

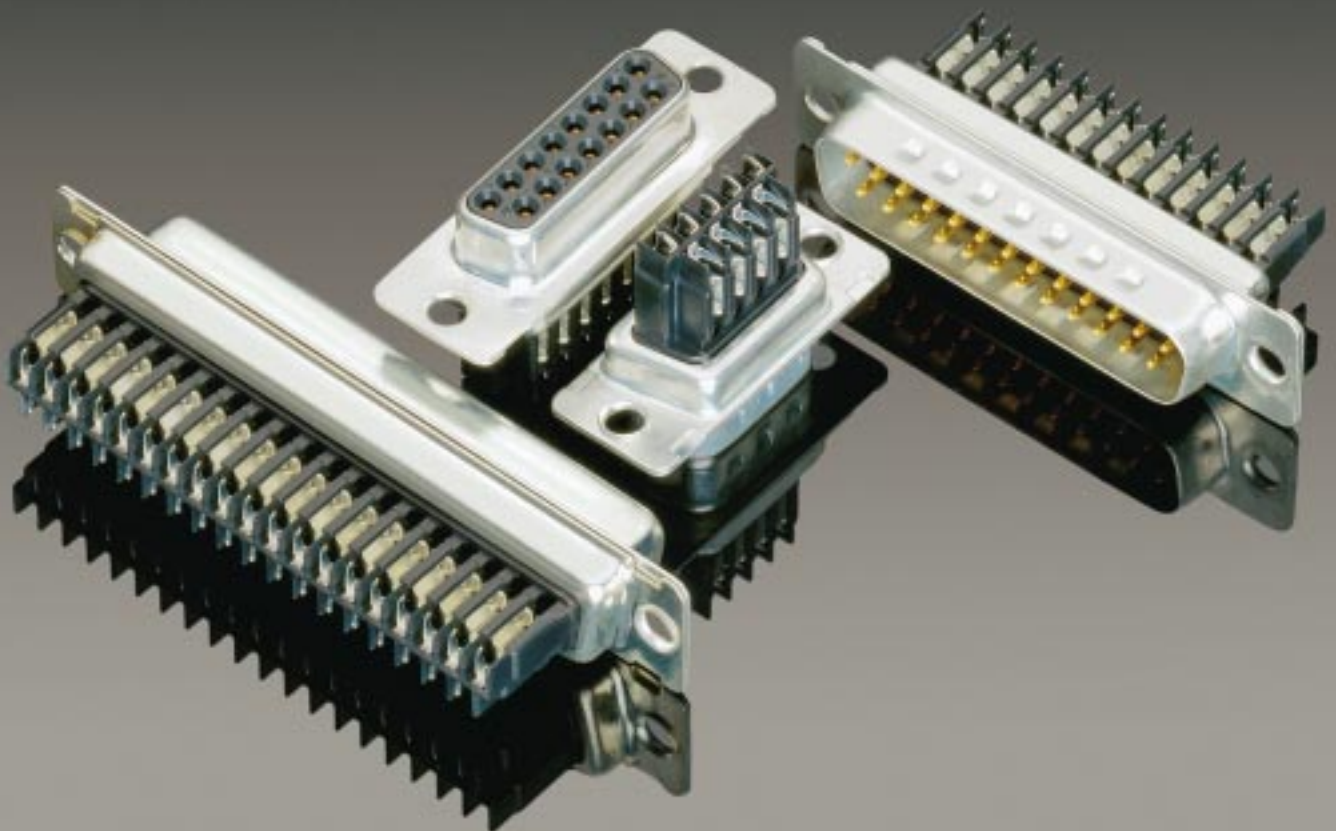
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D\*W

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CONNECTORS

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## Discrete Wire IDC

The D\*W connector provides insulation displacement connection technology for either solid or strand 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.



Plug



Receptacle

### Product Features

- ◆ Quick harnessing capability with simple hand or semi-automatic tooling.
- ◆ Wire accommodation
  - 28 AWG / 30 AWG Contact Type 1
  - 22 AWG / 26 AWG Contact Type 2
  - 20 AWG / 22 AWG Contact Type 3
  - (Sizes can be mixed)
- ◆ Contact cavity arrangements: shell sizes E, A, B, and C.
- ◆ Front shell with dimple indents (P type)
- ◆ Shield cans insure reliable shielding continuity
- ◆ Current rating: 0.8 A to 3.0 A
- ◆ Dual float mount options (Code Y)
- ◆ Optional clinch nuts with #4-40 threads (Code E)
- ◆ Stamped contacts

### Materials and Finishes

Contacts	Copper Alloy
Contact Finish	Gold over Nickel in mating area, Tin on balance
	Optional 0.76 $\mu\text{m}$ Gold, suffix -A176
Insulator	Thermoplastic UL 94 V-0, Color black
Shell and Hardware	Steel, tinned

### Performance Specifications

Current Rating	3.0 A (20 AWG) – 0.8 A (30 AWG)
Temperature Rating	-55 to +125 °C
Contact Resistance	15 milliohm max.
Dielectric Withstanding Voltage	1000 VAC at Sea Level

Plug

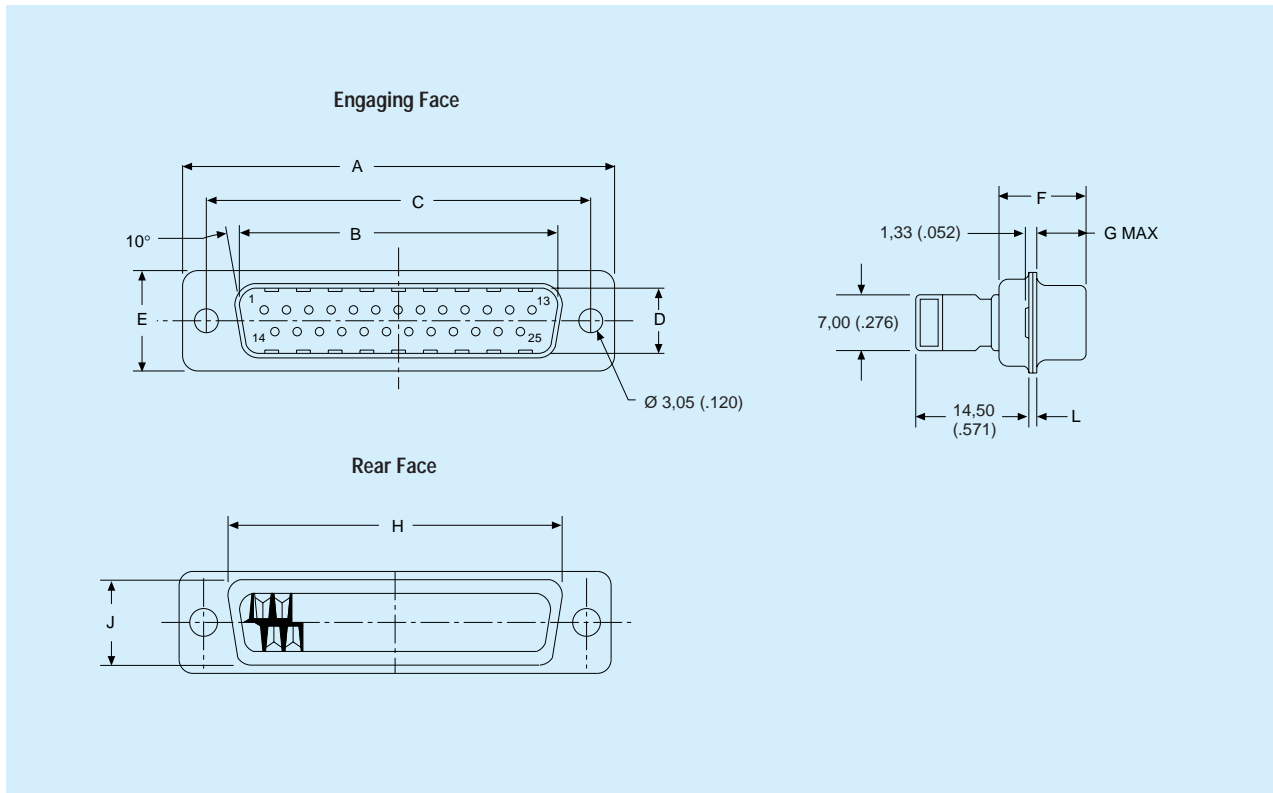
Part Numbers

Shell Size	Layout	Through Hole	Dual Float Mount	Clinch Nut # 4-40 UNC	Through Hole & Shield Can Kit	Clinch Nut # 4-40 UNC & Shield Can Kit
E	9	DEW9P*	DEWY9P*	DEWE9P*	DEW9P*G	DEWE9P*G
A	15	DAW15P*	DAWY15P*	DAWE15P*	DAW15P*G	DAWE15P*G
B	25	DBW25P*	DBWY25P*	DBWE25P*	DBW25P*G	DBWE25P*G
C	37	DCW37P*	DCWY37P*	DCWE37P*	DCW37P*G	DCWE37P*G

Note: \*Insert contact type. Example: DEW9P1.

For contacts with 0.76 µm Gold add -A176. Example: DEW9P1-A176

Contact Types	Wire Accomodation
1	28 AWG / 30 AWG
2	22 AWG / 26 AWG
3	20 AWG / 22 AWG



Dimensions

Shell size	A	B	C	D	E	F	G	H	J	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	G max.	±0,25 (.010)	±0,25 (.010)	±0,25 (.010)
E	30,81 (1.213)	16,92 (.666)	24,99 (.984)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,05 (.238)	19,27 (.759)	10,71 (.422)	0,76 (.030)
A	39,14 (1.541)	25,25 (.994)	33,32 (1.312)	8,36 (.329)	12,55 (.494)	10,72 (.422)	6,05 (.238)	27,50 (1.038)	10,71 (.422)	0,76 (.030)
B	53,04 (2.088)	38,96 (1.534)	47,04 (1.852)	8,36 (.329)	12,55 (.494)	10,82 (.426)	5,99 (.236)	41,27 (1.625)	10,71 (.422)	0,99 (.039)
C	69,32 (2.729)	55,42 (2.182)	63,50 (2.500)	8,36 (.329)	12,55 (.494)	10,82 (.426)	5,99 (.236)	57,70 (2.272)	10,71 (.422)	0,99 (.039)

## Receptacle

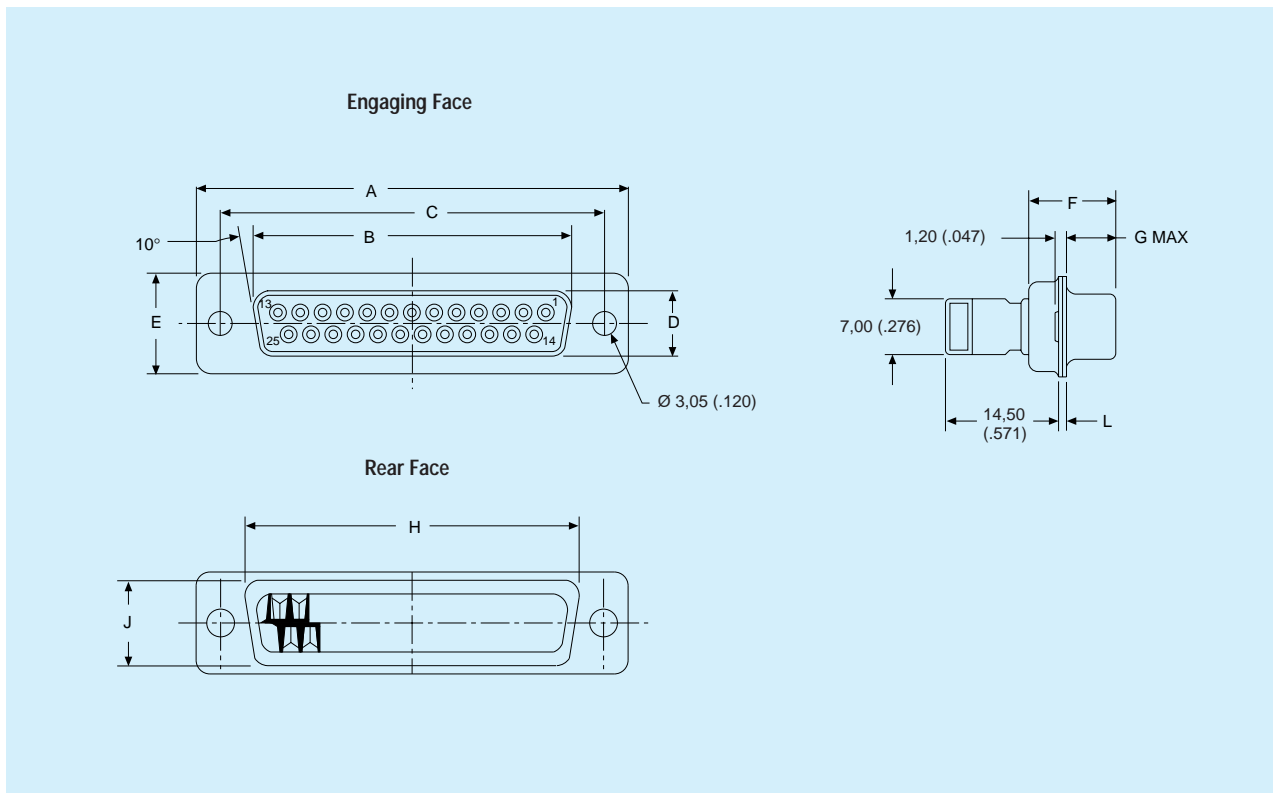
### Part Numbers

Shell Size	Layout	Through Hole	Dual Float Mount	Clinch Nut # 4-40 UNC	Through Hole & Shield Can Kit	Clinch Nut # 4-40 UNC & Shield Can Kit
E	9	DEW9S*	DEWY9S*	DEWE9S*	DEW9S*G	DEWE9S*G
A	15	DAW15S*	DAWY15S*	DAWE15S*	DAW15S*G	DAWE15S*G
B	25	DBW25S*	DBWY25S*	DBWE25S*	DBW25S*G	DBWE25S*G
C	37	DCW37S*	DCWY37S*	DCWE37S*	DCW37S*G	DCWE37S*G

Note: \*Insert contact type. Example: DEW9S1.

For contacts with 0.76 µm Gold add -A176. Example: DEW9S1-A176

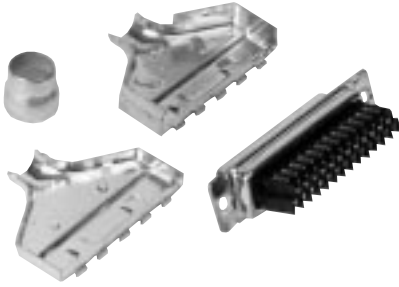
Contact Types	Wire Accomodation
1	28 AWG / 30 AWG
2	22 AWG / 26 AWG
3	20 AWG / 22 AWG



### Dimensions

Shell size	A	B	C	D	E	F	G	H	J	L
	±0,38 (.015)	±0,13 (.005)	±0,13 (.005)	±0,13 (.005)	±0,38 (.015)	±0,25 (.010)	G max.	±0,25 (.010)	±0,25 (.010)	±0,25 (.010)
E	30,81 (1.213)	16,33 (.643)	24,99 (.984)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,30 (.248)	19,27 (.759)	10,71 (.422)	0,76 (.030)
A	39,14 (1.541)	24,66 (.971)	33,32 (1.312)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,30 (.248)	27,50 (1.038)	10,71 (.422)	0,76 (.030)
B	53,04 (2.088)	38,38 (1.511)	47,04 (1.852)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,30 (.248)	41,27 (1.625)	10,71 (.422)	0,76 (.030)
C	69,32 (2.729)	54,84 (2.159)	63,50 (2.500)	7,90 (.311)	12,55 (.494)	10,90 (.429)	6,30 (.248)	57,70 (2.272)	10,71 (.422)	0,76 (.030)

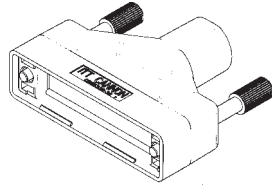
Shield Can Kit



Shield can kit: available for shell sizes E & B  
(For other shell sizes, consult factory).

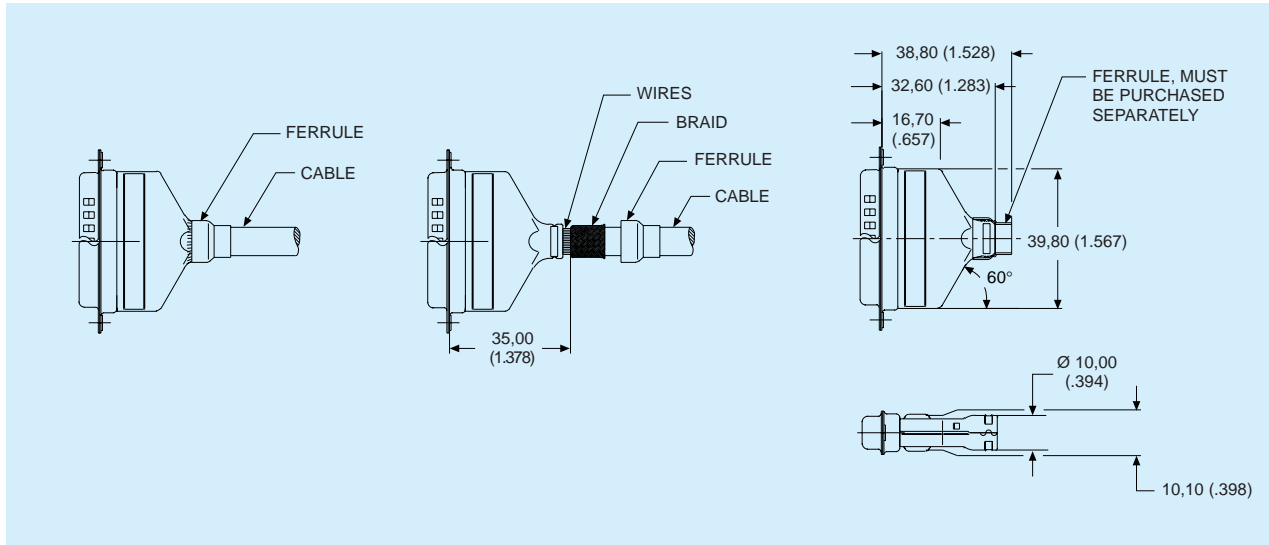
Ferrule

Cable Diameter	Ferrule Diameter A	Ferrule Part Number	Crimp Tool Part Number	Crimp Tool Position
4,8 / 5,5	6.25 (.246)	304-8810-000	D115433-1	B
5,5 / 6,2	6.25 (.246)	304-8810-000	D115433-1	A
6,2 / 7,2	8.2 (.323)	304-8811-000	D115433-2	B
7,2 / 8,2	8.2 (.323)	304-8811-000	D115433-2	A
8,2 / 9,5	9.5 (.374)	304-8812-000	D115433-3	B
9,5 / 11,1	11.5 (.452)	304-8813-000	D115433-3	A

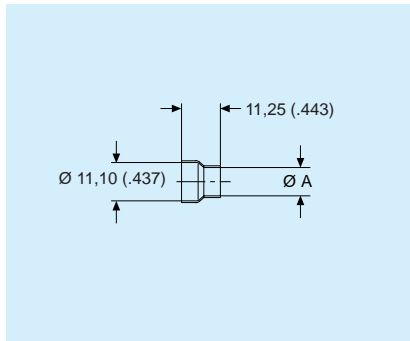


Materials and Finishes

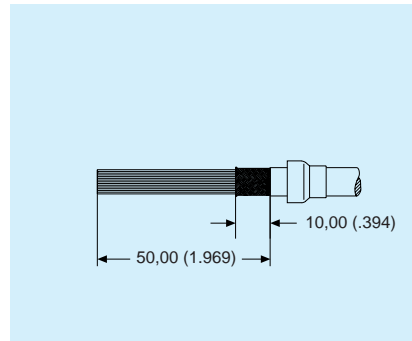
Shield Can and Ferrule	
Material	Steel
Finish	Tin



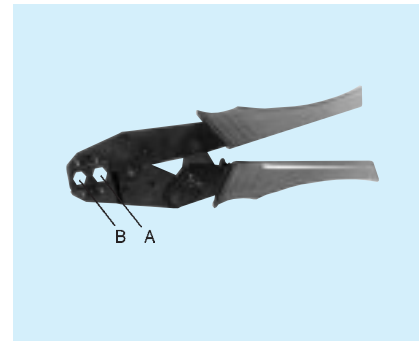
Ferrule



Wire Trim Dimensions



Crimp Tool Positions



## Discrete Wire IDC Contacts

### Contacts

Contact Types	1	2	3
Pin	330-8753-101	330-8753-102	330-8753-103
Socket	330-8754-101	330-8754-102	330-8754-103

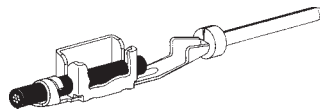
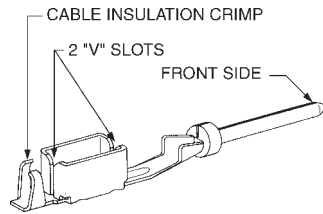
### Solid Cable

Wire Size	28 AWG	30 AWG	22 AWG	24 AWG	26 AWG	20 AWG	22 AWG
Section mm <sup>2</sup>	0.08	0.05	0.34	0.22	0.12	0.60	0.34
Internal dia. mm max.	0.32	0.26	0.62	0.51	0.40	0.88	0.62
External dia. mm max.	1.30	1.20	1.45	1.45	1.40	1.45	1.45

### Stranded Cable

Wire Size	28 AWG	30 AWG	22 AWG	24 AWG	26 AWG	20 AWG	22 AWG
Section mm <sup>2</sup>	0.09	0.05	0.34	0.22	0.12	0.60	0.34
Composition	7 x 0.13	7 x 0.10	7 x 0.25	7 x 0.20	7 x 0.15	19 x 0.20	7 x 0.25
Internal cable dia. mm max.	0.40	0.30	0.75	0.60	0.45	0.97	0.75
External cable dia. mm max.	1.30	1.20	1.45	1.45	1.40	1.45	1.45

## Insulation Displacement Connection Concept



## Tooling

### Extraction Tool



Part Number

DW115394

### Hand Crimp Tool



Part Number

Standard Tool: DW115394-1

Automatic Tool: DW115394-2

Tool Support: DW115394-20

### Row by Row Hand Lever Tool



Part Number

DW115394-550

### Row by Row Pneumatic Press

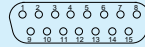
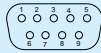


Part Number

DW115394-501

## Contact Cavity Arrangements

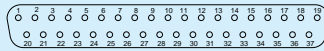
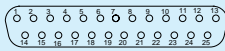
Face View Pin Insert



Shell size  
Contact Arrangement  
Contact size

E  
9  
#20

A  
15  
#20



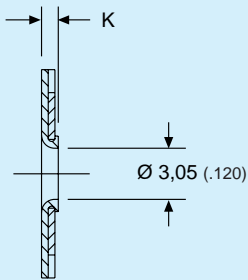
Shell size  
Contact Arrangement  
Contact size

B  
25  
#20

C  
37  
#20

## Hardware Views

### Through Hole (Eyelet)



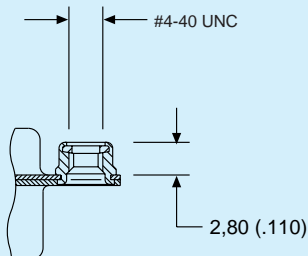
### Dimensions – Plug

Shell Size	K	K
	$\pm 0,318 (.0125)$	$\pm 0,25 (.010)$
E	1,206 (.0475)	–
A	1,206 (.0475)	–
B	–	1,52 (.060)
C	–	1,52 (.060)

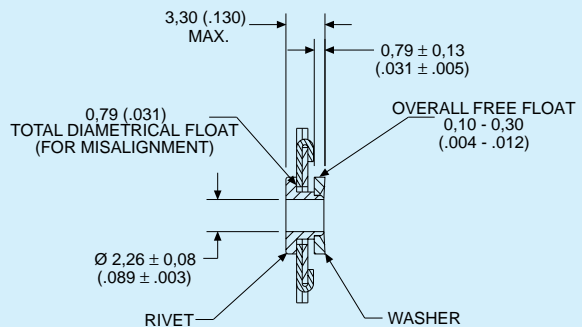
### Dimensions – Receptacle

Shell Size	K
	$\pm 0,318 (.0125)$
E	1,206 (.0475)
A	1,206 (.0475)
B	1,206 (.0475)
C	1,206 (.0475)

### Clinch Nut (E)



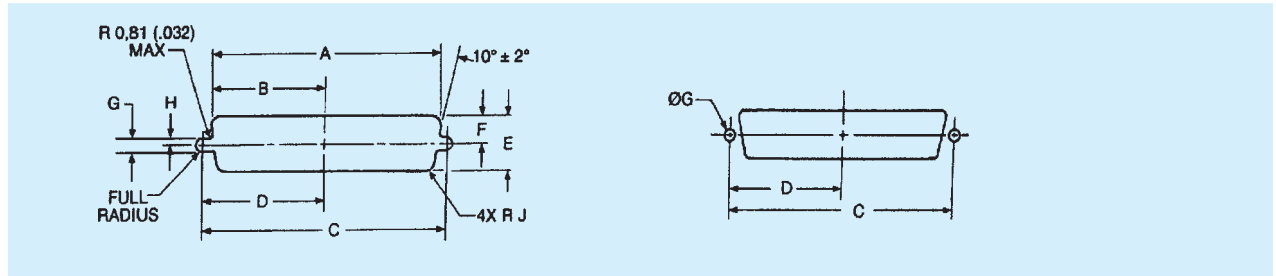
### Dual Float Mount (Y)



Panel Cutouts

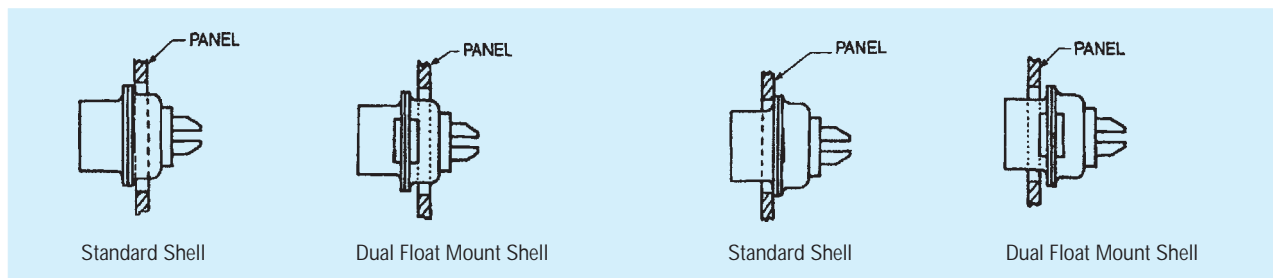
Standard Cutout

Rear Mounting Cutout (optional)



Front Panel Mounting

Rear Panel Mounting



Standard Shell

Shell Size	Mounting Method	A	B	C	D	E	F	G	H	J
E	Front	22,19 (.874)	11,09 (.437)	24,99 (.984)	12,49 (.492)	13,03 (.513)	6,52 (.257)	3,04 (.120)	1,52 (.060)	2,10 (.083)
	Rear	20,47 (.806)	10,23 (.403)	24,99 (.984)	12,49 (.492)	11,40 (.449)	5,71 (.225)	3,04 (.120)	1,52 (.060)	3,35 (.132)
A	Front	30,53 (1.202)	15,26 (.601)	33,32 (1.312)	16,66 (.656)	13,03 (.513)	6,52 (.257)	3,04 (.120)	1,52 (.060)	2,10 (.083)
	Rear	28,80 (1.134)	14,40 (.567)	33,32 (1.312)	16,66 (.656)	11,40 (.449)	5,71 (.225)	3,04 (.120)	1,52 (.060)	3,35 (.132)
B	Front	44,27 (1.743)	22,14 (.872)	47,04 (1.852)	23,52 (.926)	13,03 (.513)	6,52 (.257)	3,04 (.120)	1,52 (.060)	2,10 (.083)
	Rear	42,51 (1.674)	21,25 (.837)	47,04 (1.852)	23,52 (.926)	11,40 (.449)	5,71 (.225)	3,04 (.120)	1,52 (.060)	3,35 (.132)
C	Front	60,73 (2.391)	30,37 (1.196)	63,50 (2.500)	31,75 (1.250)	13,03 (.513)	6,52 (.257)	3,04 (.120)	1,52 (.060)	2,10 (.083)
	Rear	59,08 (2.326)	29,54 (1.163)	63,50 (2.500)	31,75 (1.250)	11,40 (.449)	5,71 (.225)	3,04 (.120)	1,52 (.060)	3,35 (.132)

Dual Float Mount Shell

Shell Size	Mounting Method	A	B	C	D	E	F	G	H	J
E	Front	23,01 (.906)	11,50 (.453)	24,99 (.984)	12,49 (.492)	13,84 (.545)	6,93 (.273)	2,23 (.088)	1,11 (.044)	2,10 (.083)
	Rear	21,28 (.838)	10,64 (.419)	24,99 (.984)	12,49 (.492)	12,21 (.481)	6,12 (.241)	2,23 (.088)	1,11 (.044)	3,35 (.132)
A	Front	31,34 (1.234)	15,67 (.617)	33,32 (1.312)	16,66 (.656)	13,84 (.545)	6,93 (.273)	2,23 (.088)	1,11 (.044)	2,10 (.083)
	Rear	29,61 (1.166)	14,80 (.583)	33,32 (1.312)	16,66 (.656)	12,21 (.481)	6,12 (.241)	2,23 (.088)	1,11 (.044)	3,35 (.132)
B	Front	45,08 (1.775)	22,55 (.888)	47,04 (1.852)	23,52 (.926)	13,84 (.545)	6,93 (.273)	2,23 (.088)	1,11 (.044)	2,10 (.083)
	Rear	43,33 (1.706)	21,66 (.853)	47,04 (1.852)	23,52 (.926)	12,21 (.481)	6,12 (.241)	2,23 (.088)	1,11 (.044)	3,35 (.132)
C	Front	61,54 (2.423)	30,78 (1.212)	63,50 (2.500)	31,75 (1.250)	13,84 (.545)	6,93 (.273)	2,23 (.088)	1,11 (.044)	2,10 (.083)
	Rear	59,79 (2.354)	29,89 (1.177)	63,50 (2.500)	31,75 (1.250)	12,21 (.481)	6,12 (.241)	2,23 (.088)	1,11 (.044)	3,35 (.132)