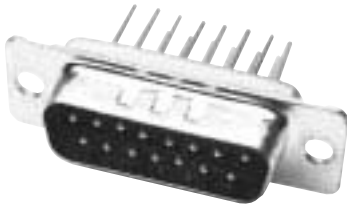


Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,38 (.015)	L ±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

Wrap Post Termination

Plug



Part Numbers

Shell Size	Layout	Through Hole
DE	9	DE9P-F179A-K87
DA	15	DA15P-F179A-K87
DB	25	DB25P-F179A-K87
DC	37	DC37P-F179A-K87
DD	50	DD50P-F179A-K87

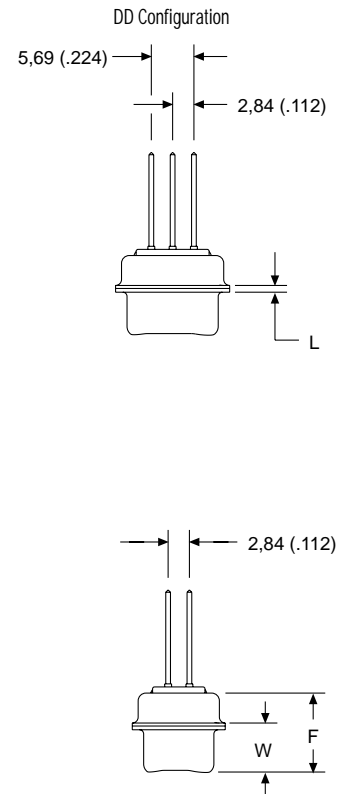
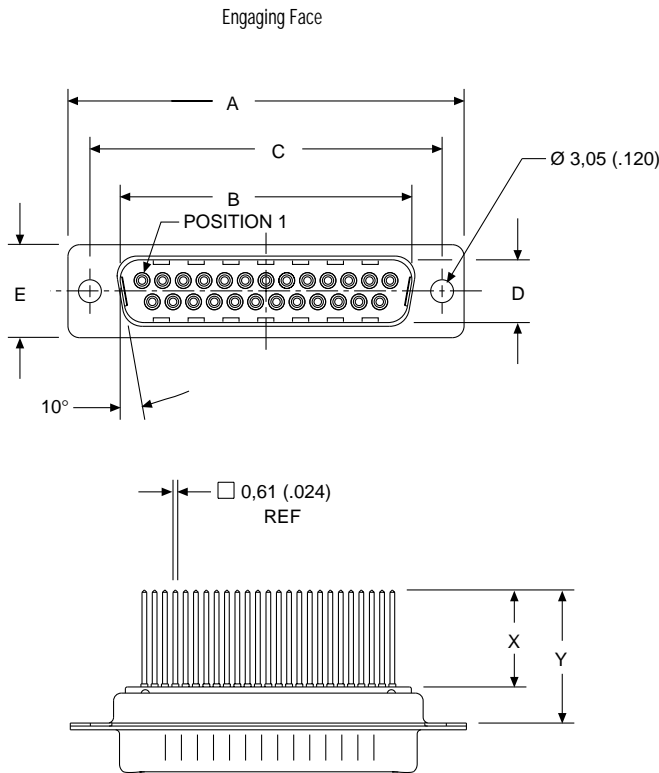
Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

Modification Code	Number of Wraps	X max.	Y ±0,89 (.035)
F179	2	10,21 (.402)	15,20 (.598)
F179A	3	13,61 (.536)	18,60 (.732)

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 274.
 For panel cutouts, see page 221.
 For hardware views (Standard), see page 226.

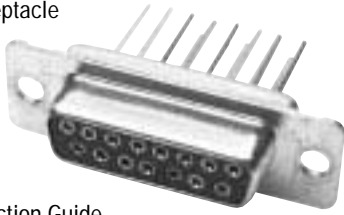


Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,368 (.0145)	W ±0,41 (.016)	L ±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,64 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,64 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,64 (.269)	0,99 (.039)

Wrap Post Termination

Receptacle



Part Numbers

Shell Size	Layout	Through Hole
DE	9	DE9S-F179A-A197
DA	15	DA15S-F179A-A197
DB	25	DB25S-F179A-A197
DC	37	DC37S-F179A-A197
DD	50	DD50S-F179A-A197

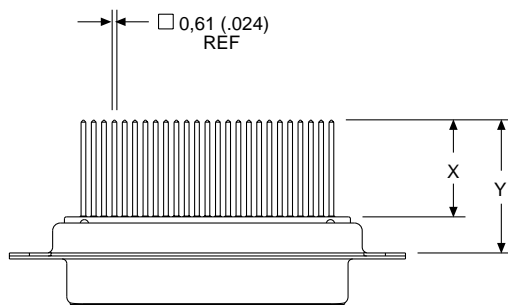
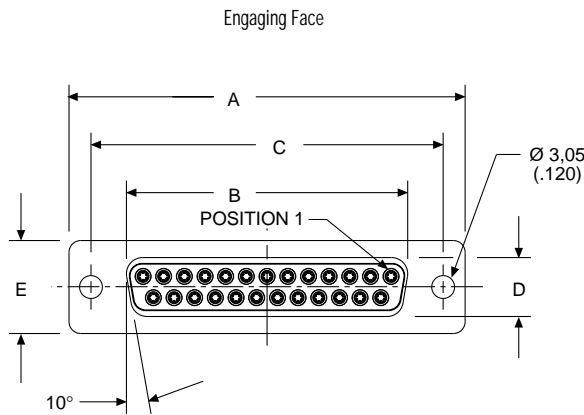
Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 2-3.

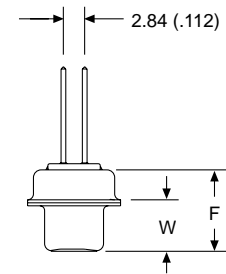
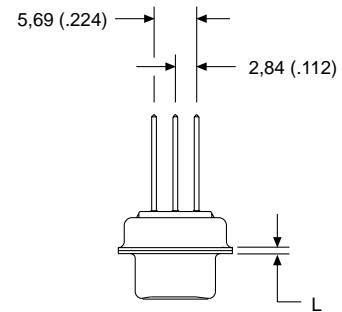
Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 274.
 For panel cutouts, see page 221.
 For hardware views (Standard), see page 226.

Modification Code	Number of Wraps	X max.	Y ±0,89 (.035)
F179	2	10,21 (.402)	15,20 (.598)
F179A	3	13,61 (.536)	18,60 (.732)



DD Configuration



Dimensions

Shell Size	A ±0,13 (.005)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,38 (.015)	L ±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

D*M — 90° Solder Termination (Machined) — Standard Footprint .318[◆] or .283 inch^{◆◆}

See pages 16-17.

D*M 90° PCB connectors, equivalent to MIL-C-24308 qualified versions (except for finishes), for use with printed circuit boards in demanding applications. Additional contact lengths, hardware and finish options available; consult factory for details.

Product Features

- 7.5 A current capacity
- Machined contacts
- Two contact finishes
- Metal bracket with threaded insert standard
- Optional screw locks and boardlocks
- UL file number E8572
- Dimensionally compatible with Combo D®

ZED* — 90° Solder Termination (Stamped) — Standard Footprint .318 inch[◆]

See pages 18-19.

ZED* 90° connectors are available for applications where price is the primary driver. They are available with integrated plastic brackets with Standard footprints.

Product Features

- Stamped contacts with 5 A current capacity
- Economical
- Plastic bracket with integrated boardlocks and grounding strap
- Optional screw locks

D* — 90° Solder Termination (Machined) — European Footprint 10,2[◆] or 9,4 mm^{◆◆}

See pages 20-27.

D* 90° connectors are available for high performance uses according to DIN 41652. Available with European footprint 1AON contacts, plastic and metal brackets, #4-40 or M3 threads and stamped pushfits/boardlocks. Contact finish available in 2 performance classes.

Product Features

- High performance commercial class connectors
- Two contact performance classes
- Optional metal and plastic brackets, threaded standoffs, clinch nuts, and stamped pushfits/boardlocks
- Tin plated contact PC tails (pin & socket)

ZD* — 90° Solder Termination (Stamped) — European Footprint 10,2 mm[◆]

See pages 28-29.

ZD* 90° connectors are available for applications where price is the primary driver. They are available with integrated plastic brackets with European footprints.

Product Features

- Stamped contacts with 5 A current capacity
- Economical
- Plastic bracket with integrated boardlocks and grounding strap
- Optional screw locks

- ◆ Connector footprint measured from the front shell.
- ◆◆ Connector footprint measured from the rear shell.

Specifications

Temperature Rating	–55°C to 125°C
Current Rating	7.5 A
Contact Resistance	55 millivolt max. at 7.5 A test current
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None (Color: dark green)
Pin Contact	Copper Alloy	Gold over Nickel
Socket Contact	Copper Alloy	Gold over Nickel in mating area, Tin on balance
Hardware (except Boardlocks)	Steel	Tin
Boardlocks	Copper Alloy	Tin

Specifications

Temperature Rating	–55°C to 105°C
Current Rating	5 A
Contact Resistance	15 mΩ
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None
Contacts	Copper Alloy	Gold over Nickel in mating area, Tin on balance

Specifications

Temperature Rating	–55°C to +125°C
Current Rating	5 A
Contact Resistance	10 mΩ
Dielectric Withstanding Voltage	1250 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None (Color: dark green)
Contacts	Copper Alloy	Gold over Nickel in mating area, Tin on balance
Hardware	Steel or Plastic	Tin or None
Boardlocks	Copper Alloy	Tin

Specifications

Temperature Rating	–55°C to 105°C
Current Rating	5 A
Contact Resistance	15 mΩ
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None
Contacts	Copper Alloy	Gold over Nickel in mating area, Tin on balance

90° Solder Termination (Machined) — Standard Footprint .318♦ or .283 inch♦♦

Plug



Part Numbers

Shell Size	Layout	Bracket	Bracket & Boardlock	Bracket & Screw Lock #4-40 UNC	Bracket, Boardlock & Screw Lock #4-40 UNC
DE	9	DEMP9PJ87	DEMCP9PJ87	DEMD9PJ87	DEMG9PJ87
DA	15	DAMP15PJ87	DAMC15PJ87	DAMD15PJ87	DAMG15PJ87
DB	25	DBMP25PJ87	DBMC25PJ87	DBMD25PJ87	DBMG25PJ87
DC	37	DCMP37PJ87	DCMC37PJ87	DCMD37PJ87	DCMG37PJ87
DD	50	DDMP50PJ87	DDMC50PJ87	DDMD50PJ87	DDMG50PJ87

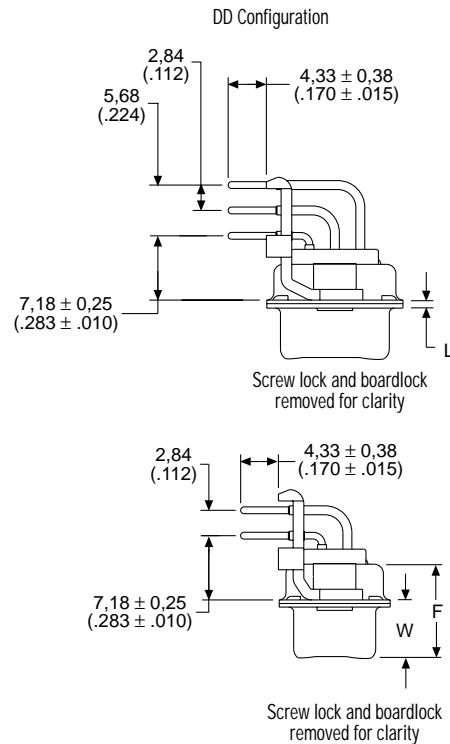
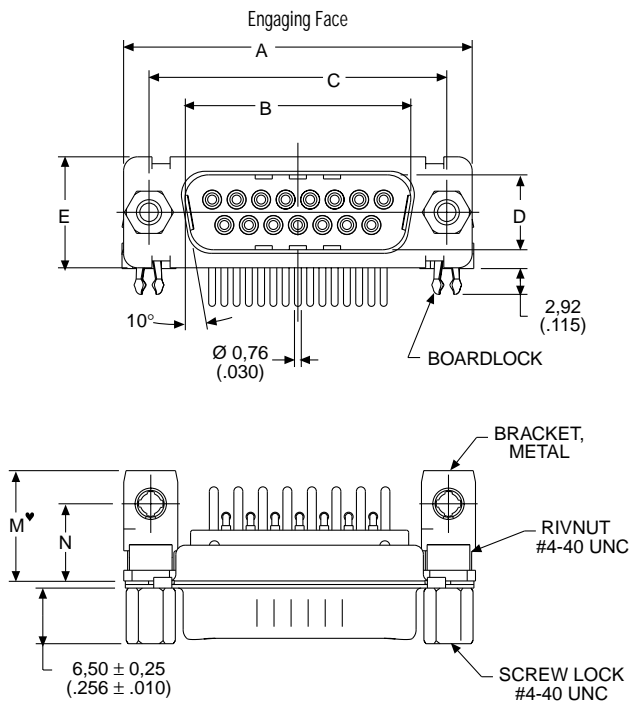
Note: For contacts with 30 microinches gold substitute K127 for K87. Example: DAMG15PJ87

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

- For contact cavity arrangements, see page 224.
- For P.C. hole patterns, see page 272.
- For panel cutouts, see page 221.
- For hardware views (Standard), see page 226.
- For alternate bracket configuration (when connectors are supplied without boardlocks), see page 226.



Note: ♥ Dimension varies with alternate bracket configuration. See Reader's Resource page 226.

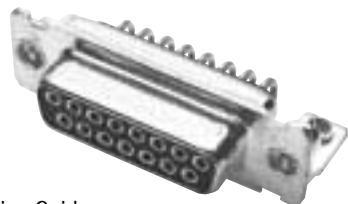
Dimensions

Shell Size	A	B	C	D	E	F	W	W	L	M	N
DE	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,368 (.0145)	±0,41 (.016)	±0,25 (.010)	±0,25 (.010)	±0,25 (.010)
DA	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)	12,34 (.486)	8,64 (.340)
DB	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)	12,34 (.486)	8,64 (.340)
DC	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)	12,34 (.486)	8,64 (.340)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)	12,34 (.486)	8,64 (.340)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)	13,74 (.541)	10,06 (.396)

- ♥ Connector footprint measured from the front shell.
- ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) — Standard Footprint $.318\blacklozenge$ or $.283\blacklozenge\blacklozenge$

Receptacle



Part Numbers

Shell Size	Layout	Bracket	Bracket & Boardlock	Bracket & Screw Lock #4-40 UNC	Bracket, Boardlock & Screw Lock #4-40 UNC
DE	9	DEMP9SJA197	DEMC9SJA197	DEMD9SJA197	DEMG9SJA197
DA	15	DAMP15SJA197	DAMC15SJA197	DAMD15SJA197	DAMG15SJA197
DB	25	DBMP25SJA197	DBMC25SJA197	DBMD25SJA197	DBMG25SJA197
DC	37	DCMP37SJA197	DCMC37SJA197	DCMD37SJA197	DCMG37SJA197
DD	50	DDMP50SJA197	DDMC50SJA197	DDMD50SJA197	DDMG50SJA197

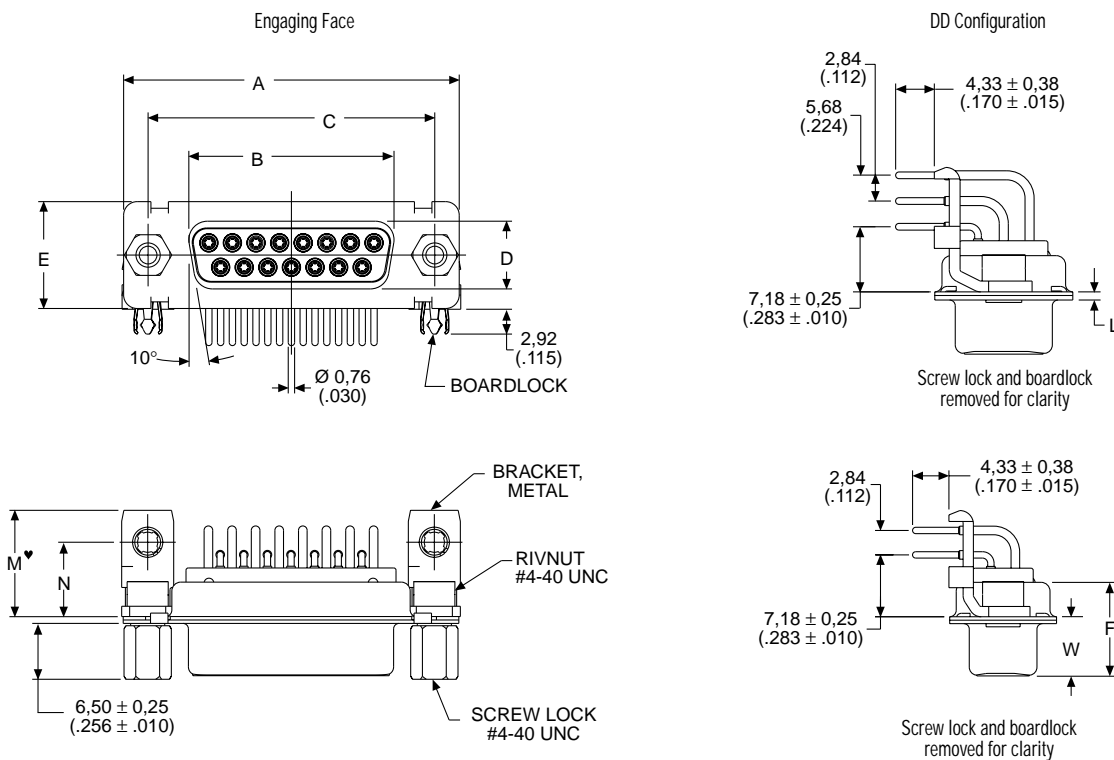
Note: For contacts with 30 microinches gold substitute K126 for A197. Example: DAMG15SJ126

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 272.
 For panel cutouts, see page 221.
 For hardware views (Standard), see page 226.
 For alternate bracket configuration (when connectors are supplied without boardlocks), see page 226.



Note: ♥ Dimension varies with alternate bracket configuration. See Reader's Resource page 226.

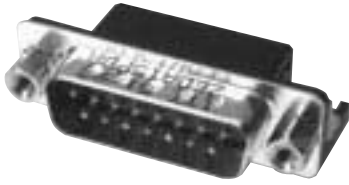
Dimensions

Shell Size	A	B	C	D	E	F	W	L	M	N
	$\pm 0,38 (.015)$	$\pm 0,13 (.005)$	$\pm 0,13 (.005)$	$\pm 0,13 (.005)$	$\pm 0,38 (.015)$	$\pm 0,25 (.010)$	$\pm 0,38 (.015)$	$\pm 0,25 (.010)$	$\pm 0,25 (.010)$	$\pm 0,25 (.010)$
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)	12,34 (.486)	8,64 (.340)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)	12,34 (.486)	8,64 (.340)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)	12,34 (.486)	8,64 (.340)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)	12,34 (.486)	8,64 (.340)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)	13,74 (.541)	10,06 (.396)

- ♥ Connector footprint measured from the front shell.
- ◆◆ Connector footprint measured from the rear shell.

90° Solder Termination (Stamped) — Standard Footprint .318 inch

Plug



Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

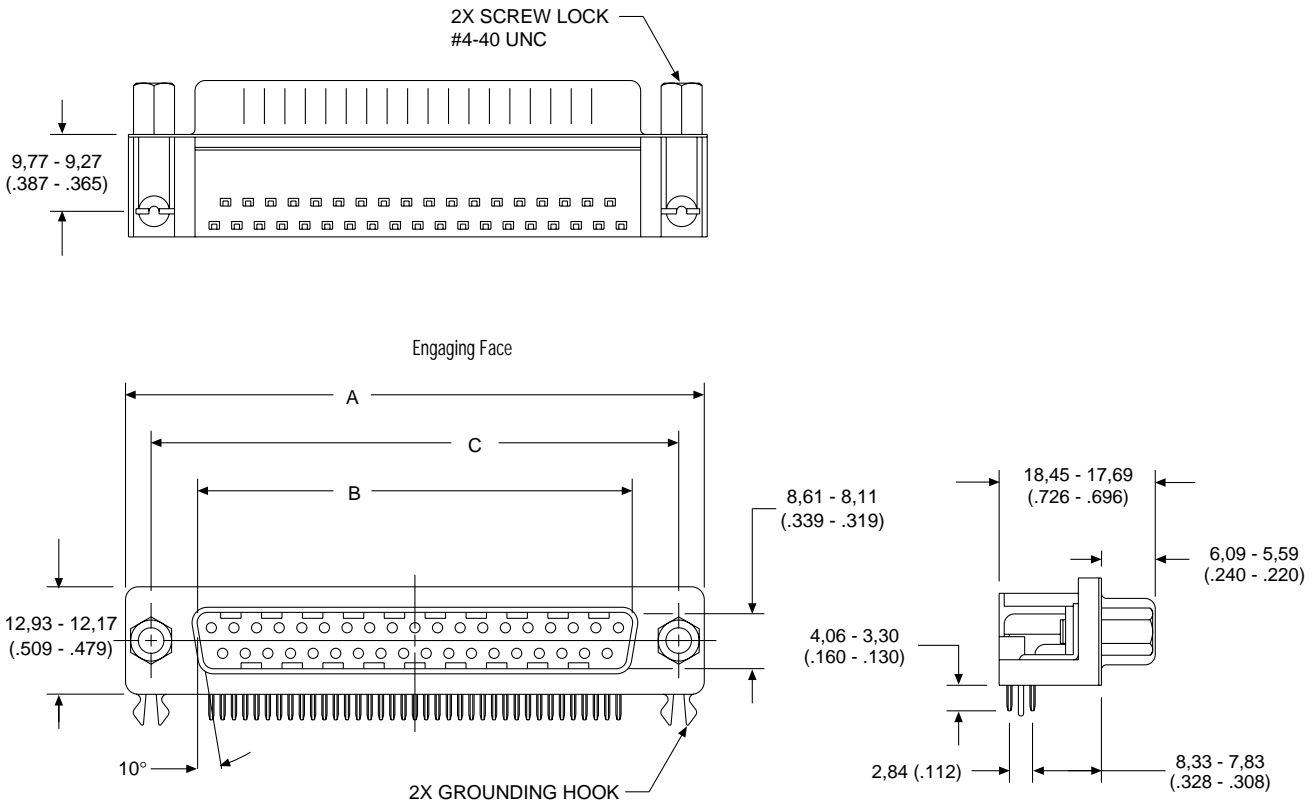
Reader's Resource

- For contact cavity arrangements, see page 224.
- For P.C. hole patterns, see page 272.
- For panel cutouts, see page 221.
- For hardware views (Standard), see page 226.

Part Numbers

Shell Size	Layout	Plastic Bracket, Integrated Grounding Strap, Boardlock, Threaded Insert #4-40 UNC	Plastic Bracket, Integrated Grounding Strap, Boardlock, Screw Lock #4-40 UNC
DE	9	ZEDE9PBA	ZEDE9PBA
DA	15	ZEDAL15PBA	ZEDA15PBA
DB	25	ZEDBL25PBA	ZEDB25PBA
DC	37	ZEDCL37PBA	ZEDC37PBA

Note: For contacts with 30 microinches of gold add -30. Example: ZEDE9PBA-30

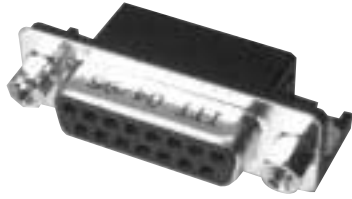


Dimensions

Shell Size	A	B	C
	±0,38 (.015)	±0,25 (.010)	±0,25 (.010)
DE	30,89 (1.216)	16,92 (.666)	24,99 (.984)
DA	39,09 (1.539)	25,25 (.994)	33,32 (1.312)
DB	53,09 (2.090)	38,96 (1.534)	47,04 (1.852)
DC	69,40 (2.732)	55,42 (2.182)	63,50 (2.500)

90° Solder Termination (Stamped) — Standard Footprint .318 inch

Receptacle



Part Numbers

Shell Size	Layout	Plastic Bracket, Integrated Grounding Strap, Boardlock, Threaded Insert #4-40 UNC	Plastic Bracket, Integrated Grounding Strap, Boardlock, Screw Lock #4-40 UNC
DE	9	ZEDEL9SBA	ZEDE9SBA
DA	15	ZEDAL15SBA	ZEDA15SBA
DB	25	ZEDBL25SBA	ZEDB25SBA
DC	37	ZEDCL37SBA	ZEDC37SBA

Note: For contacts with 30 microinches gold add -30. Example: ZEDEL9SBA-30

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

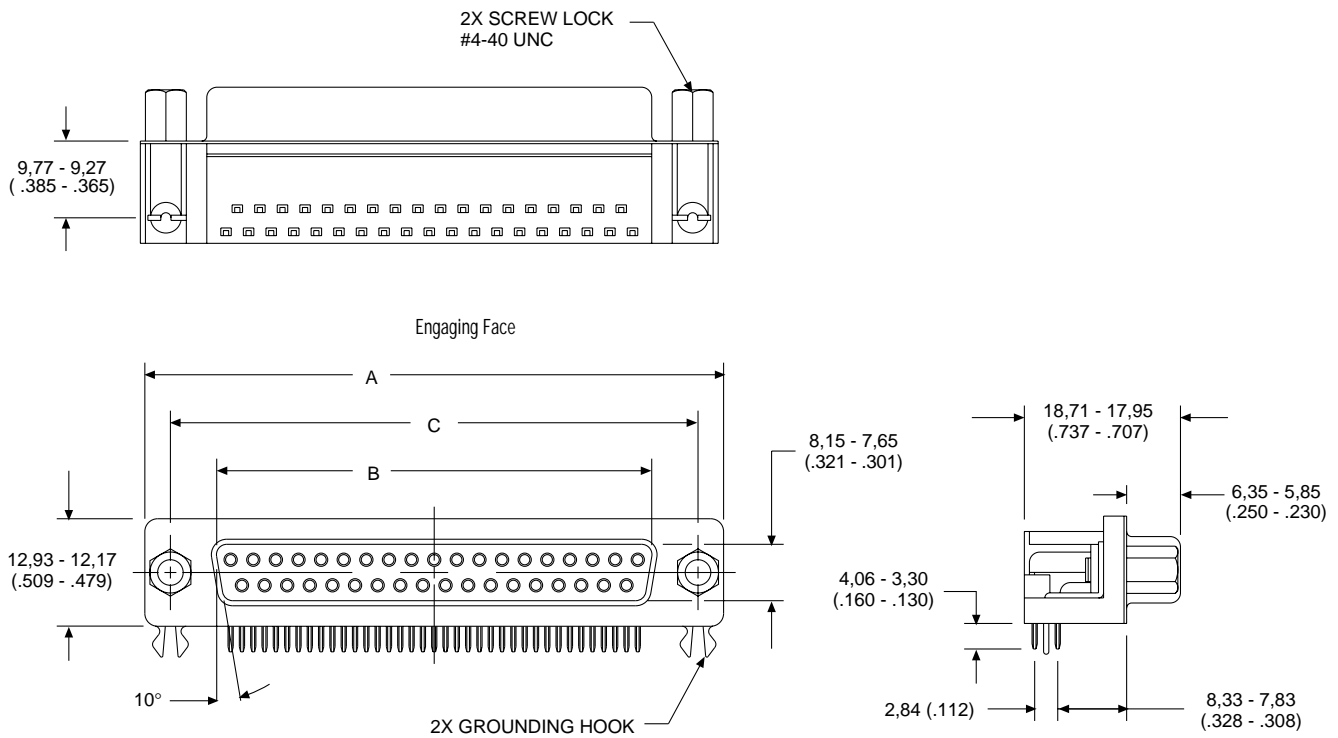
Reader's Resource

For contact cavity arrangements, see page 224.

For P.C. hole patterns, see page 272.

For panel cutouts, see page 221.

For hardware views (Standard), see page 226.

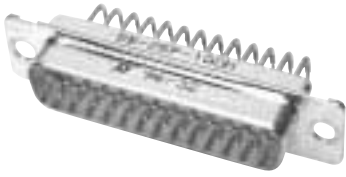


Dimensions

Shell Size	A ±0,38 (.015)	B ±0,25 (.010)	C ±0,25 (.010)
DE	30,89 (1.216)	16,28 (.641)	24,99 (.984)
DA	39,09 (1.539)	24,66 (.971)	33,32 (1.312)
DB	53,09 (2.090)	38,38 (1.511)	47,04 (1.852)
DC	69,40 (2.732)	54,84 (2.159)	63,50 (2.500)

90° Solder Termination (Machined) — European Footprint 10,2♦ or 9,4 mm♦♦

Plug



Part Numbers

Shell Size	Layout	Through Hole
DE	9	DE9P-1A0N-K87
DA	15	DA15P-1A0N-K87
DB	25	DB25P-1A0N-K87
DC	37	DC37P-1A0N-K87
DD	50	DD50P-1A0N-K87

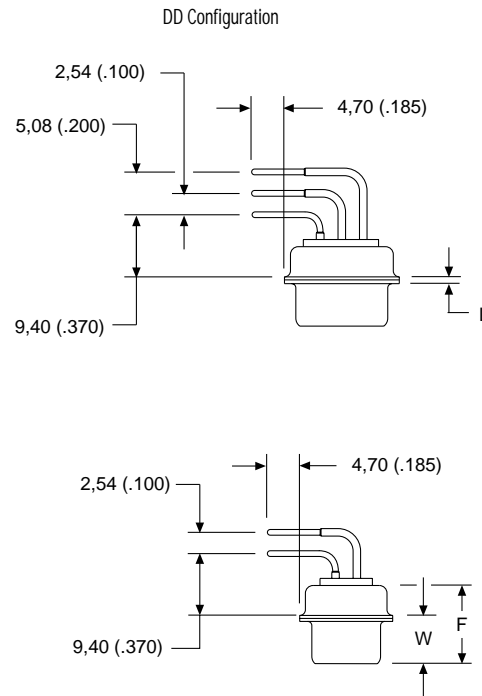
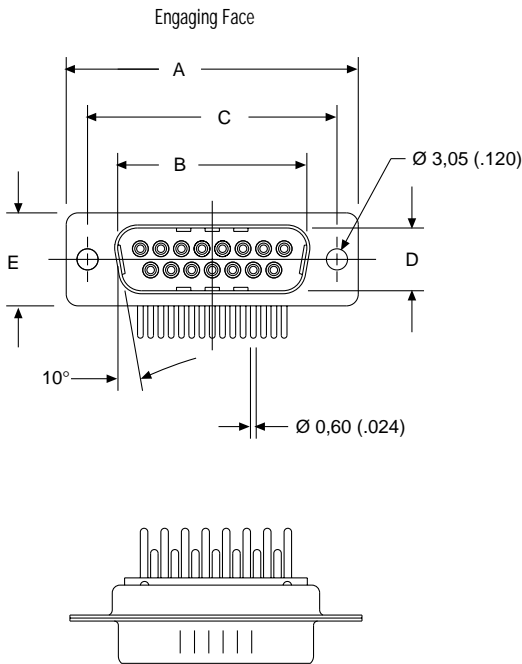
Note: For performance class 2 add -A191. Example: DE9P-1A0N-A191-K87

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 273.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.



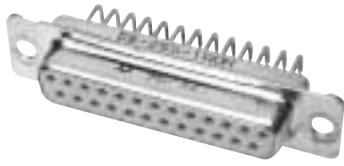
Dimensions

Shell Size	A	B	C	D	E	F	W	W	L
	$\pm 0,38 (.015)$	$\pm 0,13 (.005)$	$\pm 0,13 (.005)$	$\pm 0,13 (.005)$	$\pm 0,38 (.015)$	$\pm 0,25 (.010)$	$\pm 0,368 (.0145)$	$\pm 0,41 (.016)$	$\pm 0,25 (.010)$
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)

- ♦ Connector footprint measured from the front shell.
- ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) — European Footprint 10,2♦ or 9,4 mm♦♦

Receptacle



Part Numbers

Shell Size	Layout	Through Hole
DE	9	DE9S-1AON-A197
DA	15	DA15S-1AON-A197
DB	25	DB25S-1AON-A197
DC	37	DC37S-1AON-A197
DD	50	DD50S-1AON-A197

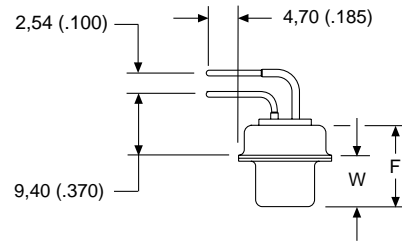
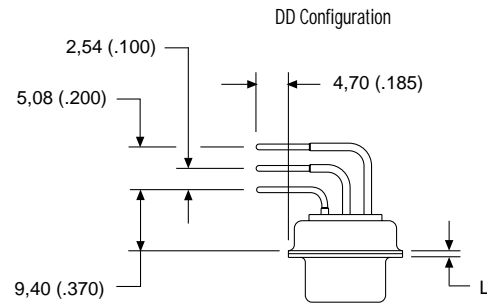
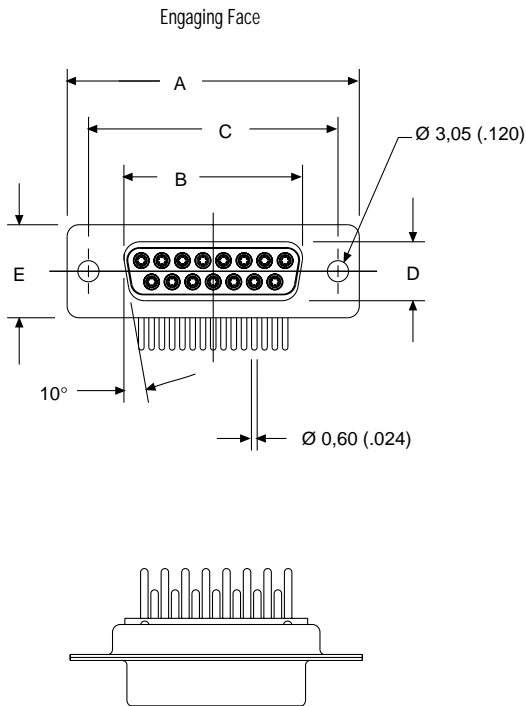
Note: For performance class 2 add -A191. Example: DE9S-1AON-A191-A197

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 273.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.



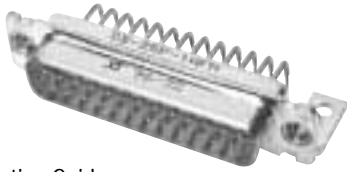
Dimensions

Shell Size	A	B	C	D	E	F	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,38 (.015)	±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

- ♦ Connector footprint measured from the front shell.
- ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) with Metal Bracket — European Footprint 10,2♦ or 9,4♦♦ mm

Plug



Part Numbers

Shell Size	Layout	Bushing with Through Hole	Captive Nut #4-40 UNC	Captive Nut M3	Post #4-40 UNC
DE	9	DE9P-1AFN-K87	DE9P-1A7N-K87	DE9P-1A9N-K87	DE9P-1A8N-K87
DA	15	DA15P-1AFN-K87	DA15P-1A7N-K87	DA15P-1A9N-K87	DA15P-1A8N-K87
DB	25	DB25P-1AFN-K87	DB25P-1A7N-K87	DB25P-1A9N-K87	DB25P-1A8N-K87
DC	37	DC37P-1AFN-K87	DC37P-1A7N-K87	DC37P-1A9N-K87	DC37P-1A8N-K87
DD	50	DD50P-1AFN-K87	DD50P-1A7N-K87	DD50P-1A9N-K87	DD50P-1A8N-K87

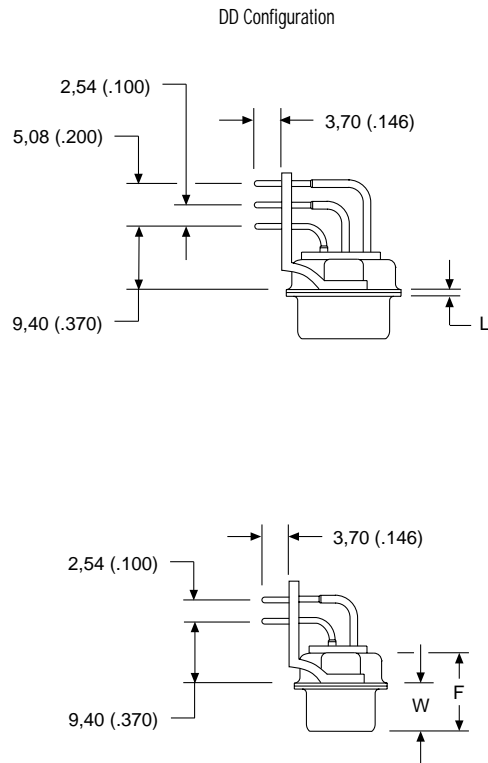
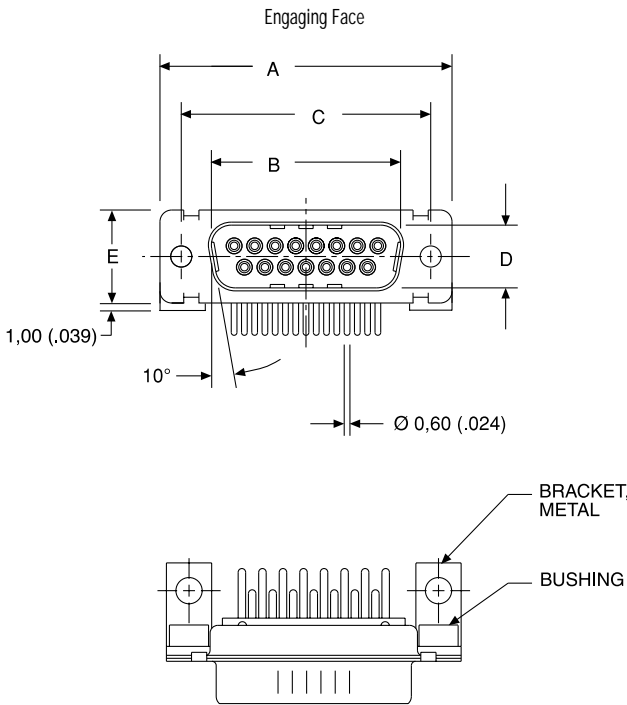
Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Notes: For pushfit/boardlock option add -146. Example: DE9P-1AFN-K87-146
For performance class 2 add -A191. Example: DE9P-1AFN-A191-K87

Reader's Resource

For contact cavity arrangements, see page 224.
For P.C. hole patterns, see page 273.
For panel cutouts, see page 221.
For hardware views (European), see page 227.



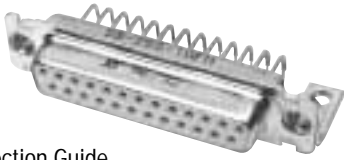
Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,368 (.0145)	W ±0,41 (.016)	L ±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)

- ♦ Connector footprint measured from the front shell.
- ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) with Metal Bracket — European Footprint 10,2♦ or 9,4♦♦ mm

Receptacle



Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

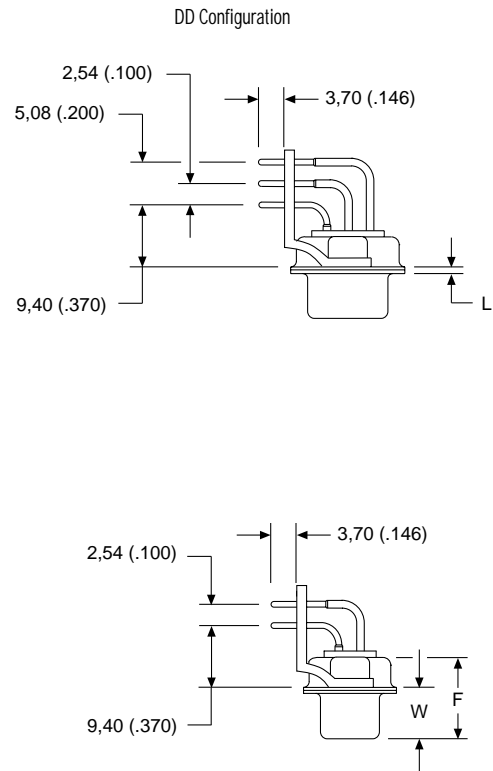
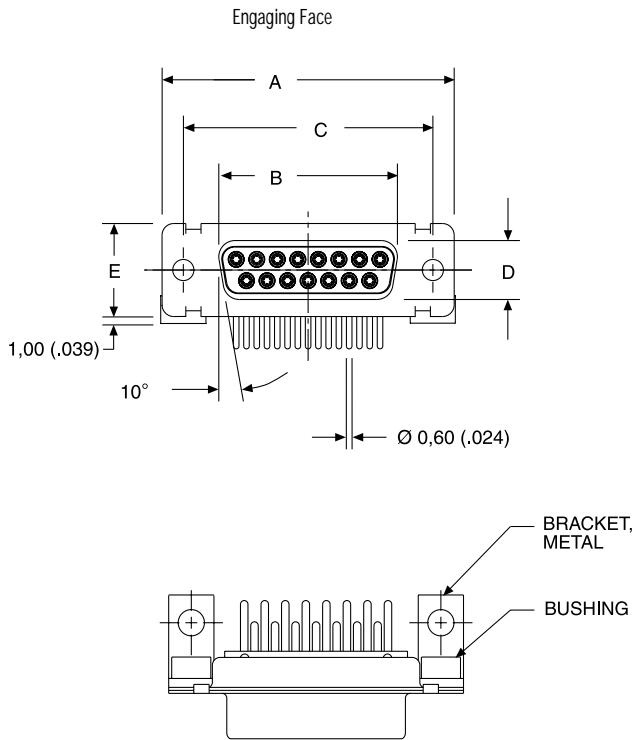
Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 273.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.

Part Numbers

Shell Size	Layout	Bushing with Through Hole	Captive Nut #4-40 UNC	Captive Nut M3	Post #4-40 UNC
DE	9	DE9S-1AFN-A197	DE9S-1A7N-A197	DE9S-1A9N-A197	DE9S-1A8N-A197
DA	15	DA15S-1AFN-A197	DA15S-1A7N-A197	DA15S-1A9N-A197	DA15S-1A8N-A197
DB	25	DB25S-1AFN-A197	DB25S-1A7N-A197	DB25S-1A9N-A197	DB25S-1A8N-A197
DC	37	DC37S-1AFN-A197	DC37S-1A7N-A197	DC37S-1A9N-A197	DC37S-1A8N-A197
DD	50	DD50S-1AFN-A197	DD50S-1A7N-A197	DD50S-1A9N-A197	DD50S-1A8N-A197

Notes: For pushfit/boardlock option add -146. Example: DE9S-1AFN-A197-146
 For performance class 2 add -A191. Example: DE9S-1AFN-A191-A197



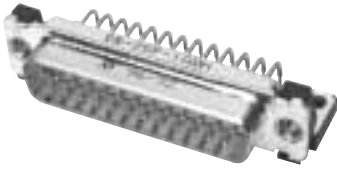
Dimensions

Shell Size	A	B	C	D	E	F	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,38 (.015)	±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

- ♦ Connector footprint measured from the front shell.
- ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) with Plastic Bracket and Grounding Strap — European Footprint 10,2♦ or 9,4 mm♦♦

Plug



Part Numbers

Shell Size	Layout	Through Hole	Captive Nut #4-40 UNC	Captive Nut M3	Post #4-40 UNC
DE	9	DE9P-1ADN-K87	DE9P-1AWN-K87	DE9P-1AVN-K87	DE9P-1AJN-K87
DA	15	DA15P-1ADN-K87	DA15P-1AWN-K87	DA15P-1AVN-K87	DA15P-1AJN-K87
DB	25	DB25P-1ADN-K87	DB25P-1AWN-K87	DB25P-1AVN-K87	DB25P-1AJN-K87
DC	37	DC37P-1ADN-K87	DC37P-1AWN-K87	DC37P-1AVN-K87	DC37P-1AJN-K87
DD	50	DD50P-1ADN-K87	DD50P-1AWN-K87	DD50P-1AVN-K87	DD50P-1AJN-K87

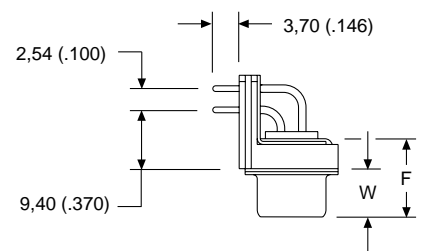
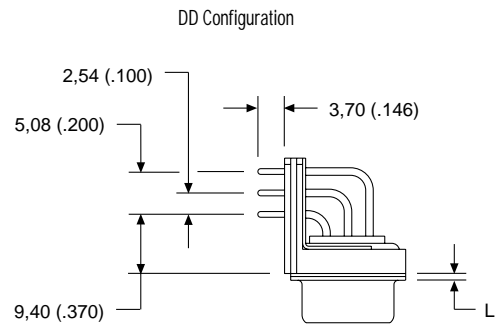
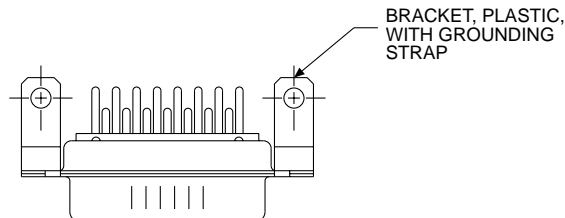
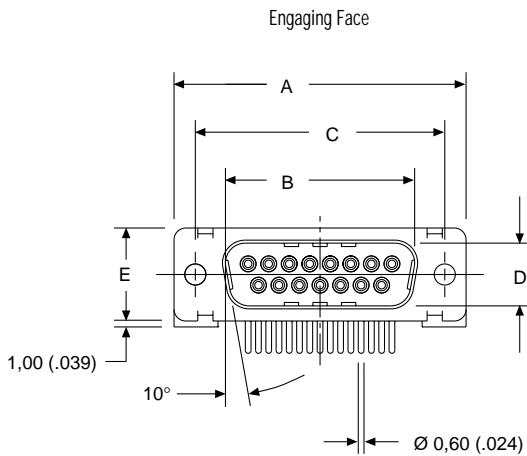
Notes: For pushfit/boardlock option add -146. Example: DE9P-1ADN-K87-146
For performance class 2 add -A191. Example: DE9P-1ADN-A191-K87

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
For P.C. hole patterns, see page 273.
For panel cutouts, see page 221.
For hardware views (European), see page 227.



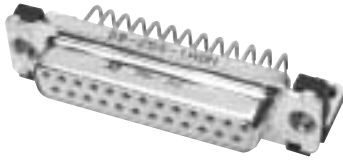
Dimensions

Shell Size	A	B	C	D	E	F	W	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,368 (.0145)	±0,41 (.016)	±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)

♦ Connector footprint measured from the front shell.
♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) with Plastic Bracket and Grounding Strap — European Footprint 10,2♦ or 9,4 mm♦♦

Receptacle



Part Numbers

Shell Size	Layout	Through Hole	Captive Nut #4-40 UNC	Captive Nut M3	Post #4-40 UNC
DE	9	DE9S-1ADN-A197	DE9S-1AWN-A197	DE9S-1AVN-A197	DE9S-1AJN-A197
DA	15	DA15S-1ADN-A197	DA15S-1AWN-A197	DA15S-1AVN-A197	DA15S-1AJN-A197
DB	25	DB25S-1ADN-A197	DB25S-1AWN-A197	DB25S-1AVN-A197	DB25S-1AJN-A197
DC	37	DC37S-1ADN-A197	DC37S-1AWN-A197	DC37S-1AVN-A197	DC37S-1AJN-A197
DD	50	DD50S-1ADN-A197	DD50S-1AWN-A197	DD50S-1AVN-A197	DD50S-1AJN-A197

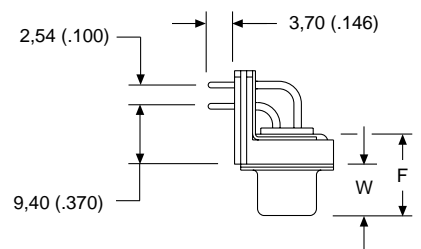
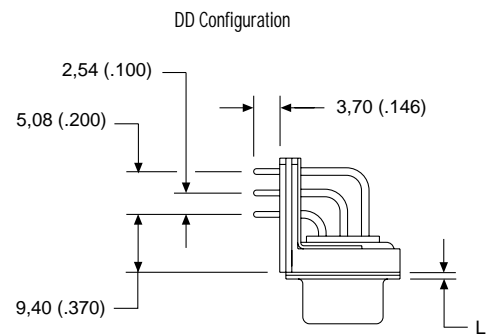
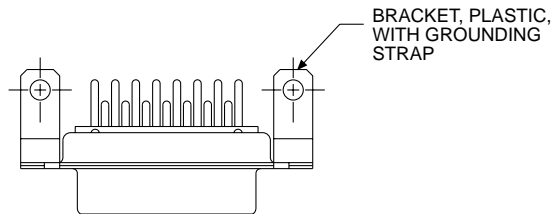
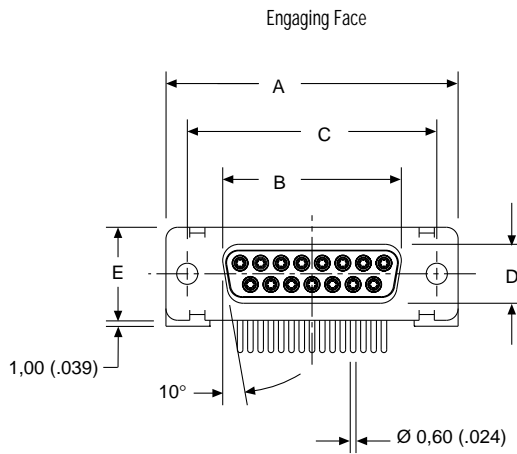
Notes: For pushfit/boardlock option add -146. Example: DE9S-1ADN-A197-146
For performance class 2 add -A191. Example: DE9S-1ADN-A191-A197

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
For P.C. hole patterns, see page 273.
For panel cutouts, see page 221.
For hardware views (European), see page 227.



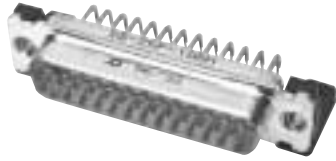
Dimensions

Shell Size	A	B	C	D	E	F	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,38 (.015)	±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

- ♦ Connector footprint measured from the front shell.
- ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) with Plastic Bracket — European Footprint 10,2♦ or 9,4 mm♦♦

Plug



Part Numbers

Shell Size	Layout	Through Hole	Captive Nut #4-40 UNC	Captive Nut M3	Post #4-40 UNC
DE	9	DE9P-1A5N-K87	DE9P-1AUN-K87	DE9P-1ATN-K87	DE9P-1A6N-K87
DA	15	DA15P-1A5N-K87	DA15P-1AUN-K87	DA15P-1ATN-K87	DA15P-1A6N-K87
DB	25	DB25P-1A5N-K87	DB25P-1AUN-K87	DB25P-1ATN-K87	DB25P-1A6N-K87
DC	37	DC37P-1A5N-K87	DC37P-1AUN-K87	DC37P-1ATN-K87	DC37P-1A6N-K87
DD	50	DD50P-1A5N-K87	DD50P-1AUN-K87	DD50P-1ATN-K87	DD50P-1A6N-K87

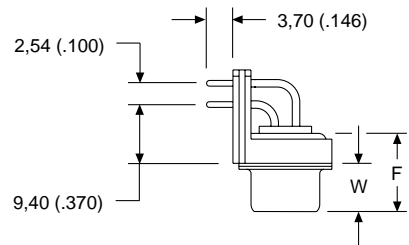
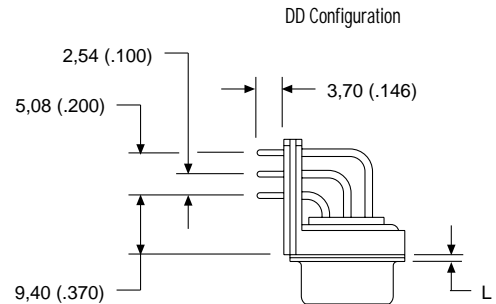
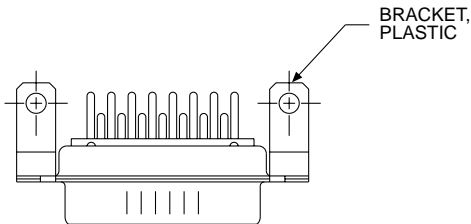
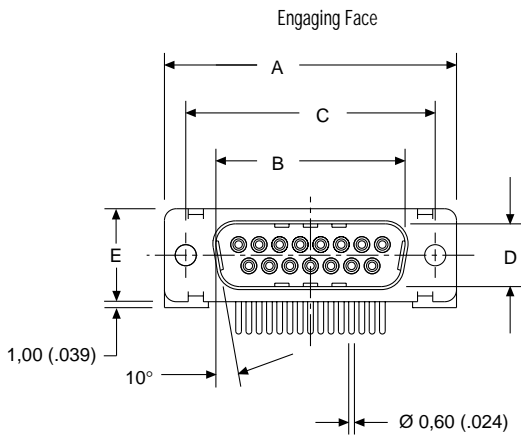
Notes: For pushfit/boardlock option add -146. Example: DE9P-1A5N-K87-146
 For performance class 2 add -A191. Example: DE9P-1A5N-A191-K87

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 273.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.



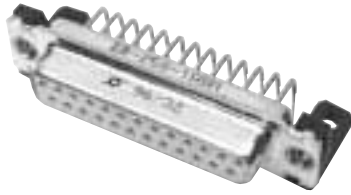
Dimensions

Shell Size	A	B	C	D	E	F	W	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,368 (.145)	±0,41 (.016)	±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)

♦ Connector footprint measured from the front shell.
 ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Machined) with Plastic Bracket — European Footprint 10,2♦ or 9,4 mm♦♦

Receptacle



Part Numbers

Shell Size	Layout	Through Hole	Captive Nut #4-40 UNC	Captive Nut M3	Post #4-40 UNC
DE	9	DE9S-1A5N-A197	DE9S-1AUN-A197	DE9S-1ATN-A197	DE9S-1A6N-A197
DA	15	DA15S-1A5N-A197	DA15S-1AUN-A197	DA15S-1ATN-A197	DA15S-1A6N-A197
DB	25	DB25S-1A5N-A197	DB25S-1AUN-A197	DB25S-1ATN-A197	DB25S-1A6N-A197
DC	37	DC37S-1A5N-A197	DC37S-1AUN-A197	DC37S-1ATN-A197	DC37S-1A6N-A197
DD	50	DD50S-1A5N-A197	DD50S-1AUN-A197	DD50S-1ATN-A197	DD50S-1A6N-A197

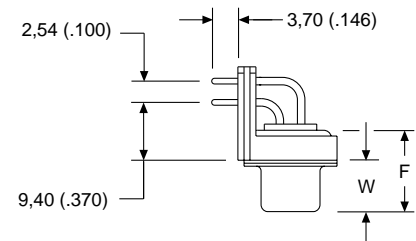
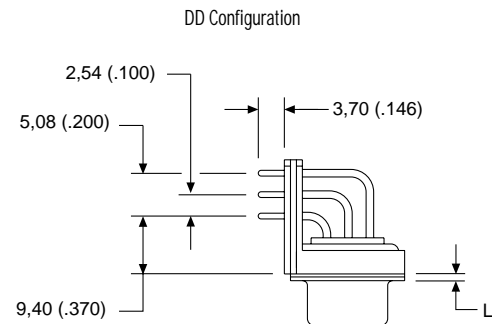
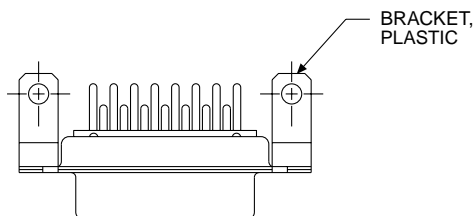
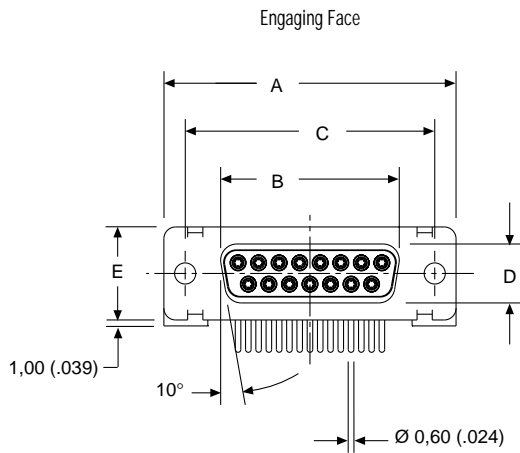
Notes: For push/boardlock option add -146. Example: DE9S-1A5N-A197-146
 For performance class 2 add -A191. Example: DE9S-1A5N-A191-A197

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 273.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.



Dimensions

Shell Size	A	B	C	D	E	F	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,38 (.015)	±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

♦ Connector footprint measured from the front shell.
 ♦♦ Connector footprint measured from the rear shell.

90° Solder Termination (Stamped) — European Footprint 10,2 mm

Plug



Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

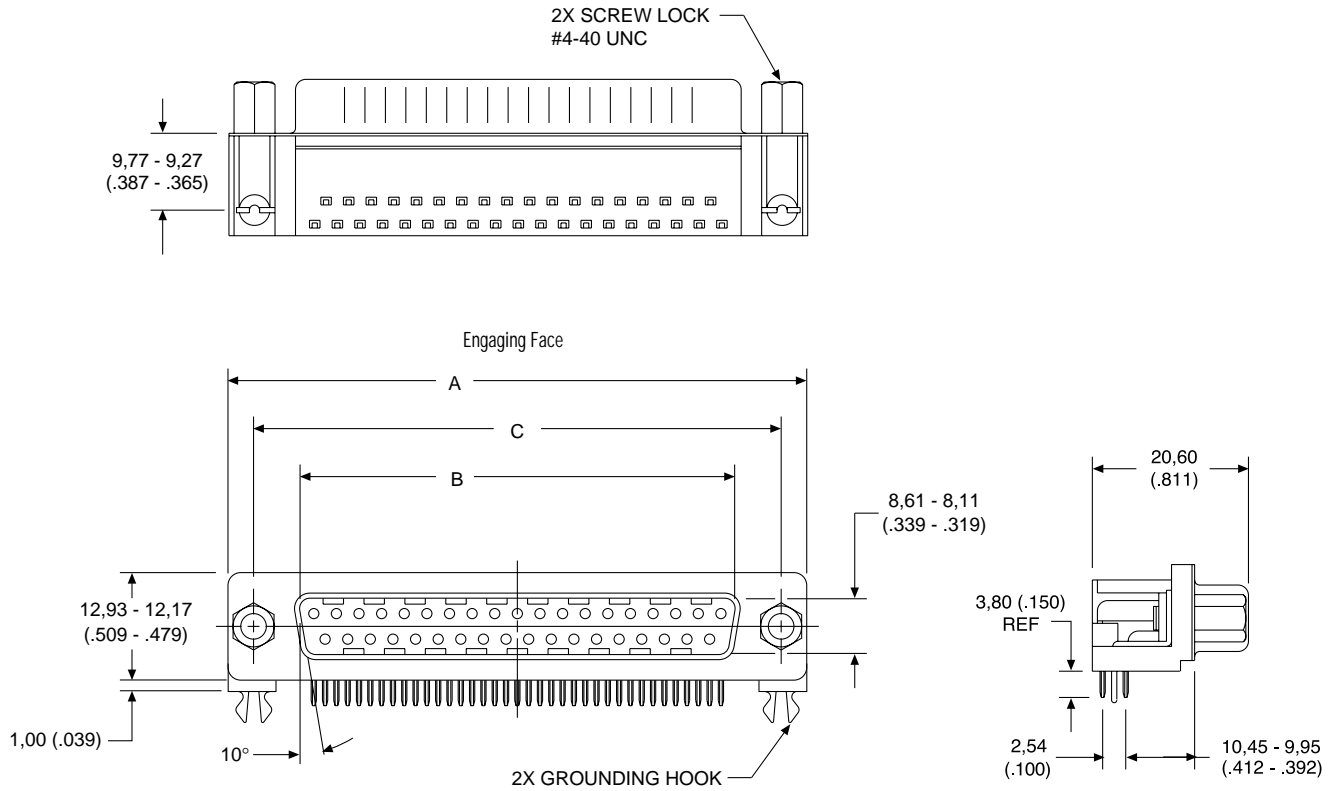
Part Numbers

Shell Size	Layout	Plastic Bracket, Integrated Grounding Strap, Boardlock, Threaded Insert #4-40 UNC	Plastic Bracket, Integrated Grounding Strap, Boardlock, Screw Lock #4-40 UNC
DE	9	ZDEL9P-1AKN-146	ZDE9P-1AKN-146
DA	15	ZDAL15P-1AKN-146	ZDA15P-1AKN-146
DB	25	ZDBL25P-1AKN-146	ZDB25P-1AKN-146
DC	37	ZDCL37P-1AKN-146	ZDC37P-1AKN-146

Note: For contacts with 30 microinches gold add -A191. Example: ZDEL9P-1AKN-A191-146

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 273.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.

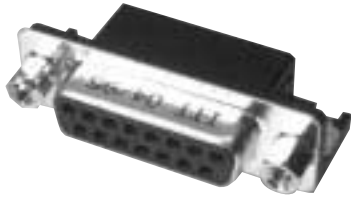


Dimensions

Shell Size	A ±0,38 (.015)	B ±0,25 (.010)	C ±0,13 (.005)
DE	30,89 (1.216)	16,92 (.666)	24,99 (.984)
DA	39,09 (1.539)	25,25 (.994)	33,32 (1.312)
DB	53,09 (2.090)	38,96 (1.534)	47,04 (1.852)
DC	69,40 (2.732)	55,42 (2.182)	63,50 (2.500)

90° Solder Termination (Stamped) — European Footprint 10,2 mm

Receptacle



Part Numbers

Shell Size	Layout	Plastic Bracket, Integrated Grounding Strap, Boardlock, Threaded Insert #4-40 UNC	Plastic Bracket, Integrated Grounding Strap, Boardlock, Screw Lock #4-40 UNC
DE	9	ZDEL9S-1AKN-146	ZDE9S-1AKN-146
DA	15	ZDAL15S-1AKN-146	ZDA15S-1AKN-146
DB	25	ZDBL25S-1AKN-146	ZDB25S-1AKN-146
DC	37	ZDCL37S-1AKN-146	ZDC37S-1AKN-146

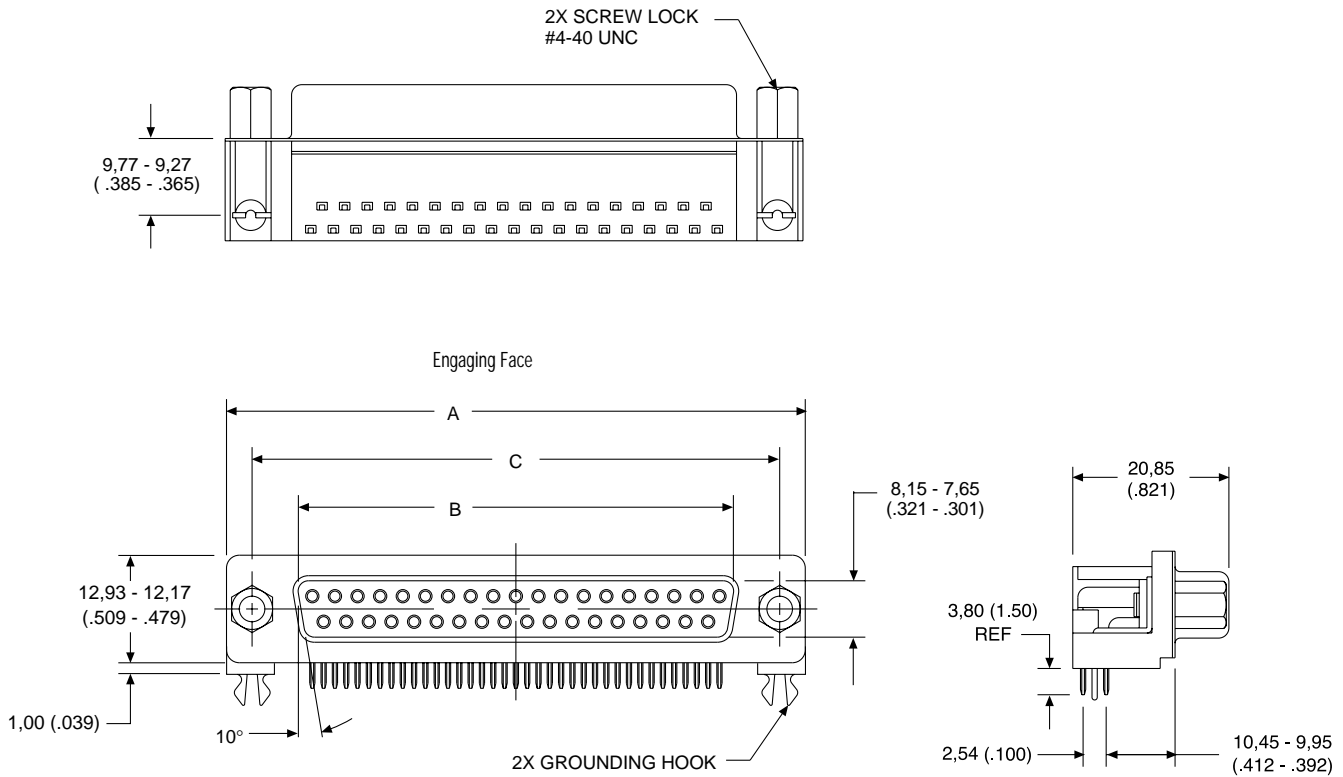
Note: For contacts with -A191 microinches gold add -A191. Example: ZDEL9S-1AKN-A191-146

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 14-15.

Reader's Resource

For contact cavity arrangements, see page 224.
 For P.C. hole patterns, see page 273.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.



Dimensions

Shell Size	A ±0,38 (.015)	B ±0,25 (.010)	C ±0,13 (.005)
DE	30,89 (1.216)	16,33 (.643)	24,99 (.984)
DA	39,09 (1.539)	24,66 (.971)	33,32 (1.312)
DB	53,09 (2.090)	38,38 (1.511)	47,04 (1.852)
DC	69,40 (2.732)	54,84 (2.159)	63,50 (2.500)

D* — Solder Cup Termination (Machined) with Tin Shells

See pages 32-33.

D* solder cup connectors are used for cable or panel mount wiring applications. Solder cup connectors provide maximum flexibility and performance for applications requiring discrete solder terminations and field repair without termination tooling.

Product Features

Machined solder cup termination, 5 A current capacity
 High performance commercial class connectors
 Two contact performance classes
 Optional clinch nuts with #4-40 UNC or M3 threads

ZD* — Solder Cup Termination (Stamped) with Tin Shells

See pages 34-35.

ZD* solder cup connectors are used for cable or panel mount wiring applications. Solder cup connectors provide maximum flexibility and performance for applications requiring discrete solder terminations.

Product Features

Stamped solder cup termination, 5 A current capacity
 Economical

D*A — Crimp Connectors without Contacts

See pages 36-37.

D*A crimp contact connectors are designed for reliable, fast cabling. Available in the industry standard D*A housing, the connectors provide a low-cost, quick cabling alternative compared to soldering.

Product Features

Crimp contacts available in reels of 5,000
 Application tooling:
 – Hand or automatic
 – Stripper crimper

D*W — Discrete Wire IDC

See pages 38-41.

The D*W connector provides insulation displacement connection technology for either solid or stranded wires. With D*W, speed of cabling is increased significantly over solder cup or crimp solutions. Contacts are easily removable and replaceable. Several specialized accessories (including shield cans, ferrules, and plastic boots) are available to provide a complete product solution.

Product Features

Quick harnessing capability with simple hand or semi-automatic tooling
 Accepts 30 AWG to 20 AWG wire; sizes can be mixed
 Shield cans insure reliable shielding continuity

Specifications

Temperature Rating	-55°C to 125°C
Current Rating	5 A
Contact Resistance	10 mΩ
Dielectric Withstanding Voltage	1250 VAC

Materials and Finishes

Description	Material	Finish
Shell/Hardware	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None
Contacts	Copper Alloy	Gold over Nickel

Specifications

Temperature Rating	-55°C to 105°C
Current Rating	5 A
Contact Resistance	15 mΩ
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None
Contacts	Copper Alloy	Gold over Nickel

Specifications

Temperature Rating	-55°C to 105°C
Current Rating	5 A (20 AWG)
Contact Resistance	15 mΩ
Dielectric Withstanding Voltage	500 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell/Hardware	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None
Contacts	Copper Alloy	Gold over Nickel

Specifications

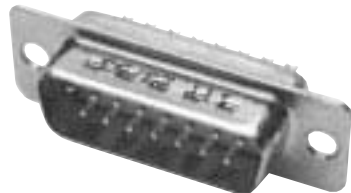
Temperature Rating	-55°C to 125°C
Current Rating	3 A (20 AWG) 2 A (22 AWG) 1,4 A (24 AWG) 1,2 A (26 AWG) 1 A (28 AWG) 0,8 A (30 AWG)
Contact Resistance	15 mΩ
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Materials and Finishes

Description	Material	Finish
Shell/Hardware	Steel	Tin
Insulator	Thermoplastic, UL 94V-0	None
Contacts	Copper Alloy	Gold over Nickel in mating area, Tin on balance

Solder Cup Termination (Machined) with Tin Shells

Plug



Part Numbers

Shell Size	Layout	Through Hole	Clinch Nut #4-40 UNC	Clinch Nut M3
DE	9	DE9PK87	DEE9PK87	DEX9PK87
DA	15	DA15PK87	DAE15PK87	DAX15PK87
DB	25	DB25PK87	DBE25PK87	DBX25PK87
DC	37	DC37PK87	DCE37PK87	DCX37PK87
DD	50	DD50PK87	DDE50PK87	DDX50PK87

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 30-31.

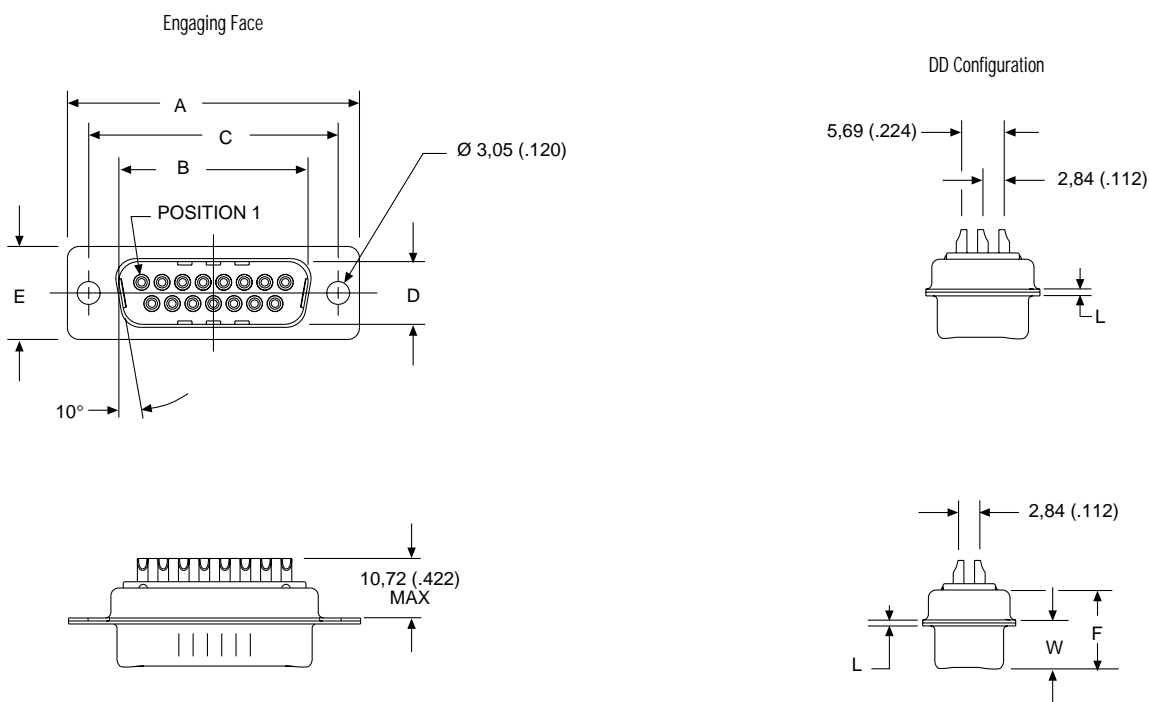
Note: For performance class 2, add A191. Example: DA15PA191K87.

Reader's Resource

For contact cavity arrangements, see page 224.

For panel cutouts, see page 221.

For hardware views (European), see page 227.



Dimensions

Shell Size	A	B	C	D	E	F	W	W	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,368 (.0145)	±0,41 (.016)	±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	0,99 (.039)

Solder Cup Termination (Machined) with Tin Shells

Receptacle



Part Numbers

Shell Size	Layout	Through Hole	Clinch Nut #4-40 UNC	Clinch Nut M3
DE	9	DE9SA197	DEE9SA197	DEX9SA197
DA	15	DA15SA197	DAE15SA197	DAX15SA197
DB	25	DB25SA197	DBE25SA197	DBX25SA197
DC	37	DC37SA197	DCE37SA197	DCX37SA197
DD	50	DD50SA197	DDE50SA197	DDX50SA197

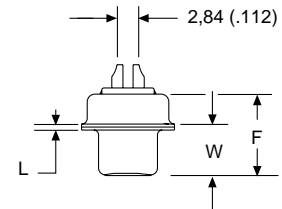
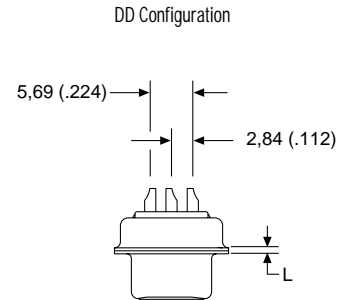
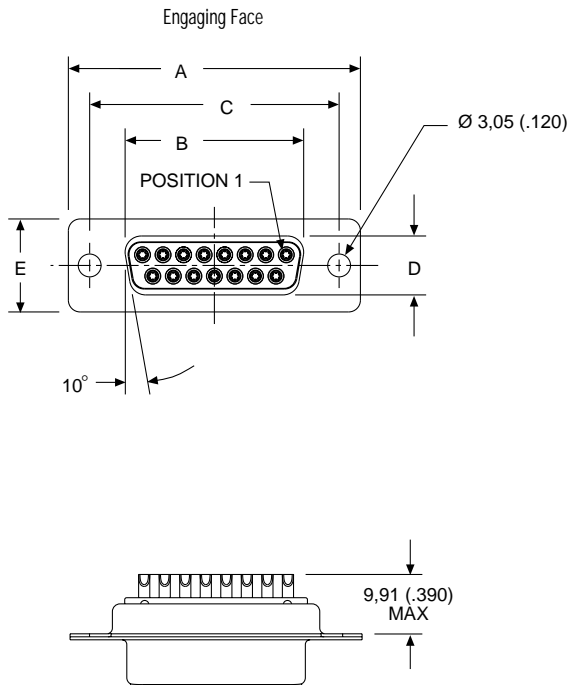
Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 30-31.

Note: For performance class 2, add A191. Example: DA15SA191A197.

Reader's Resource

For contact cavity arrangements, see page 224.
 For panel cutouts, see page 221.
 For hardware views (European), see page 227.



Dimensions

Shell Size	A ±0,38 (.015)	B ±0,13 (.005)	C ±0,13 (.005)	D ±0,13 (.005)	E ±0,38 (.015)	F ±0,25 (.010)	W ±0,38 (.015)	L ±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	0,76 (.030)

Solder Cup Termination (Stamped) with Tin Shells

Plug

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 30-31.

Reader's Resource

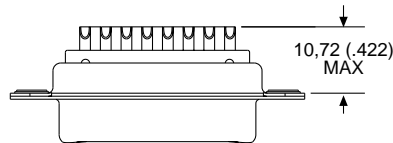
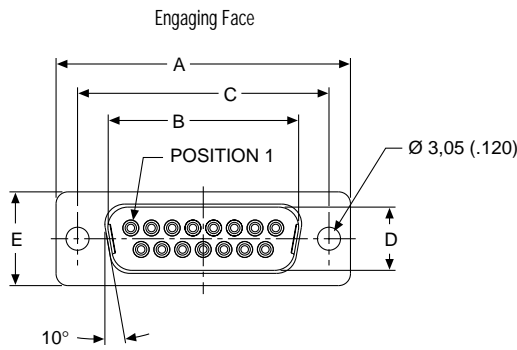
For contact cavity arrangements, see page 224.

For panel cutouts, see page 221.

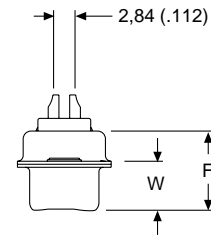
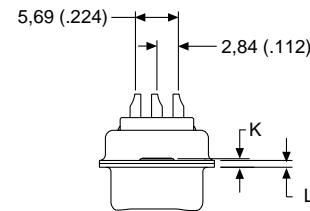
For hardware views (Standard), see page 226.

Part Numbers

Shell Size	Layout	Through Hole
DE	9	ZDE9P
DA	15	ZDA15P
DB	25	ZDB25P
DC	37	ZDC37P
DD	50	ZDD50P



DD Configuration



Dimensions

Shell Size	A	B	C	D	E	F	W	W	K	K	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,368 (.0145)	±0,41 (.016)	±0,317 (.0125)	±0,25 (.010)	±0,25 (.010)
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	1,206 (.0475)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	1,206 (.0475)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	—	1,52 (.060)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	—	1,52 (.060)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	—	1,52 (.060)	0,99 (.039)

Solder Cup Termination (Stamped) with Tin Shells

Receptacle



Part Numbers

Shell Size	Layout	Through Hole
DE	9	ZDE9S
DA	15	ZDA15S
DB	25	ZDB25S
DC	37	ZDC37S
DD	50	ZDD50S

Selection Guide

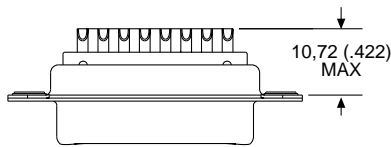
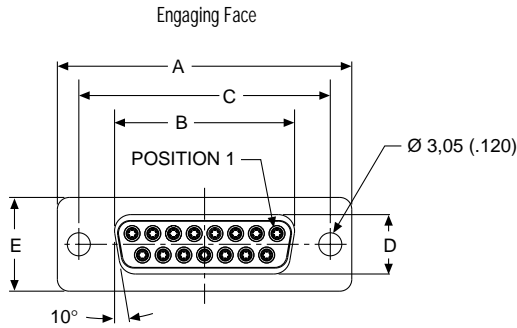
For Product Features, Specifications, Materials and Finishes, see pages 30-31.

Reader's Resource

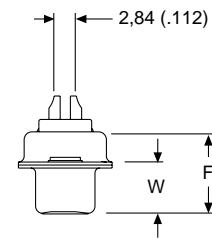
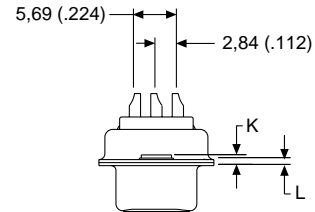
For contact cavity arrangements, see page 224.

For panel cutouts, see page 221.

For hardware views (Standard), see page 226.



DD Configuration



Dimensions

Shell Size	A	B	C	D	E	F	W	K	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,38 (.015)	±0,318 (.0125)	±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)

Crimp Connectors without Contacts

Plug



Part Numbers

Shell Size	Layout	Through Hole
DE	9	DEA9PK87FO
DA	15	DAA15PK87FO
DB	25	DBA25PK87FO
DC	37	DCA37PK87FO

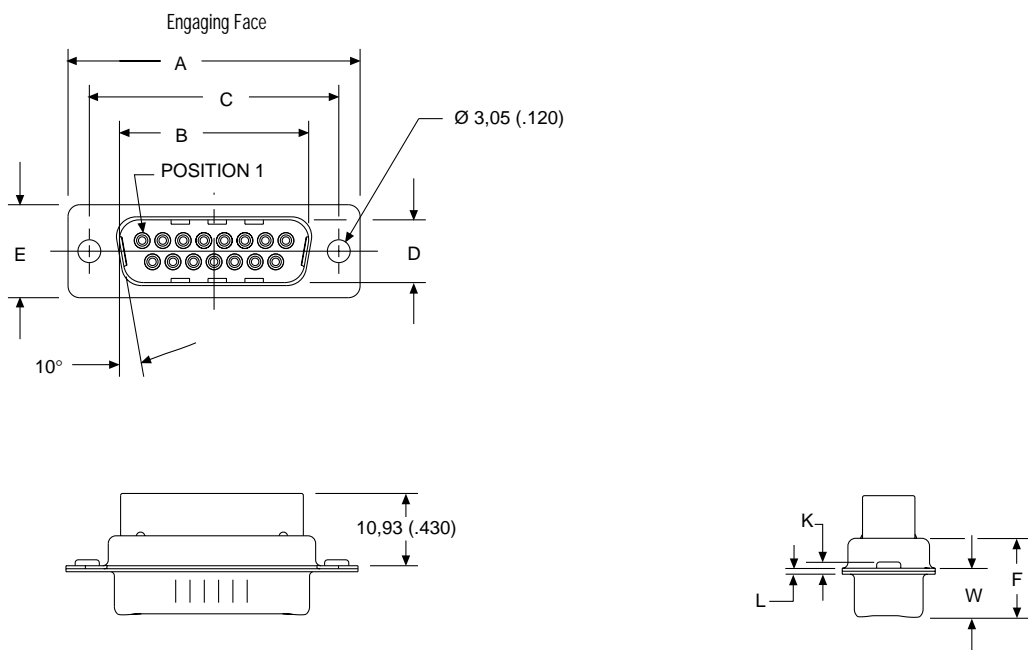
Note: For crimp (size 20) contacts and tooling, see pages 83 & 275.

Selection Guide

For Product Features, Specifications, Materials and Finishes, see pages 30-31.

Reader's Resource

For contact cavity arrangements, see page 224.
 For panel cutouts, see page 221.
 For hardware views (Standard), see page 226.

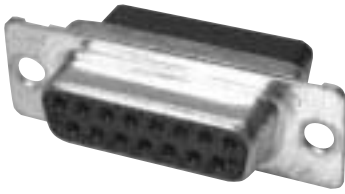


Dimensions

Shell Size	A $\pm 0,38 (.015)$	B $\pm 0,13 (.005)$	C $\pm 0,13 (.005)$	D $\pm 0,13 (.005)$	E $\pm 0,38 (.015)$	F $\pm 0,25 (.010)$	W $\pm 0,368 (.0145)$	W $\pm 0,41 (.016)$	K $\pm 0,317 (.0125)$	K $\pm 0,25 (.010)$	L $\pm 0,25 (.010)$
DE	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	1,206 (.0475)	—	0,76 (.030)
DA	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,693 (.2635)	—	1,206 (.0475)	—	0,76 (.030)
DB	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	—	1,52 (.060)	0,99 (.039)
DC	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	—	6,84 (.269)	—	1,52 (.060)	0,99 (.039)
DD	66,93 (2.635)	52,81 (2.079)	61,11 (2.406)	11,07 (.436)	15,37 (.605)	10,82 (.426)	—	6,84 (.269)	—	1,52 (.060)	0,99 (.039)

Crimp Connectors without Contacts

Receptacle



Part Numbers

Shell Size	Layout	Through Hole
DE	9	DEA9SA197FO
DA	15	DAA15SA197FO
DB	25	DBA25SA197FO
DC	37	DCA37SA197FO

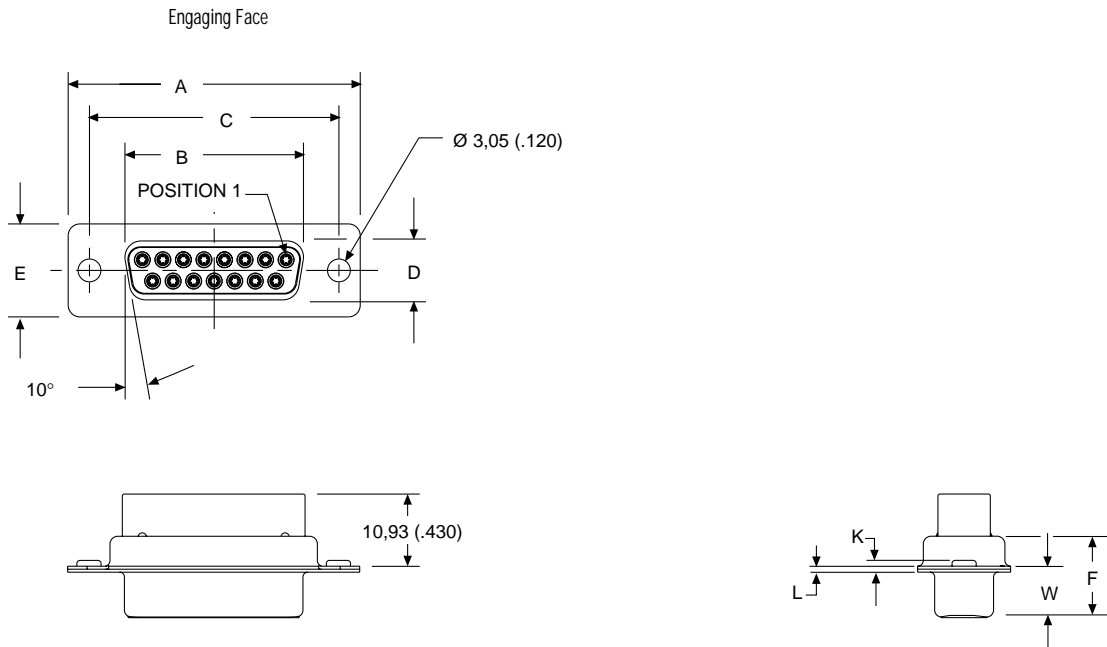
Note: For crimp (size 20) contacts and tooling, see pages 83 & 275.

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Dimensions

Shell Size	A	B	C	D	E	F	W	K	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	±0,38 (.015)	±0,318 (.0125)	±0,25 (.010)
DE	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DA	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DB	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DC	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)
DD	66,93 (2.635)	52,42 (2.064)	61,11 (2.406)	10,74 (.423)	15,37 (.605)	10,90 (.429)	6,94 (.273)	1,206 (.0475)	0,76 (.030)