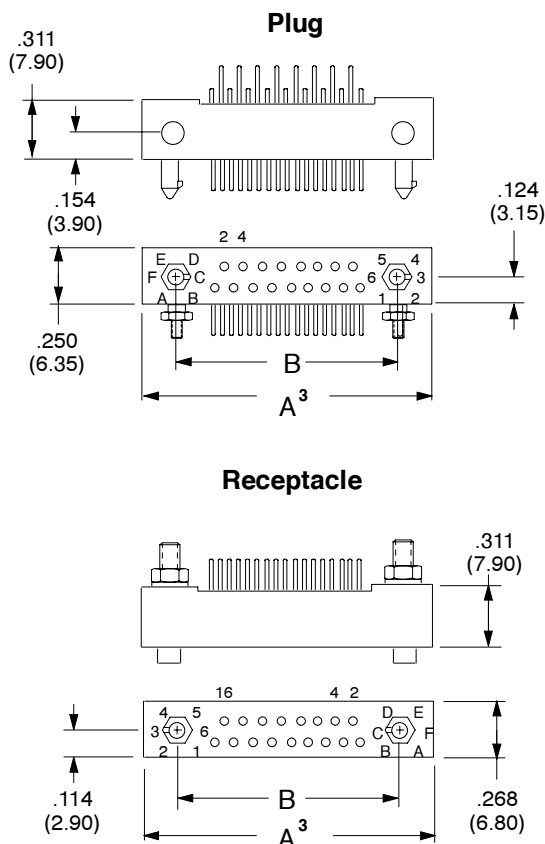


DOD-C-55302 QPL D CONNECTORS 17, 29, 33, 41, 53, 62, 65, 72, 80, 84, 96, 98, 120, 126, 160 Contacts

- 2 and 3 row p.c. board connectors.
- Provide applications flexibility not available in other MIL-C-55302 connectors.
- Over 2,500 models can be constructed with available components.
- .100" (2.54mm) on center [adjacent rows offset by .050" (1.27mm) to allow for straight p.c. traces].
- Straight Dip, Right Angle Solder, Crimp, Solder Cup, and Wire Wrap® terminations.
- .0235" (.6mm) dia. pins/sockets rated at 4 amps.
- Average insertion/extraction force of 1 ounce contact.
- Contacts removable from wiring side (front release, rear removable).
- Front release, front removable option available on receptacle with 160 contacts.
- Alignment and keying provided by the end guides - 36 combinations (user changeable).
- Male or female contacts available in either plug or receptacle.
- Male or female guides are available in either plug or receptacle.

CONNECTOR DIMENSIONS ¹ 17 to 65 CONTACTS



Notes

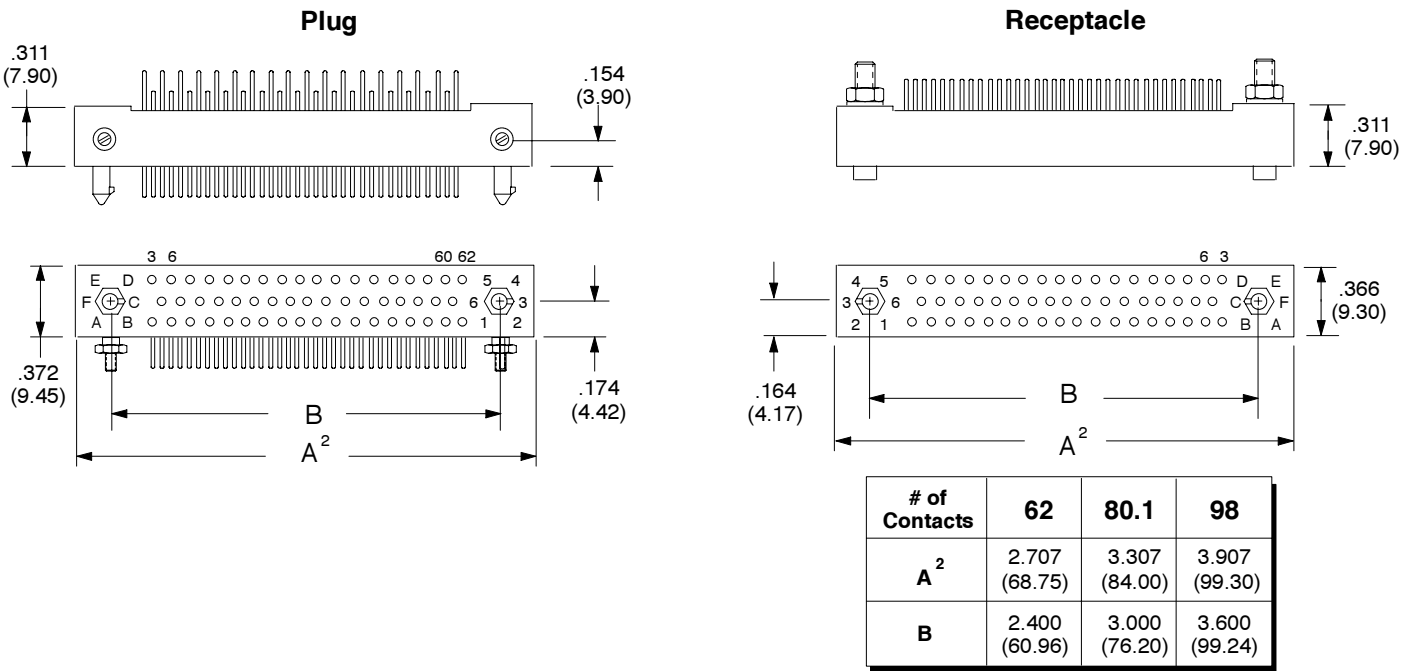
- 1) Dimensions in inches (mm)
- 2) Mated length .622 (15.80) unless otherwise specified
- 3) Tolerance ± .020 (.5)

GENERAL SPECIFICATIONS

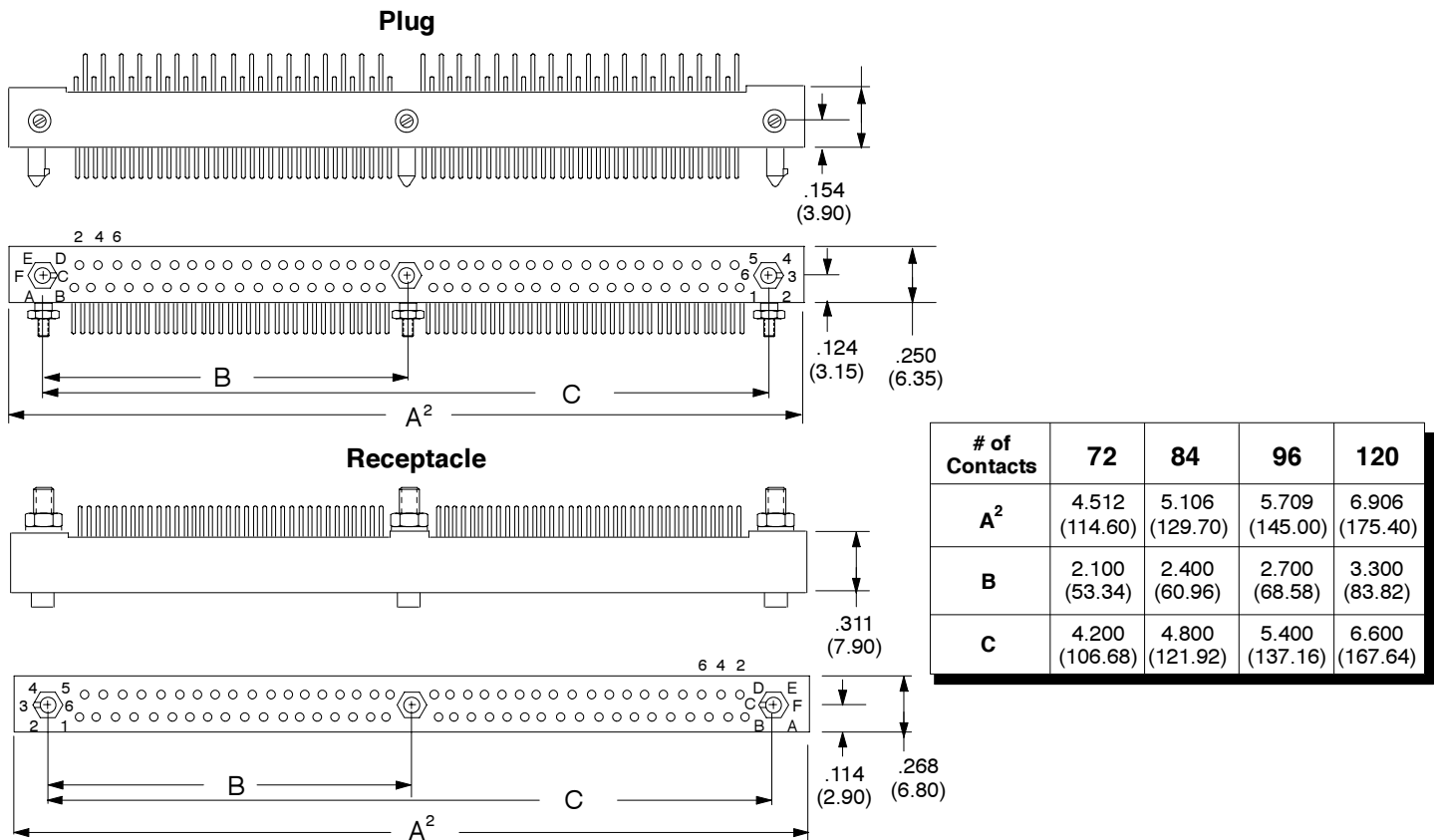
Number Contacts	17, 29, 33, 41, 53, 62, 65, 72, 80, 84, 96, 98, 120, 126, 160
Contact Diameter	.0235 (.60)
Current Rating	4 amps, 30° C Rise
Contact Resistance	< 5 milliohms
Extraction Force	.3 - 2 oz.
Contact Life Cycles	·100,000
Breakdown Voltage Between Contacts	>1600 RMS
Dielectric Withstanding Voltage:	1200RMS
Insulation Resistance	>10 ⁶ Megohms @ 500 VDC
Temperature Rating	-55°C to + 125°C
Insulator	Diallyl-phthalate
Contact Material:	BeCu wires + Brass body
Plating:	Gold over Nickel
Guide Hardware Material:	Brass
Plating:	Nickel
Plating Reference:	
Male Pins:	T = 10 μin gold (min) over Ni TH = 50 μin gold (min) over Ni
Female Sockets:	TAH = 50 μin gold (min) over Ni on mating surface, gold flash over Ni on termination

# of Contacts	17	29	33	41	53	65
A ³	1.508 (38.30)	2.106 (53.50)	2.307 (58.60)	2.709 (68.80)	3.307 (84.00)	3.909 (99.30)
B	1.200 (30.48)	1.801 (45.75)	2.000 (50.80)	2.401 (60.98)	3.000 (76.20)	3.600 (91.44)

CONNECTOR DIMENSIONS¹ 62, 80.1 & 98 CONTACTS



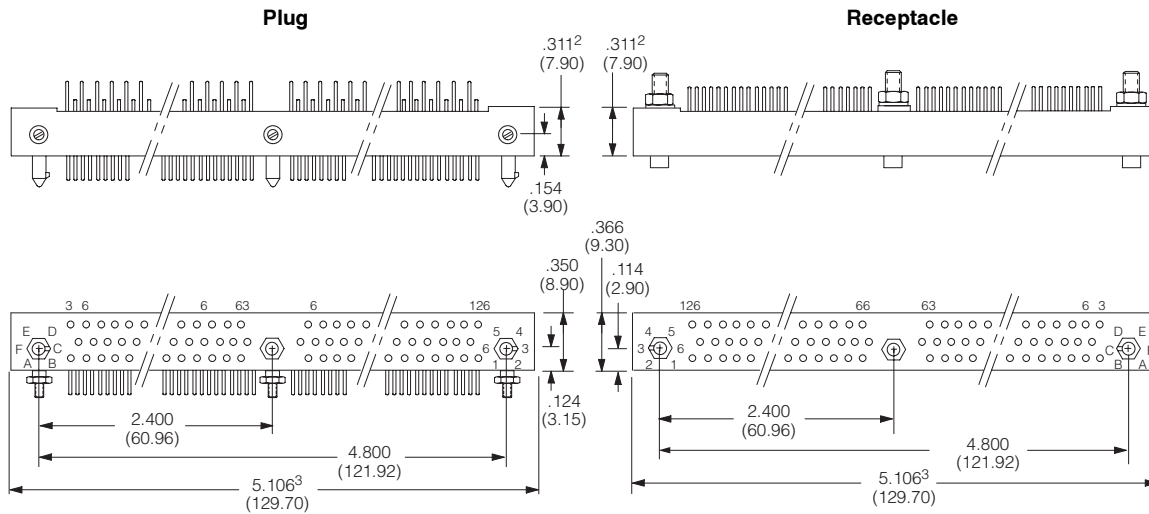
CONNECTOR DIMENSIONS¹ 72, 84, 96, & 120



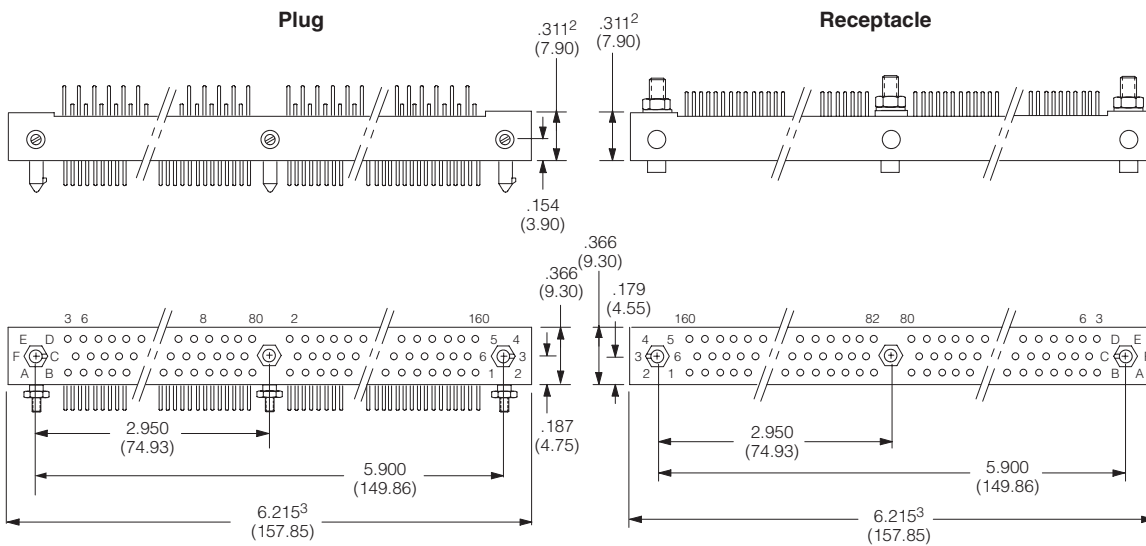
Notes

- 1) Dimensions in inches (mm)
- 2) Tolerance ± .020 (.5)
- 3) Only available with straight dip tails (style "D") + 21 style mounting

CONNECTOR DIMENSIONS¹
126 CONTACTS

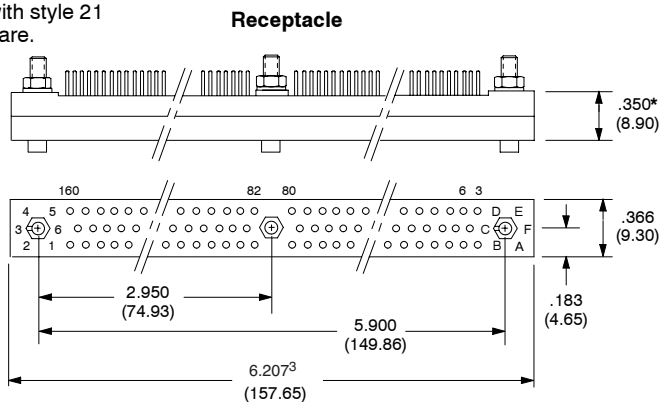


CONNECTOR DIMENSIONS¹
160 CONTACTS



CONNECTOR DIMENSIONS¹
160.4 CONTACTS³
(Front Removable)

Only available with style 21 mounting hardware.



*Mates with standard plug
Mated length .665 (16.9)

Notes

- 1) Dimensions in inches (mm)
- 2) Mated Length .622 (15.8)
- 3) Tolerance $\pm .020$ (.5)
- 4) Only available with straight dip solder (style "D") and wire wrap (style "Y") tails

TERMINAL STYLES

Ref.

Plugs

Receptacles

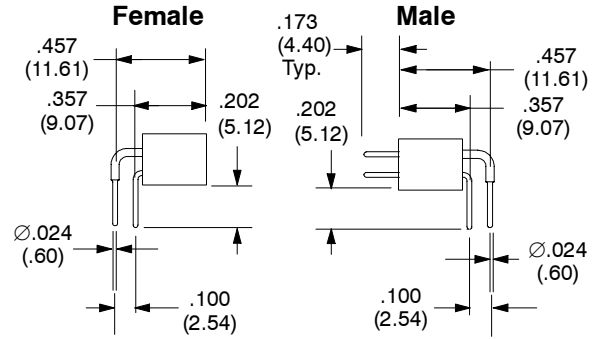
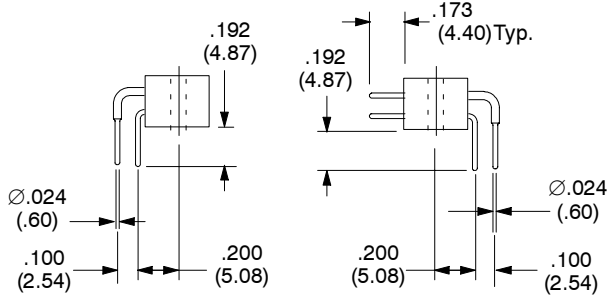
Female

Male

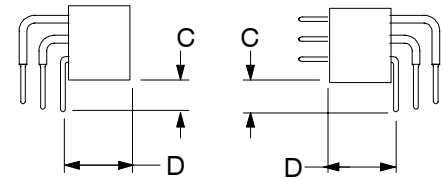
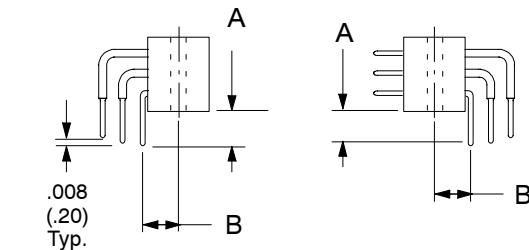
Female

Male

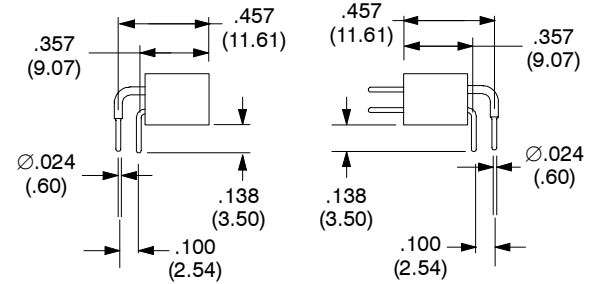
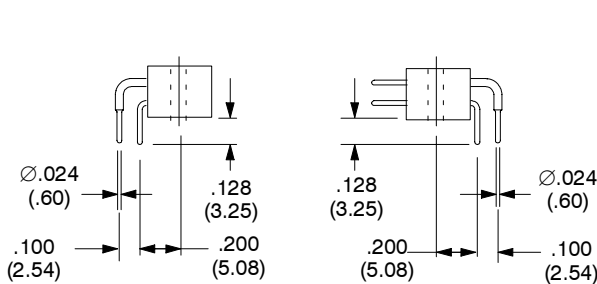
B
For 1/8"
P.C. Board
2 Row &
KA126 3
Row



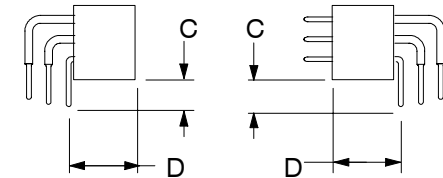
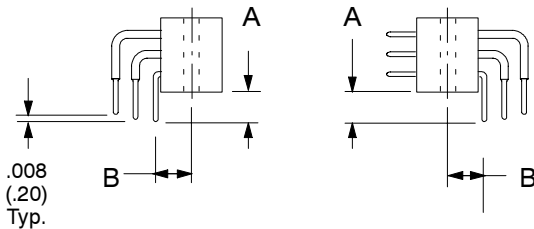
B
For 1/8"
P.C. Board
3 Row



C
For 1/16"
P.C. Board
2 Row &
KA126 3
Row



C
For 1/16"
P.C. Board
3 Row



Ref.	Terminal Style
B	Right angle dip solder (1/8" board)
C	Right angle dip solder (1/16" board)

Notes

- 1) Dimensions in inches (mm)
- 2) All tails lengths are ± .015 (.4) long

3 ROW CONNECTORS				
No. of Contacts	62, 80.1, & 98		160	
Dim.	Style B	Style C	Style B	Style C
A	.191 (4.86)	.128 (3.25)	.178 (4.53)	.115 (2.92)
B	.200 (5.08)	.200 (5.08)	.188 (4.79)	.188 (4.79)
C	.201 (5.11)	.138 (3.50)	.188 (4.78)	.125 (3.17)
D	.354 (8.98)	.354 (8.98)	.342 (8.68)	.342 (8.68)

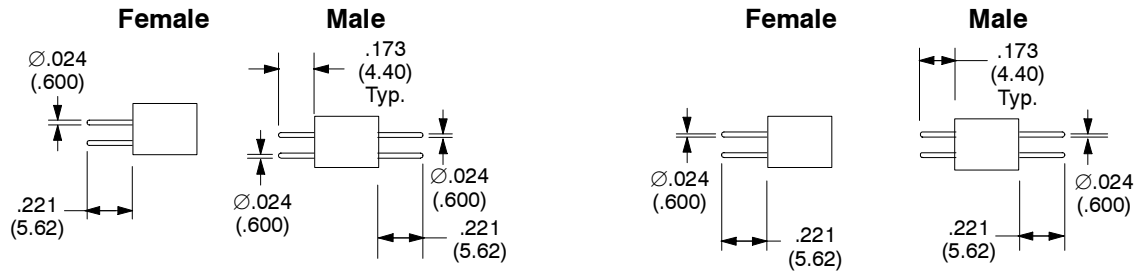
TERMINAL STYLES

Ref.

Plugs

Receptacles

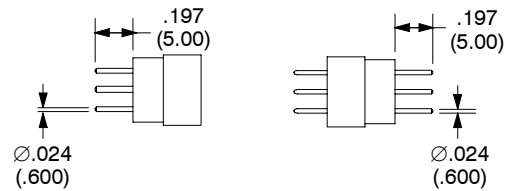
D



D

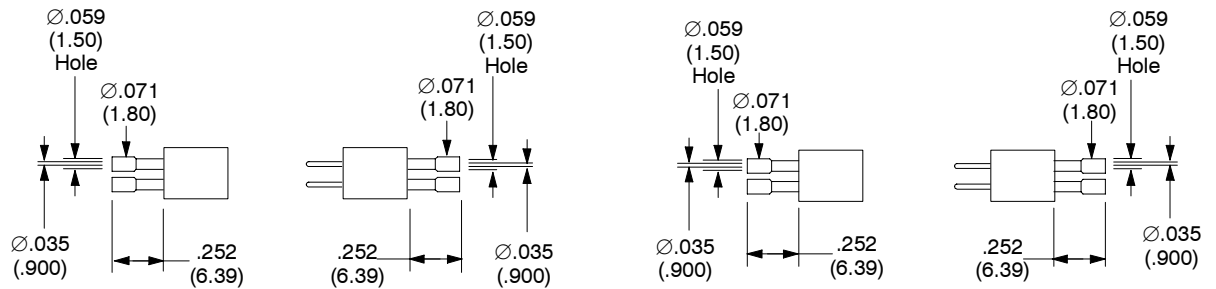
For .4 front removable version

Not Available in Plug



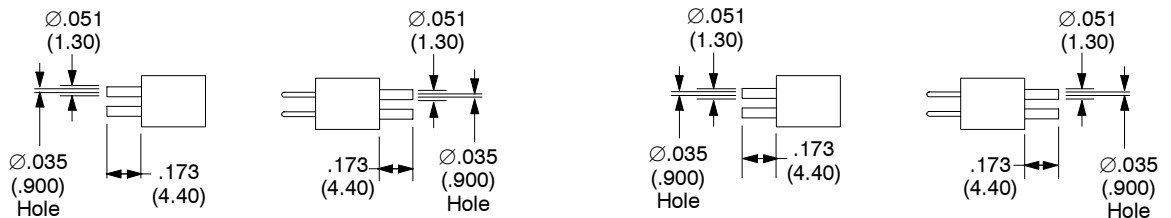
H2

Accepts 22, 24, & 26 AWG Wire Stripped Back .146 (3.7)



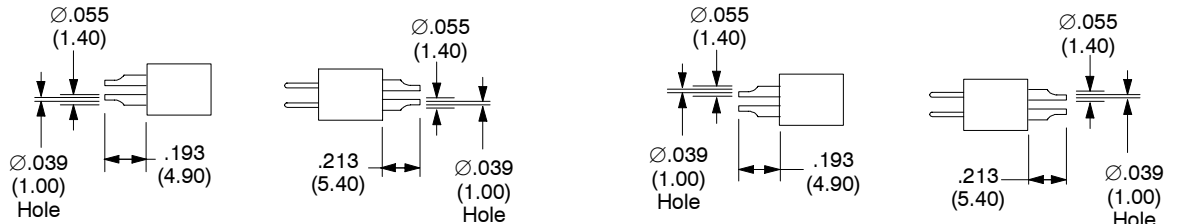
R

Accepts 22, 24 & 26 AWG Wire Stripped Back .173 (4.4)



S

Accepts up to 22 AWG Wire Stripped Back .126 (3.2)



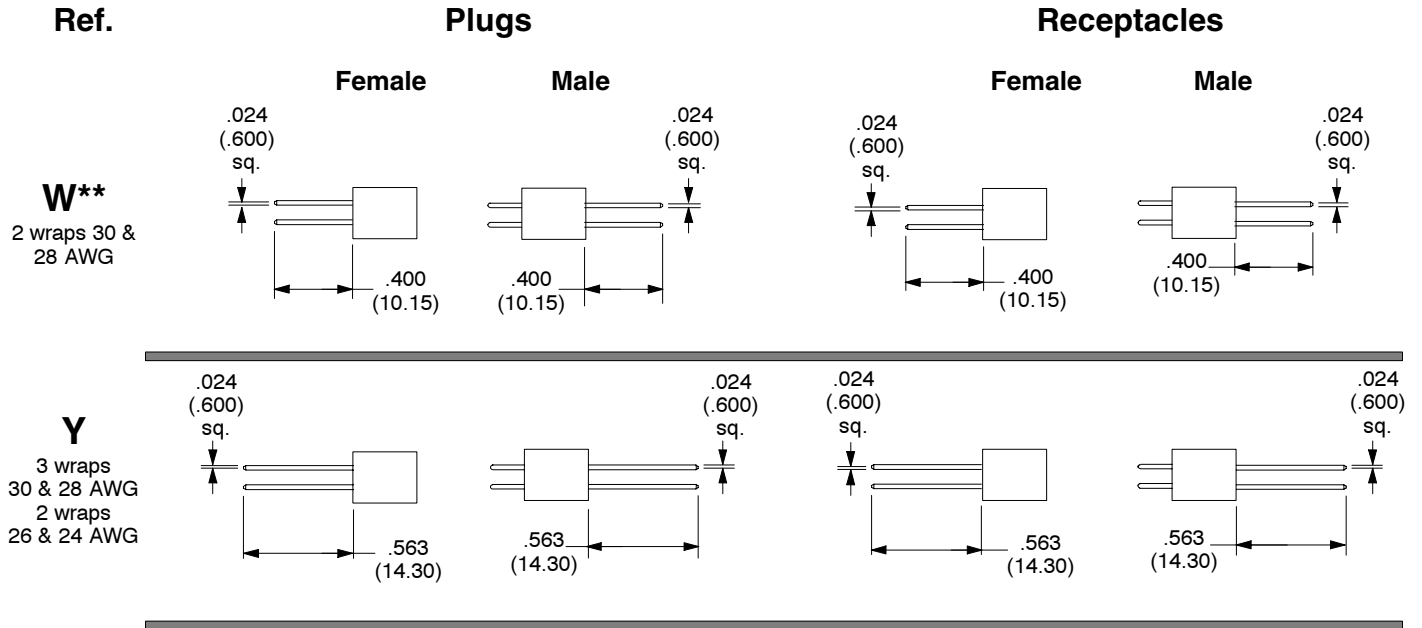
Solder cup orientation staggered for commercial parts. All the same direction for DOD-C-55302 parts

Notes

- 1) Crimp contacts will be shipped unmounted. When inserting contacts into the blocks/insulators be sure that the flats on the rear of the contact body are aligned with the flats in the insulator.
- 2) Dimensions in inches (mm)
- 3) All tails are $\pm .015$ (.4) long

Ref.	Terminal Style
D	Straight dip solder
H2 ¹	Double crimp (for insulation)
R ¹	Crimp
S	Solder cup

TERMINAL STYLES



Ref.	Terminal Style
W	Wire Wrap® (2 wraps)
Y	Wire Wrap® (3 wraps)

*Plating Reference	
Male Pins:	G = 10 µin gold (min) over Ni H = 50 µin gold (min) over Ni
Female Sockets:	AH = 50 µin gold (min) over Ni on mating surface, gold flash over Ni on termination

Notes

- 1) Dimensions in inches (mm)
- 2) All tails are ± .015 (.4) long
- 3) Contact for front Removable Version (.4)
- 4) Front Removable Contact for Standard Housing

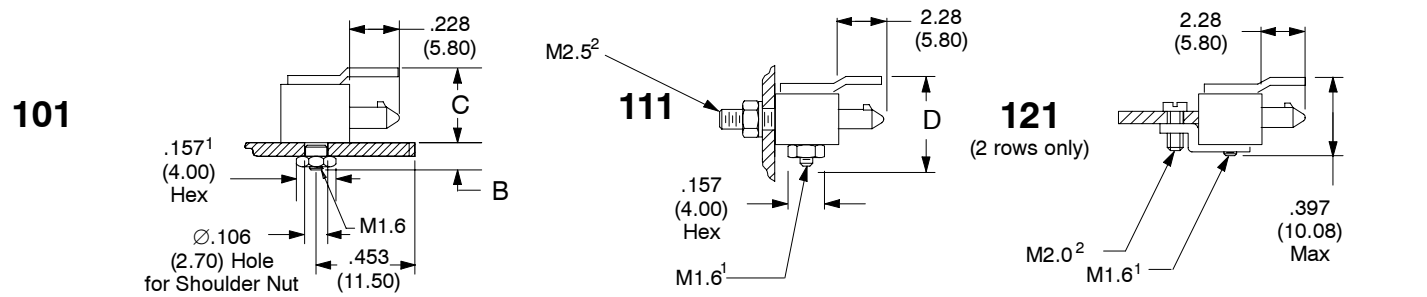
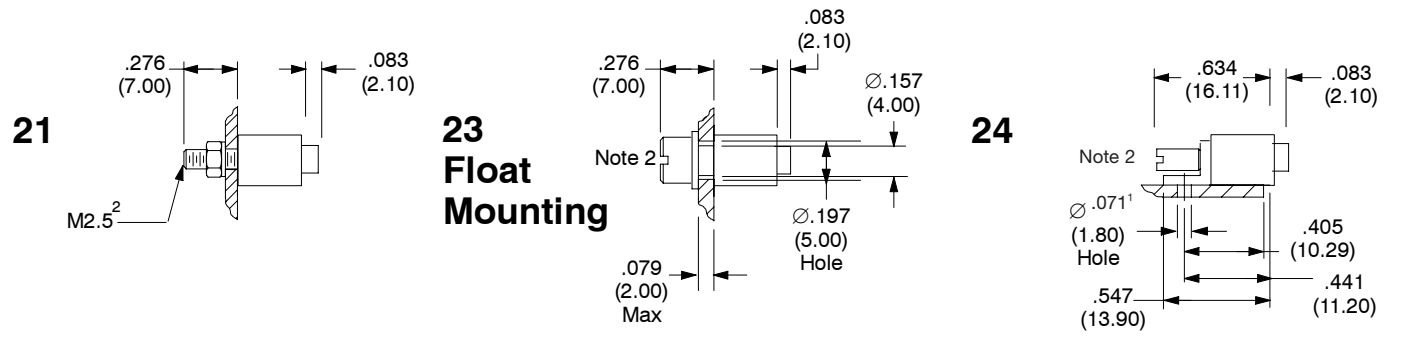
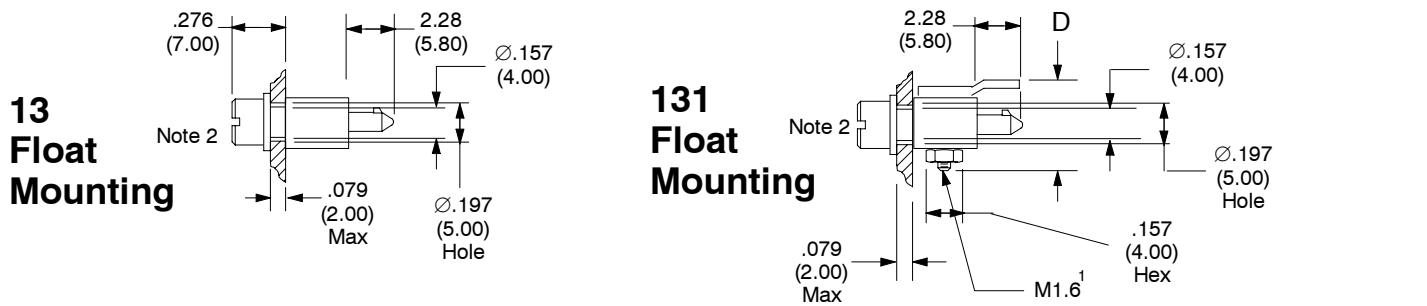
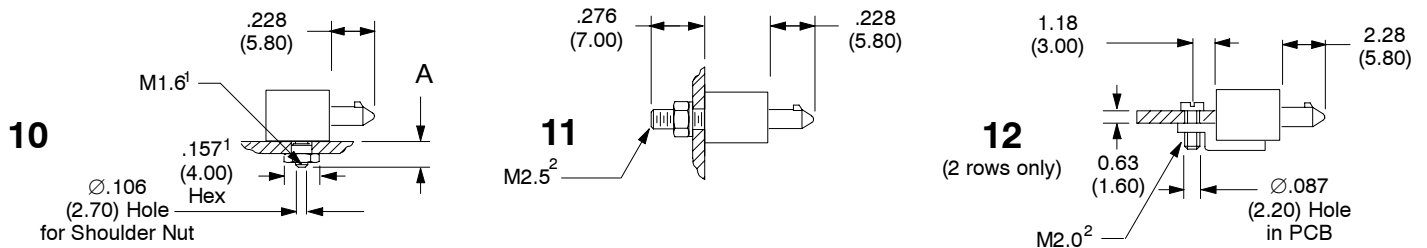
**Consult Factory for availability

KA SERIES REPLACEMENT CONTACTS

HYPERTRONICS PART NUMBER			
Ref.	Standard sockets	Standard pins	BeCu pins
B (row 1)	YSK006-028AH	YPN006-034*	YPN006-072H
" (row 2)	YSK006-029AH	YPN006-035*	YPN006-075H
" (row 3)	YSK006-030AH	YPN006-036*	YPN006-073H
C (row 1)	YSK006-013AH	YPN006-023*	YPN006-048H
" (row 2)	YSK006-006AH	YPN006-016*	YPN006-050H
" (row 3)	YSK006-014AH	YPN006-024*	YPN006-077H
D	YSK006-005AH	YPN006-015*	YPN006-107H
D ³	YSK006-027AH	--	--
FD ⁴	YSK006-274AH	YPN006-470*	YPN006-487H
H2	YSK006-009AH	YPN006-019*	--
R	YSK006-011AH	YPN006-021*	--
S	YSK006-010AH	YPN006-020*	--
W	YSK006-020AH	YPN006-039*	--
Y	YSK006-012AH	YPN006-022*	--

STANDARD MOUNTING STYLES (PLUGS)

PLUGS



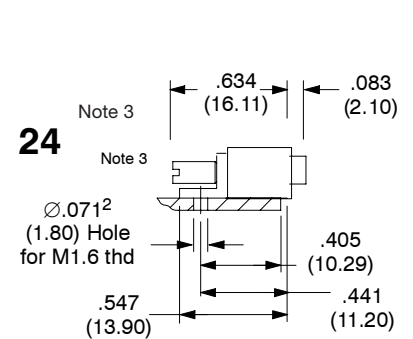
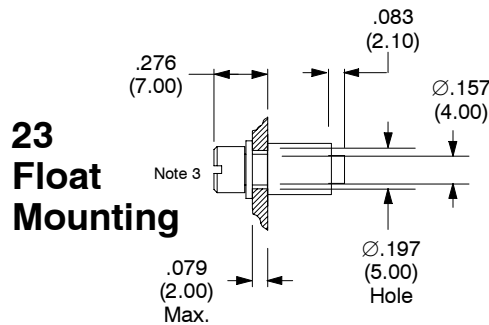
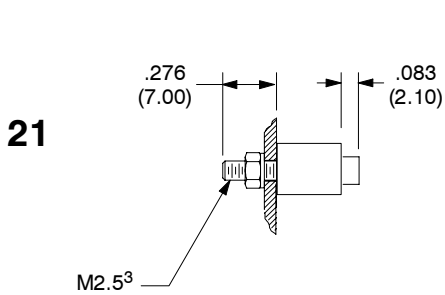
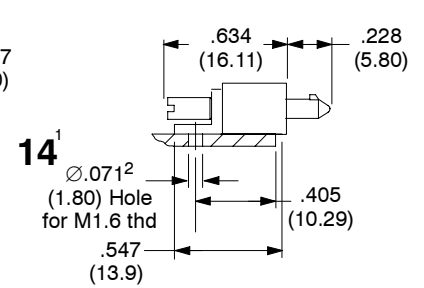
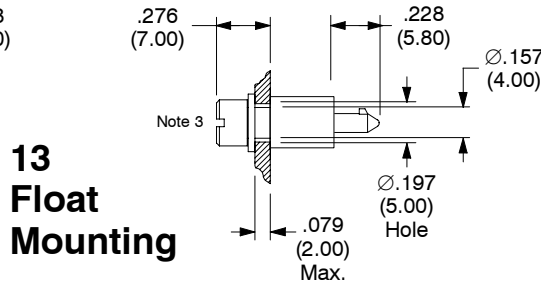
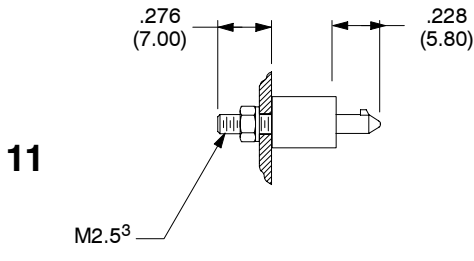
Notes

- 1) 15 oz-in [1.0 N·m (1.1 kg·cm)] torque.
- 2) 35.2 oz-in [2.4 N·m (2.5 kg·cm)] torque.
- 3) 52.3 oz-in [3.5 N·m (3.8 kg·cm)] torque.
- 4) Dimensions in inches (mm).

Terminal (Right Angle)	Dim. A			Dim. B			Dim. C		Dim. D	
	2 row	3 row (KA160)	3 row (Others)	2 row	3 row (KA160)	3 row (Others)	2 row	3 row	2 row	3 row
B	.191 (4.85)	.207 (5.25)	.220 (5.58)	.204 (5.18)	.205 (5.20)	.218 (5.53)	.343 (8.71)	.447 (11.36)	.507 (12.89)	.626 (15.89)
C	.124 (3.15)	.128 (3.25)	.141 (3.58)	.165 (4.18)	.126 (3.20)	.139 (3.53)	.343 (8.71)	.447 (11.36)	.468 (11.89)	.586 (14.89)

STANDARD MOUNTING STYLES (RECEPTACLES)

RECEPTACLES

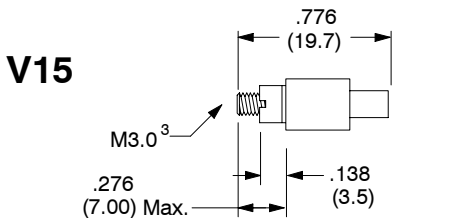
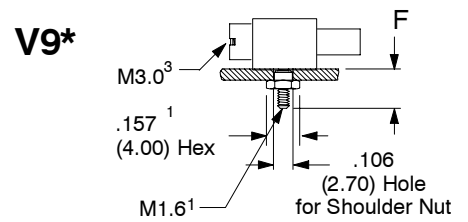
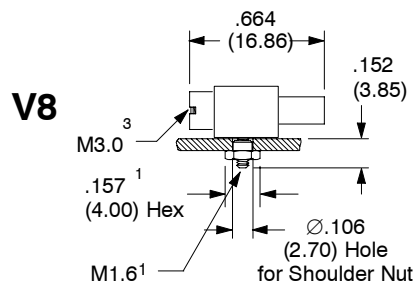
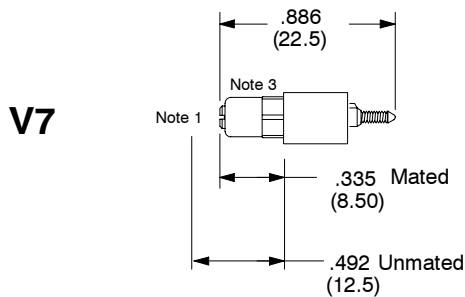
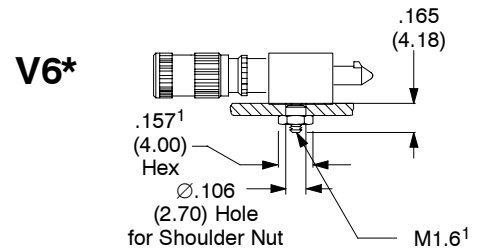
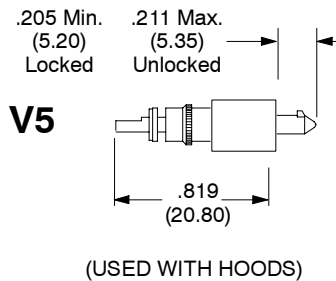
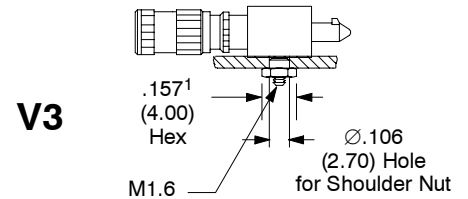
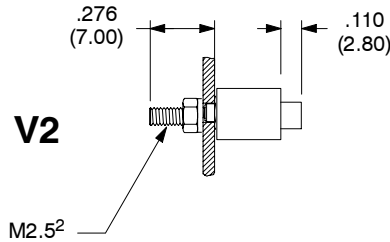
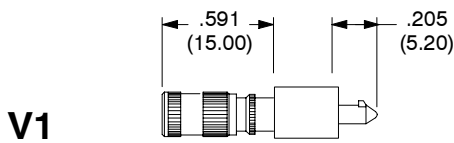


Notes

- 1) Mounting Dimensions same as Style 24.
- 2) 15 oz-in [.10 N·m (1.1 kg·cm)] torque.
- 3) 35.2 oz-in [.24 N·m (2.5 kg·cm)] torque.
- 4) 52.3 oz-in [.35 N·m (3.8 kg·cm)] torque.
- 5) Dimensions in inches (mm).

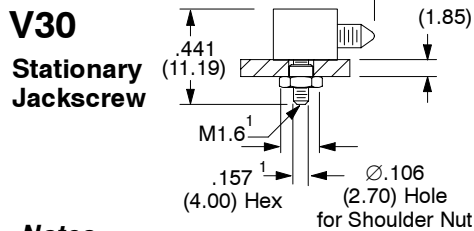
LOCKING MOUNTING STYLES

PLUGS



* For contacts No.:
62, 80.1, 98, 160 plugs

No. of Contacts	Dim. F
62, 80.1 & 98	.165 (4.18)
160	.136 (3.45)



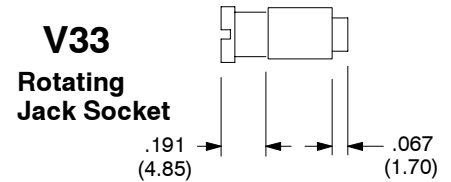
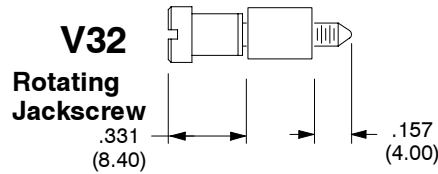
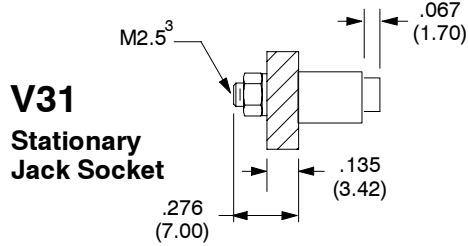
Type	Will Only Mate With	Locking Method
V1	V2, V4	Push, 1/4 Turn
V2	V1, V3, V5, V6	Push, 1/4 Turn
V3 & V6*	V2, V4	Push, 1/4 Turn
V4	V1, V3, V5, V6	Push, 1/4 Turn
V5	V2, V4	Push, 1/4 Turn
V7	V8, V15	Screw
V8 & V9*	V7	Screw
V15	V7	Screw
V30	V33	Screw
V31	V32	Screw
V32	V31, V33	Screw
V33	V30, V32	Screw

Notes

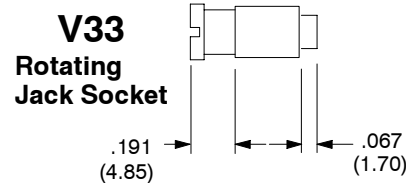
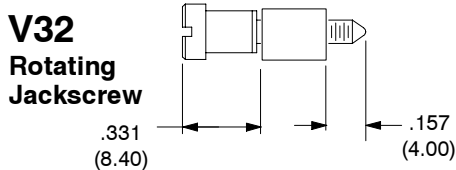
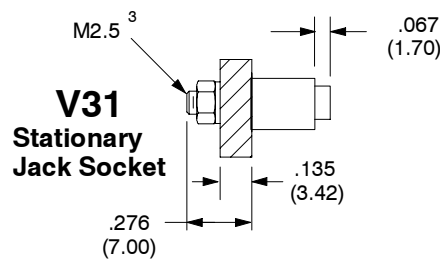
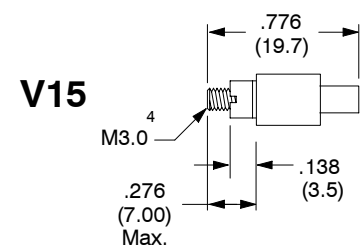
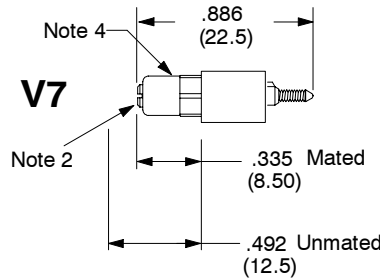
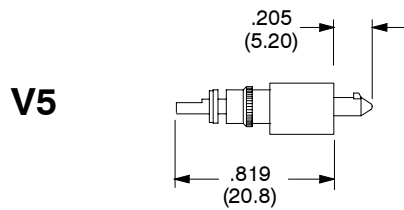
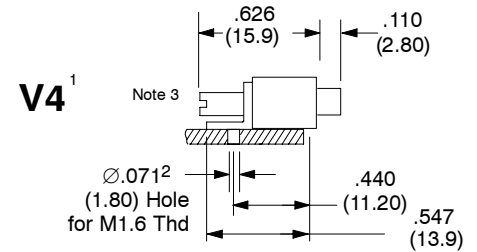
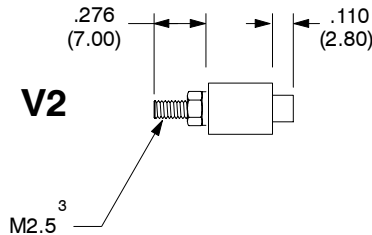
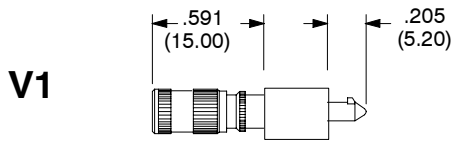
- 1) 15 oz.in [.10 N.m (1.1 kg.cm)] torque.
- 2) 35.2 oz.in [.24 N.m (2.5 kg.cm)] torque.
- 3) 52.3 oz.in [.35 N.m (3.8 kg.cm)] torque.
- 4) Dimensions in inches (mm).

LOCKING MOUNTING STYLES

PLUGS (cont.)



RECEPTACLES



Type	Will Only Mate With	Locking Method
V1	V2, V4	Push, 1/4 Turn
V2	V1, V3, V5, V6	Push, 1/4 Turn
V4	V1, V3, V5, V6	Push, 1/4 Turn
V5	V2, V4	Push, 1/4 Turn
V7	V8, V15	Screw
V15	V7	Screw
V31	V32	Screw
V32	V31, V33	Screw
V33	V30, V32	Screw

Notes

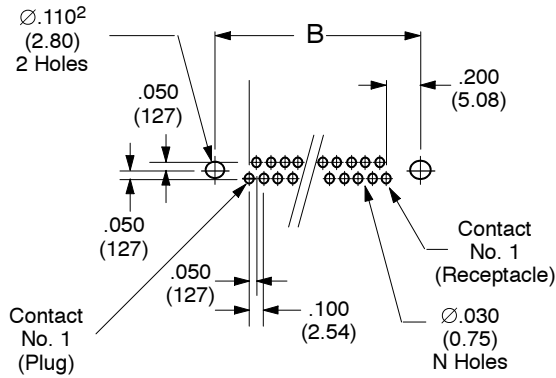
- 1) Mounting Dimensions same as Style 24
- 2) 15 oz.in [10 N.m (1.1 kg.cm)] torque.
- 3) 35.2 oz.in [24 N.m (2.5 kg.cm)] torque.
- 4) 52.3 oz.in [35 N.m (3.8 kg.cm)] torque.
- 5) Dimensions in inches (mm).

MOUNTING DIMENSIONS

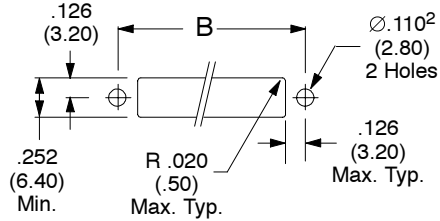
17, 29, 33, 41, 53 & 65 Contacts

P.C. Board Shown From Component Side Of Board

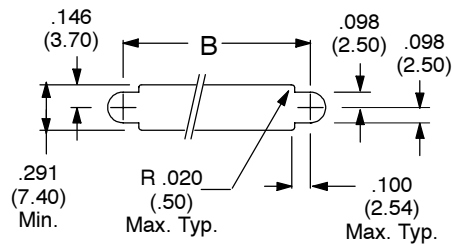
**Mother Board Application
Style 11, 21, V2, V15 & V31**



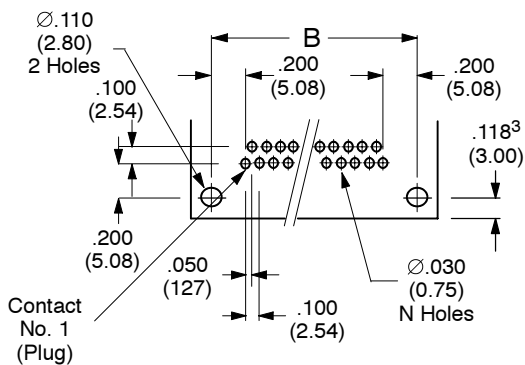
**Cutout for Panel Application
Fixed Mounting Styles 11, 21, V2, V15 & V31**



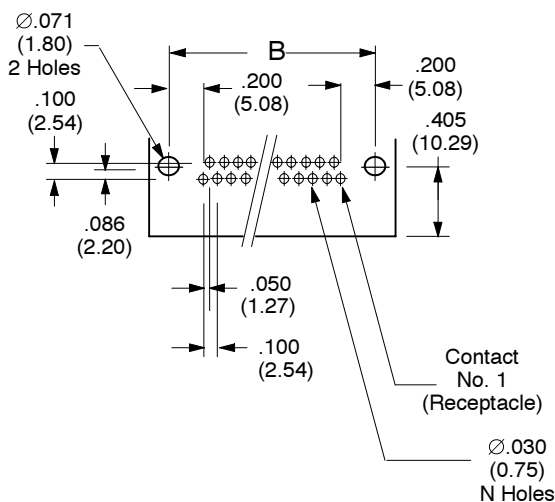
**Cutout for Panel Application
Float Mounting Styles 13 & 23**



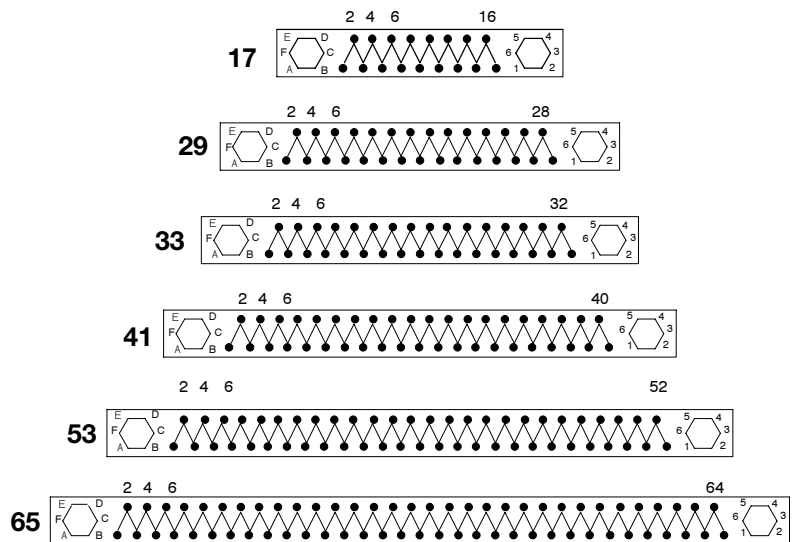
**Daughter Board Application
Style 10, 30, V3, V8 & V30**



**Daughter Board Application
Style 24 & V4**



**Contact Arrangement
Plug seen from mating side**



No. of Contacts	dim. B
17	1.200 (30.48)
29	1.800 (45.72)
33	2.0 (50.8)
41	2.400 (60.96)
53	3.000 (76.20)
65	3.600 (91.44)

Notes

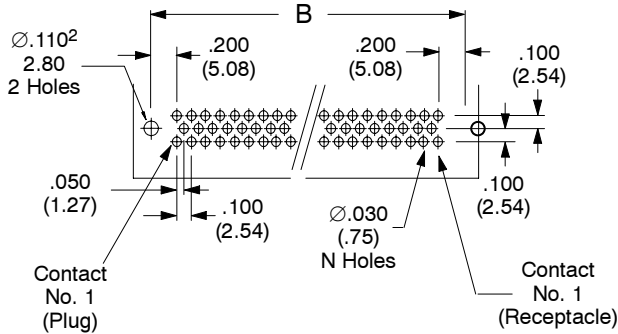
- 1) Dimensions in inches (mm).
- 2) For V15 locking mounting style, dimension is $.130 \pm .004$ ($3.2 \pm .1$) dia.
- 3) P.C. Board may be extended to 0.453 (11.50) max for use as a pin protector

MOUNTING DIMENSIONS

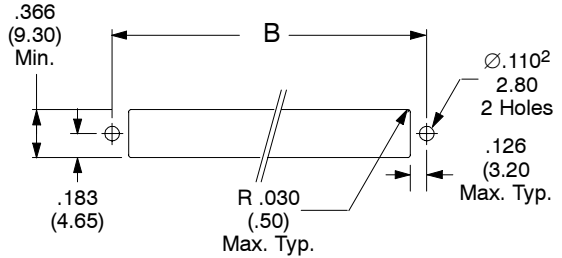
62, 80.1 & 98 Contacts

P.C. Board Shown From Component Side Of Board

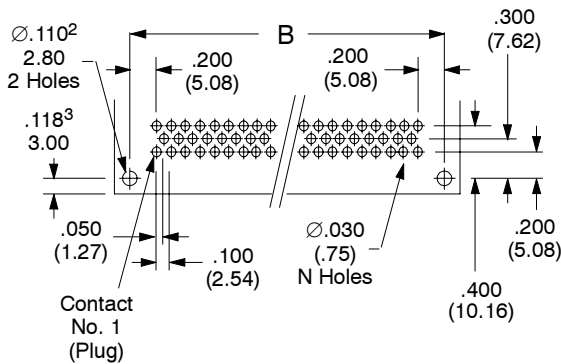
Mother Board Application
Style 11, 21, V2, V15 & V31



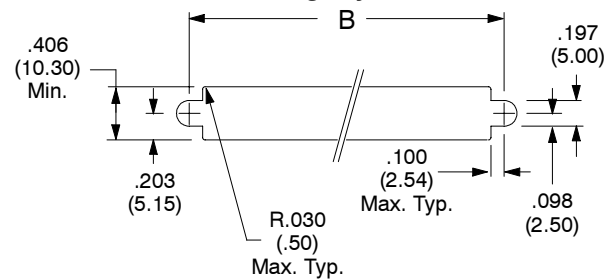
Cutout for Panel Application
Fixed Mounting Styles 11, 21, V2, V15 & V31



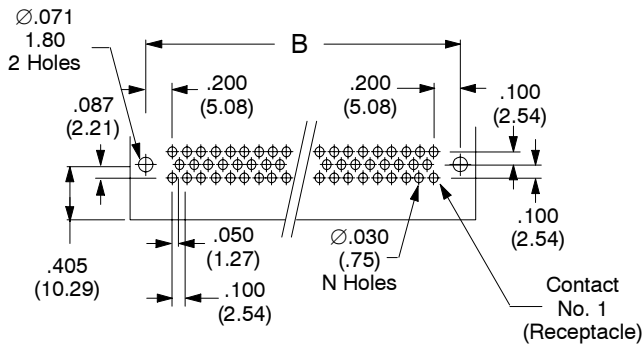
Daughter Board Application
Style 10, 30, V3, V8 & V30



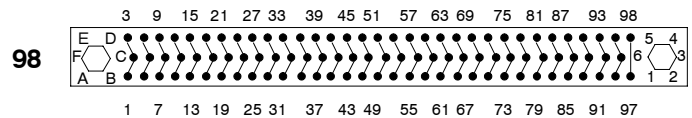
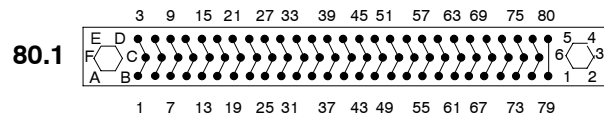
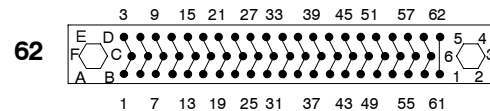
Cutout for Panel Application
Float Mounting Styles 13 & 23



Daughter Board Application
Style 24 & V4



Contact Arrangement
Plug seen from mating side



Notes

- 1) Dimensions in inches (mm).
- 2) For V15 locking mounting style, dimension is $.130 \pm .004$ ($3.2 \pm .1$) dia.
- 3) P.C. Board may be extended to 0.453 (11.50) max for use as pin protector.

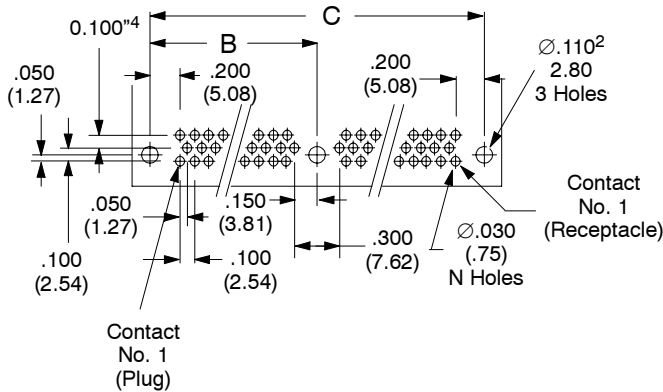
No. of Contacts	dim. B
62	2.400 (60.96)
98	3.600 (91.44)
80.1	3.000 (76.20)

MOUNTING DIMENSIONS

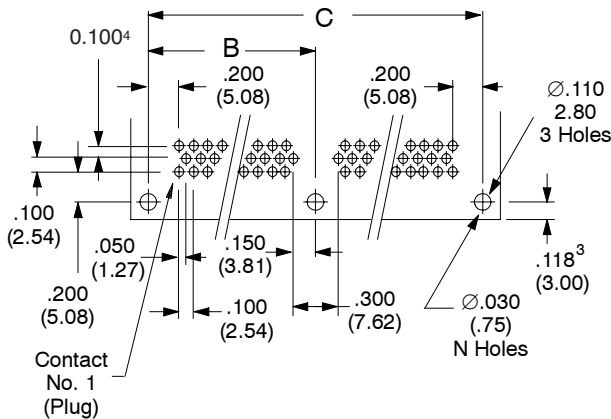
72, 84, 96, 120 & 126 Contacts

P.C. Board Shown From Component Side Of Board

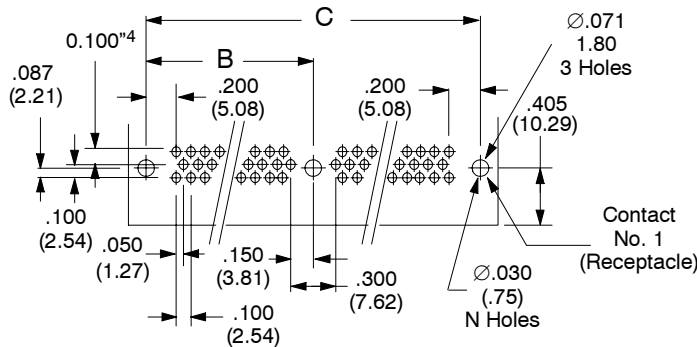
Mother Board Application Style 11, 21, V2, V15, V31



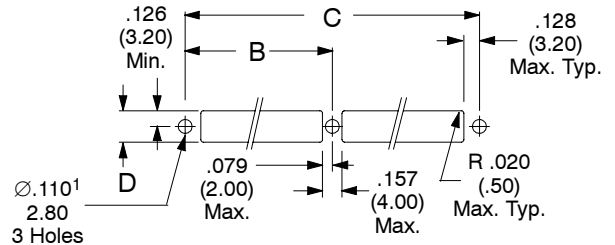
Daughter Board Application Style 10, 30, V3, V8 & V30



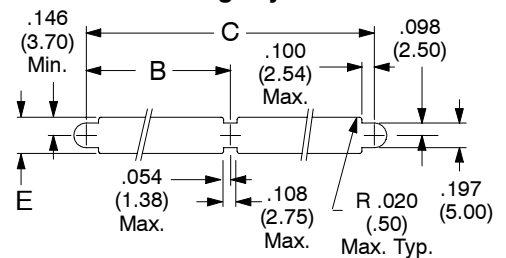
Daughter Board Application Style 24 & V4



Cutout for Panel Application Fixed Mounting Styles 11, 21, V2, V15 & V31

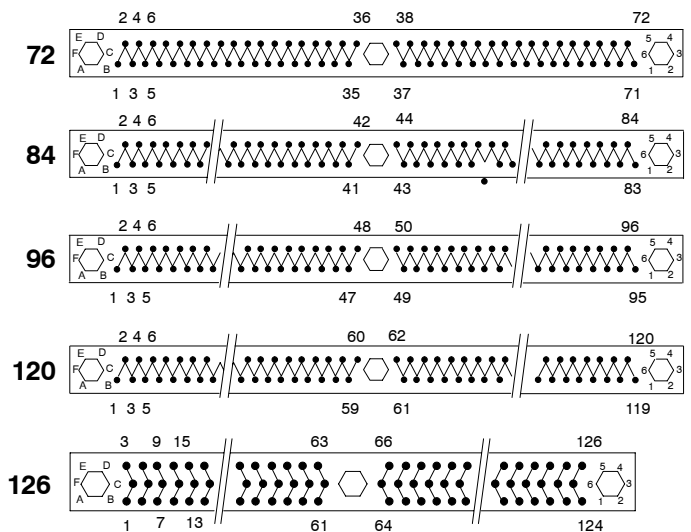


Cutout for Panel Application Float Mounting Styles 13 & 23



Contact Arrangement

Plug seen from mating side



No. of Contacts	B	C	D _{Min}	E _{Min}
72	2.100 (53.34)	4.200 (106.68)	.252 (6.40)	.291 (7.50)
84	2.400 (60.96)	4.800 (121.92)	.252 (6.40)	.291 (7.50)
96	2.700 (68.58)	5.400 (137.16)	.252 (6.40)	.291 (7.50)
120	3.300 (83.82)	6.600 (167.64)	.252 (6.40)	.291 (7.50)
126	2.400 (60.96)	4.800 (121.92)	.366 (9.30)	.406 (10.30)

Notes

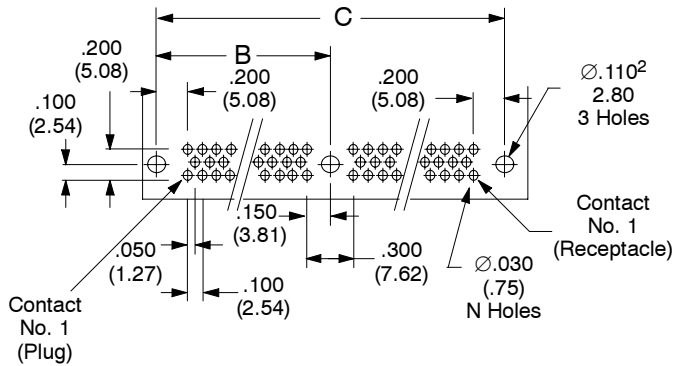
- 1) For V15 locking mounting style, dimension is $.130 \pm .004$ ($3.2 \pm .1$) dia.
- 2) Dimensions in inches (mm).
- 3) P.C. Board may be extended to 0.453 (11.50) max for use as pin protector.
- 4) Third row is for 126 pin version only.

MOUNTING DIMENSIONS

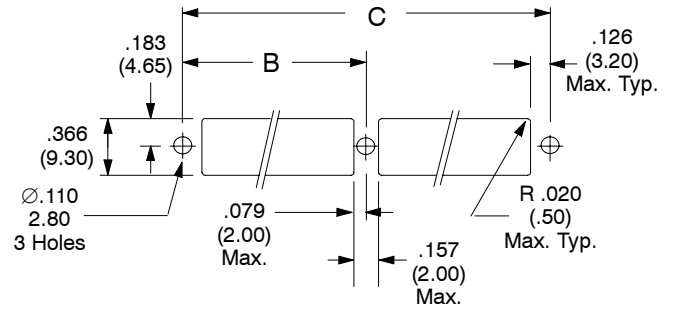
160, 160.4 Contacts

P.C. Board Shown From Component Side Of Board

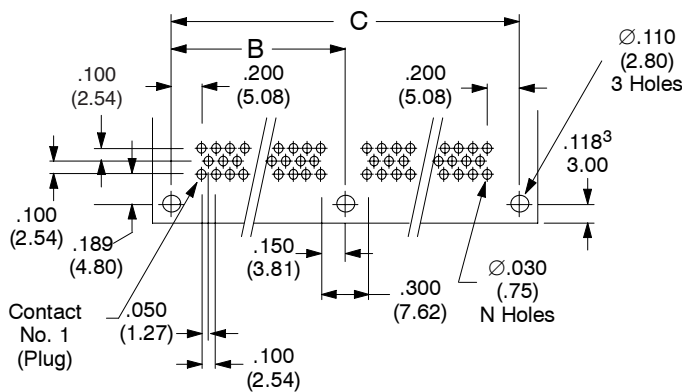
Mother Board Application Style 11, 21, V2, V15 & V31



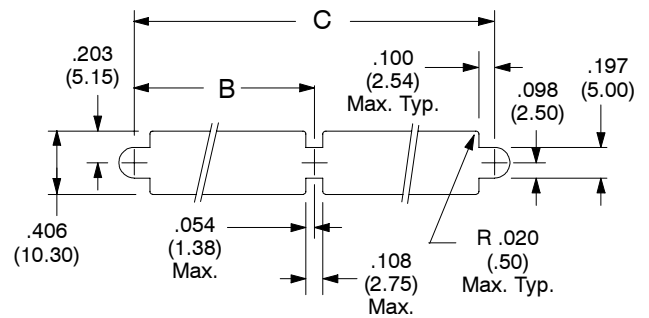
Cutout for Panel Application Fixed Mounting Styles 11, 21, V2, V15 & V31



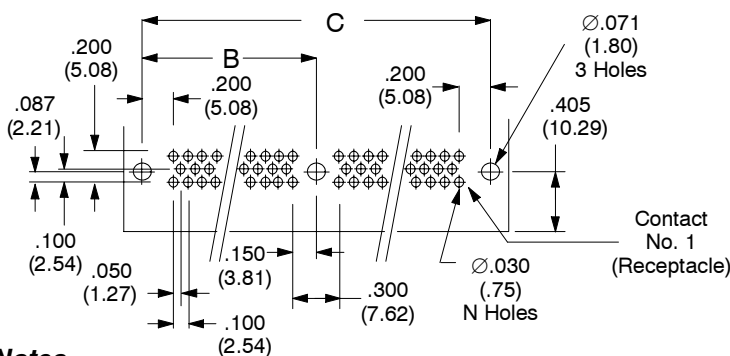
Daughter Board Application Style 10, 30, V3, V9 & V30



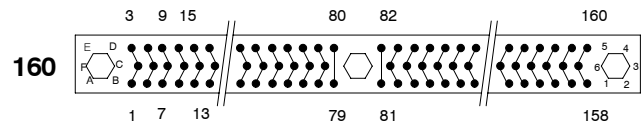
Cutout for Panel Application Float Mounting Styles 13 & 23



Daughter Board Application Style 24 & V4



Contact Arrangement Plug seen from mating side



No. of Contacts	Dim. B	Dim. C
160	2.950 (74.93)	5.900 (149.86)
160.4	2.950 (74.93)	5.900 (149.86)

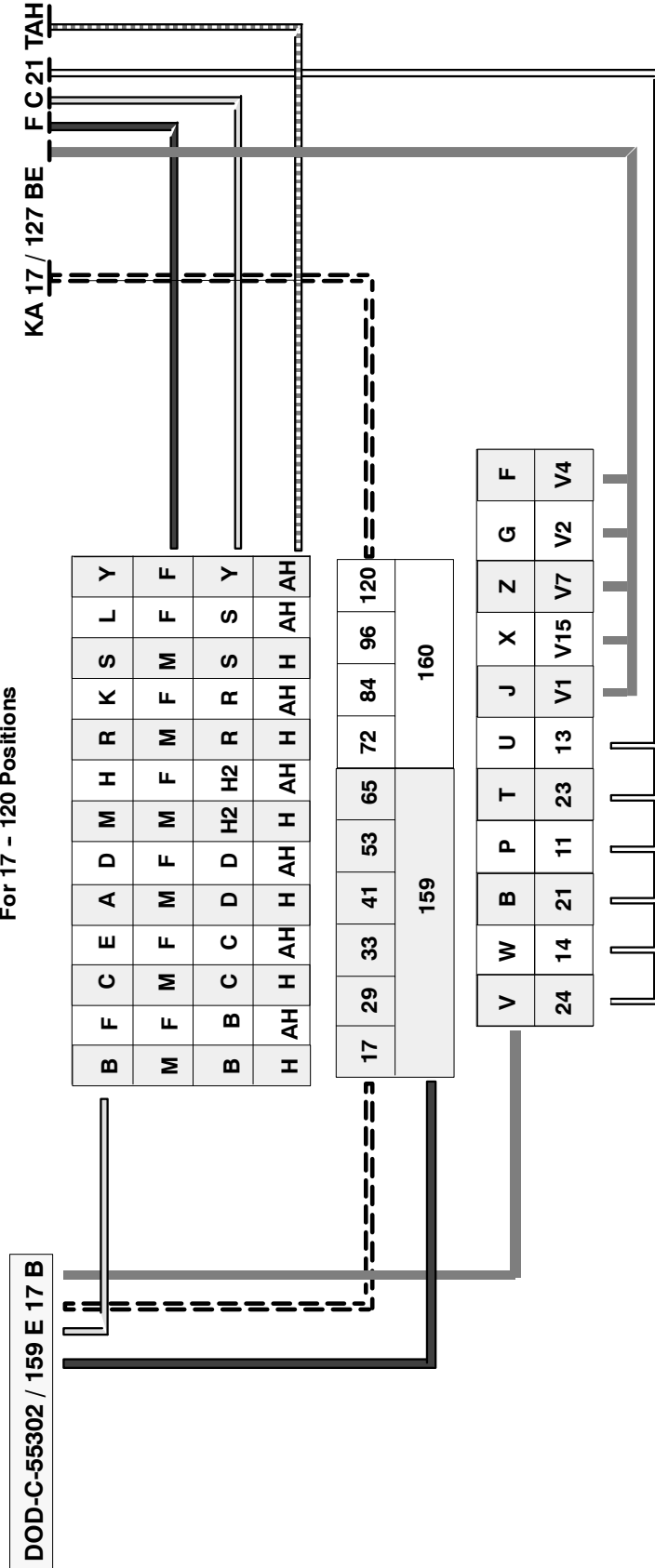
Notes

- Dimensions in inches (mm).
- For V15 locking mounting style, dimension is 0.130 ± 0.004 (3.20 ± 0.10) dia.
- P.C. Board may be extended to 0.453 (11.50) max for use as pin protector.

MILITARY PART NO. TO HYPERTRONICS PART NO. CROSS REFERENCE

Numbers Are "DOD" Instead of "MIL." Due to Metric Design

Slash Sheets 159 & 160
Receptacle 2 Row Insulator Styles
For 17 - 120 Positions



MILITARY PART NO. TO HYPERTRONICS PART NO. CROSS REFERENCE

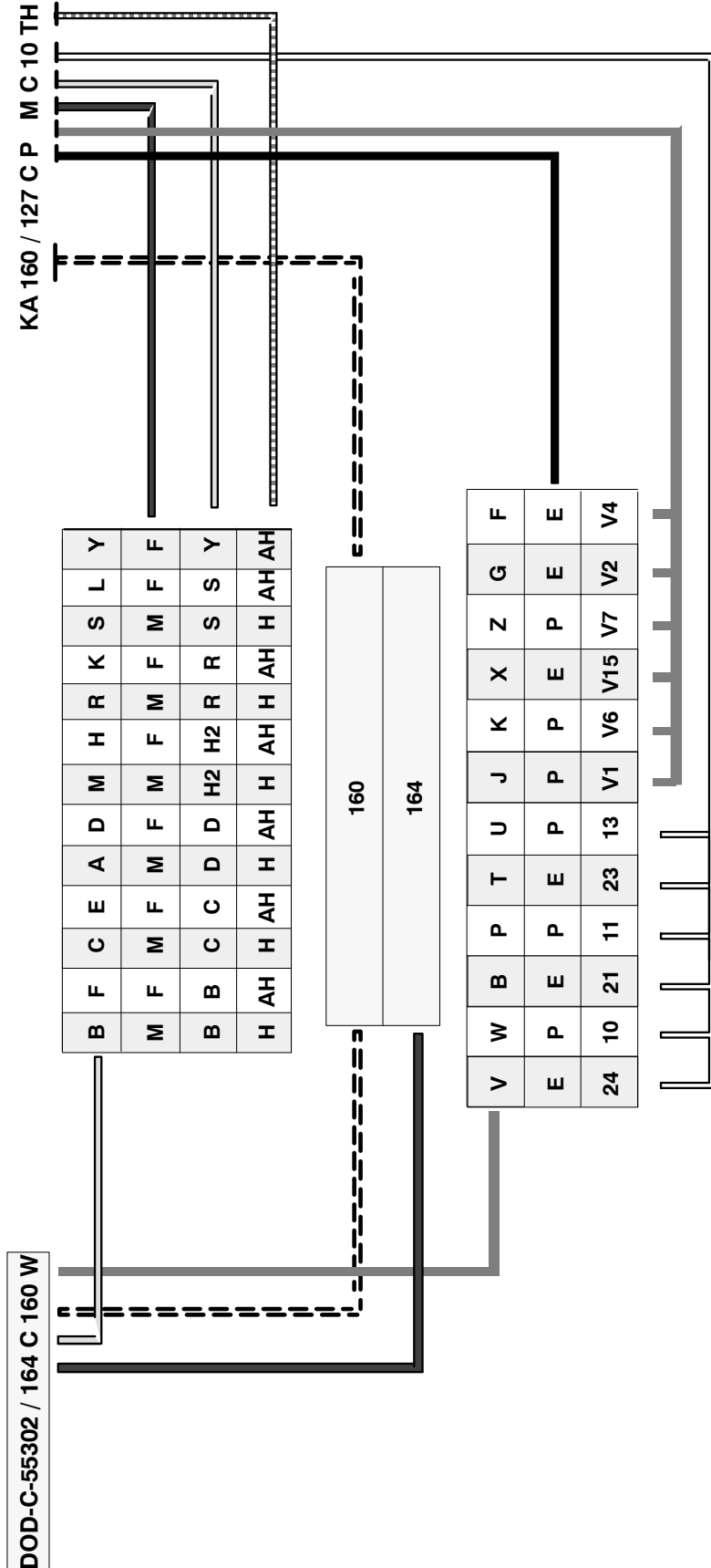
Numbers Are "DOD" Instead of "MIL" Due to Metric Design

Slash Sheets 161

**160 Position Split Shell Receptacles
The Following Models Are Approved**

- D55302/161 J 160 B
- D55302/161 G 160 B
- D55302/161 P 160 B
- D55302/161 Q 160 B
- KA 160.4/127CEFD21TAH or TABH
- KA 160.4/127CEFY21TAH
- KA 160.4/127CEMD21TH or TBH
- KA 160.4/127CEMY21TH

**Slash Sheets 164
160 Position Plug and Receptacle**



**ORDERING INFORMATION
For 2 & 3 Row Connectors**

KA 17 /127B E F D T-

Number of Contacts:
17, 29, 33, 41, 53, 62, 65, 72,
80.1, 84, 96, 98, 120, 126,
160

.1 = Must be used for 80 contact
version only.

.4 = Front Removable Receptacles⁹
(omit for standard receptacles)

Number of Rows:
B = 2 rows
C = 3 rows

Insulator:
P = Plug
E = Receptacle

Locking Mounting Hardware:¹
(omit for nonlocking hardware)

Receptacles: V1, V2, V4, V5⁵, V7, V15
Plugs: V1, V2, V3³, V4, V5⁵, V7, V8³,
V15, V6, V30, V31, V32 & V33 &
V9 (for 62, 80.1, 98, 160
contacts only),

Contact Gender:
M = Male
F = Female
N = No Contacts

Modifications:
(Omit if standard)
-040 male extender card
(unkeyed guides)
-041 female extender card
(mounting stud only)
-042 female extender card
(6 slotted female guide)
-135 BeCu pins

Plating: T, TH, TAH

Mounting Hardware:
00⁶, 10⁴, 11, 12, 13,
14⁸, 21, 23, 24, 101,
111, 131

Terminal Styles:

Omit for No Contacts
B = 90° Dip Solder
C = 90° Dip Solder
D = Straight Dip Solder
FD = Front Removable
D Contact
H2 = Double Crimp
R = Crimp⁷
S = Solder Cup
W = Wire Wrap (2 wraps)
Y = Wire Wrap (3 wraps)

ACCESSORIES

Extraction Tools:

For standard contacts S/DEM 1.0060

Crimp Tools:

Ref. R & H2 contacts—1 crimp
Manual crimp tool MS3198.1 or M22520/2-01 or AFM8
Positioner for contacts K547

Ref. H2 contacts
2 crimps in two operations
Manual crimp tool MS3198.1 or M22520/2-01 or AFM8
Positioner for contacts (wire) K547
Positioner for contacts (insulation) K640

2 crimps in operation
This requires a special tool. Please submit wire samples & consult factory for further information.
Crimping instructions doc# S50063

Other Accessories:

Insertion tool S/MONT 1.0060
Spanner wrench for receptacle with front
removable contacts T136
Spanner wrench for V8, V9, V10, & V15 T249

Replacement Contacts see page 3/6

Comb:

For positioning right angle dip solder
contact tails.

YCM017-001

Number of Contacts

Notes:

- 1) Important! See Mating Combination Chart for Intermatability.
- 2) Available with Ref. D (Straight Dip Solder) & Ref. Y (Wire Wrap) terminal styles only.
- 3) Not available in three row versions.
- 4) Available with plugs only.
- 5) In order to keep mating forces as low as possible, it is recommended that the connectors are fixtured during soldering contact engineering for details
- 6) Connectors with no hardware.
- 7) Crimp contacts will be shipped unmounted. When inserting contacts into the blocks/insulators, be sure that the two flats at the rear of the contact body are aligned with the flats in the insulator
- 8) Receptacles only.
- 9) Available in 160 contact version only