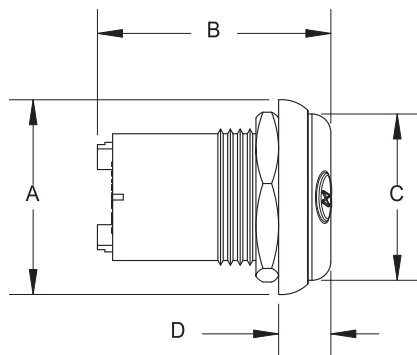




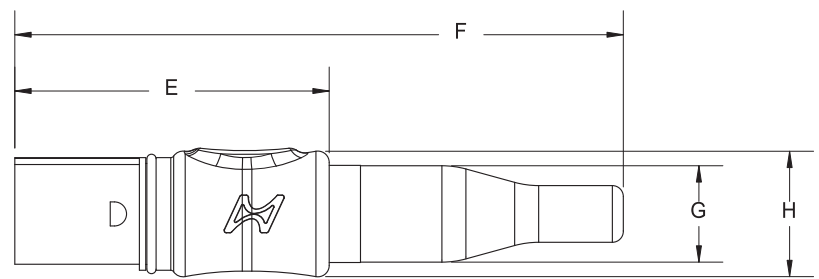
## HyperGrip® - Push/Pull Plastic Circular Connectors

- For medical and other high reliability applications
- Customer-keyable (6 positions)
- 12 (HG2), 19 (HG3), 33 (HG4), or 80 (HG6) contact positions
- Other contact configurations available upon request
- 1 Amp per contact
- Color coding
- Overmoldable plug design
- Front or rear panel mount receptacle design
- High-end engineering plastic components meet medical sterilizing and cleaning requirements
- Crimp and solder cup contact terminations available (printed circuit tails available on panel mount receptacle)
- Sealing option: IP67 (temporary immersion) when mated
- Meets fingerproofing requirements of UL544 and IEC60601

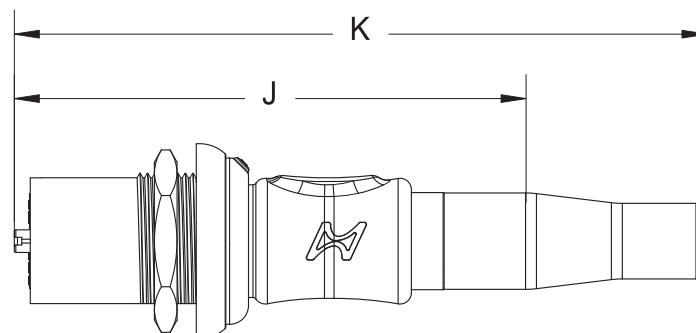
	HG2	HG3	HG4
A	Ø1.014 [25.76]	Ø1.172 [29.77]	Ø1.250 [31.77]
B	1.220 [30.98]	1.137 [28.87]	1.137 [28.87]
C	Ø0.866 [22.00]	Ø1.007 [25.59]	Ø1.090 [27.80]
D	0.272 [6.91]	0.272 [6.91]	0.272 [6.91]
E	1.637 [41.59]	1.637 [41.59]	1.637 [41.59]
F	3.265 [82.93]	3.500 [88.88]	3.500 [88.88]
G	Ø0.502 [12.75]	Ø0.650 [16.50]	Ø0.710 [18.15]
H	Ø0.656 [16.66]	Ø0.800 [20.36]	Ø0.880 [22.47]
J	2.700 [68.56]	2.890 [73.47]	2.890 [73.47]
K	3.724 [94.60]	3.880 [98.45]	3.880 [98.45]



**"E" Receptacle**

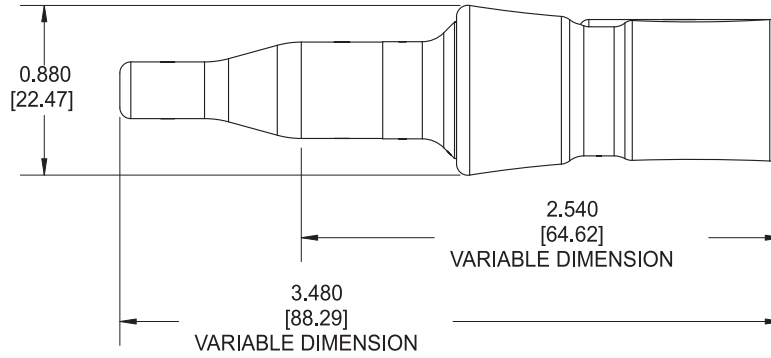


**"P" Plug**

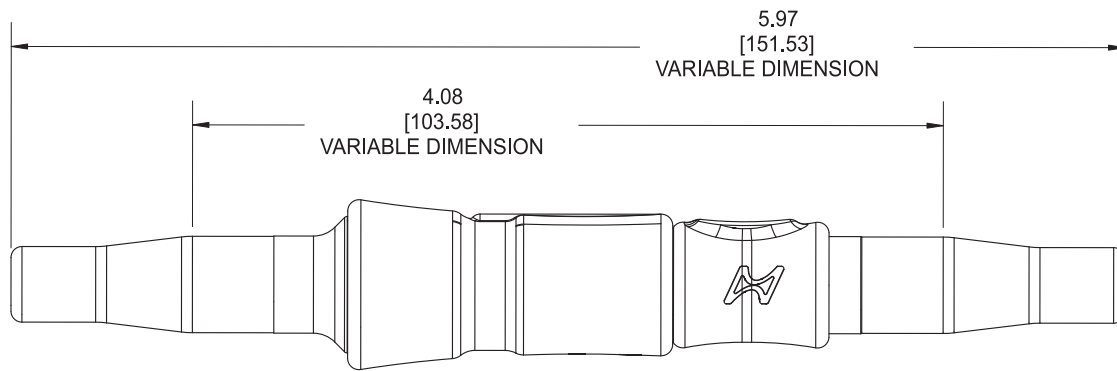


**Plug/Receptacle Mated with Strain Relief**

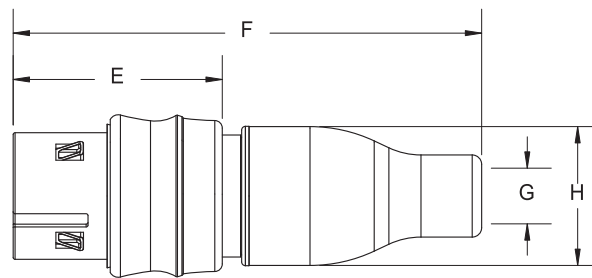
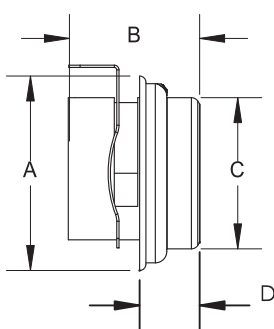
Dimensions are in inches [mm]



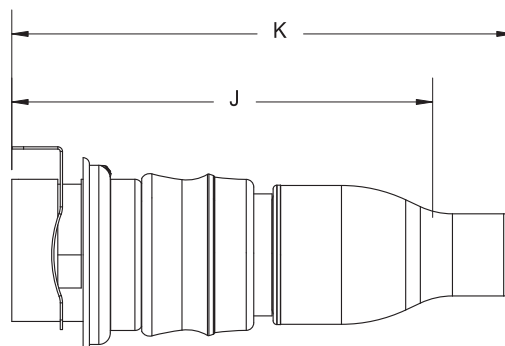
**“C” Cable Receptacle  
HG2 Only**



**Plug/Cable Receptacle Mated  
HG2 Only**



**HG6 Only**



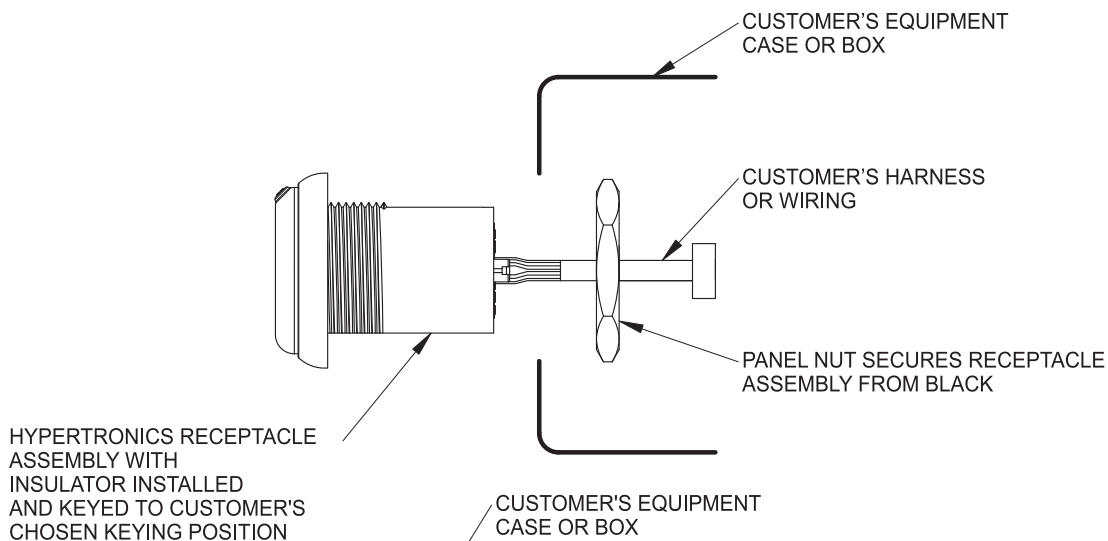
	<b>HG6</b>
<b>A</b>	Ø2.026 [51.45]
<b>B</b>	1.452 [36.87]
<b>C</b>	Ø1.789 [45.45]
<b>D</b>	0.669 [17.00]
<b>E</b>	2.224 [56.50]
<b>F</b>	4.950 [125.72]
<b>G</b>	Ø1.452 [36.88]
<b>H</b>	Ø1.467 [37.00]
<b>J</b>	4.371 [111.02]
<b>K</b>	5.265 [133.72]

**NOTE:**  
HG6 drawings are reduced to 50 percent and show optional strain relief.

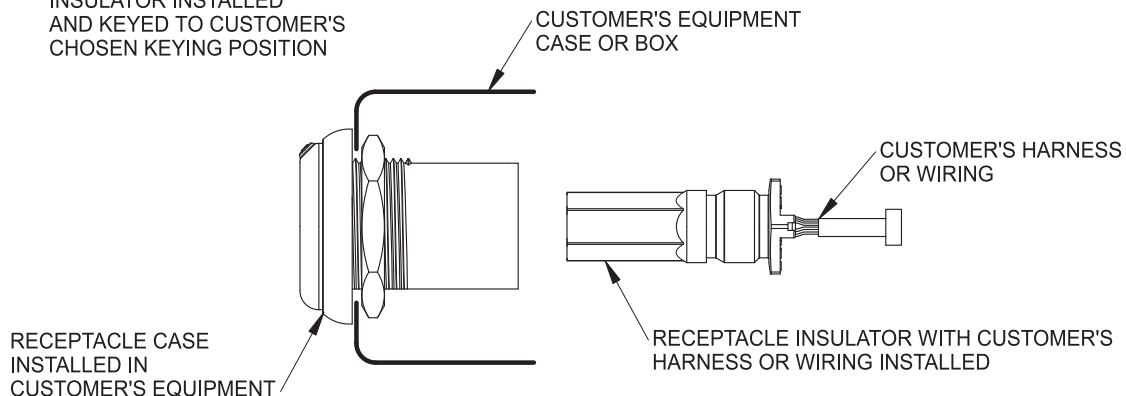
Dimensions are in inches [mm]

<b>General Specifications - HyperGrip</b>	
<b>Contact Diameter</b>	0.016 [0.40]
<b>Current Rating</b>	1 Amp
<b>Contact Resistance</b>	< 8 milliohms
<b>Contact Extraction Force Each</b>	0.5 – 1.6 oz.
<b>Contact Life Cycles</b>	Up to 100,000
<b>Plug Cycle Life</b>	Up to 20,000
<b>Breakdown Voltage Between Contacts</b>	> 1000V
<b>Dielectric Withstanding Voltage</b>	> 750V
<b>Contact Material and Plating</b>	<b>Sockets:</b> Beryllium copper wires and brass body components 50µin gold over nickel on wires, gold flash over nickel on termination <b>Pins:</b> Brass 50µin gold over nickel
<b>Insulation Resistance</b>	> 5 x 10 <sup>4</sup> megohms at 500 VDC
<b>Temperature Rating</b> Polyetherimide, LCP, Silicone	-40° C to 125° C Up to 185° C processing
<b>Sterilization</b>	Steam autoclave, Gamma, ETO

### Front Mounting Installation



### Rear Mounting Installation



Dimensions are in inches [mm]

## Ordering Information

**HG 2 P 4 3 G G 12 04 M R H**

**HyperGrip Plastic Circular**

**Size** Size: (2), (3), (4), (6)

**Type**  
 P = Plug  
 E = Receptacle/panel  
 C = Receptacle/cable  
 (C available on HG2 only)

**Sealing Option**  
 1 = Sealed  
 4 = Unsealed

**Strain Relief Size Options**  
 0 = No strain relief  
 3 = 3.00 - 4.50mm cable dia. range (HG2 only - optional)  
 4 = 4.50 - 6.50mm cable dia. range (HG2 only - standard)  
 5 = 7.00 - 9.00mm cable dia. range (HG3 only)  
 6 = 9.00 - 11.00mm cable dia. range (HG4 only)

**Outer Shell Color** G = LT gray

**Color Coding**  
 G = LT Gray (standard)  
 D = Blue  
 M\* = Brown  
 R = Red  
 V = Green  
 B\* = Black  
 Y = Yellow  
 W\* = White  
 N' = No color code

**Plating**  
 H = Pins: 50µin gold on contact surfaces, gold flash on terminations  
 AH = Sockets: 50µin gold on contact surfaces, gold flash on terminations (Omit for no contacts)

**Termination**  
 S = Solder cup (optional)  
 R = Crimp (standard)  
 D = Straight dip printed circuit (optional)  
 Panel receptacle only (Omit for no contacts)

**Contact Gender**  
 F = Female sockets (standard receptacle)  
 M = Male pins (standard plug)  
 N = No contacts

Size	HG2	HG3	HG4	HG6
<b>Contact Diameter</b>	0.40mm	0.40mm	0.40mm	0.40mm
<b>Positions</b>	12	19	33	80

\* Color is special order only.

Available Contacts	Wire Gauge (AWG)
<b>Female Receptacle - Standard</b>	
Crimp Socket (standard)	26 – 28
Solder Cup Socket (optional)	26 Max.
Printed Circuit Terminal Socket (optional)	N/A
<b>Male Plug - Standard</b>	
Crimp Pin (standard)	26 – 28
Solder Cup Pin (optional)	26 Max.
<b>Male Receptacle - Special Order Only</b>	
Crimp Pin	26 – 28
Solder Cup Pin	26 Max.
Printed Circuit Terminal Pin	N/A
<b>Female Plug - Special Order Only</b>	
Crimp Pin	26 – 28
Solder Cup Pin	26 Max.

Accessories	Part Numbers
Crimp Tool	AFM8 or M22520/2-01
Positioner	T2030
Insertion Tool	T1916
Receptacle Insulator Extraction Tool	T2057 (HG2) T2085-20 (HG3) T2085-34 (HG4) T2085-85 (HG6)

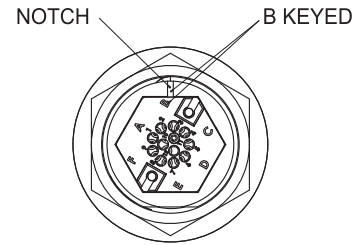
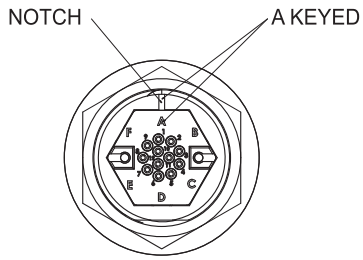
**NOTE:**  
 1) If N applies: Plug and cable receptacle - specify no strain relief.  
 Panel receptacle - specify unsealed (no panel color code).

Dimensions are in inches [mm]

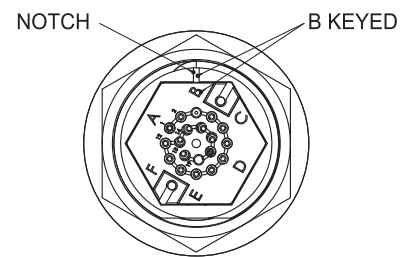
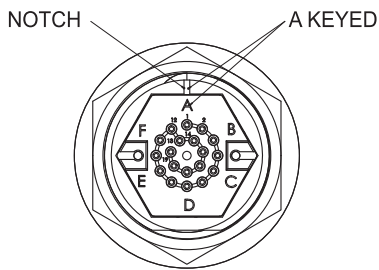
**Keying Position A**  
(Receptacle Wiring End)

**Keying Position B**  
(Receptacle Wiring End)

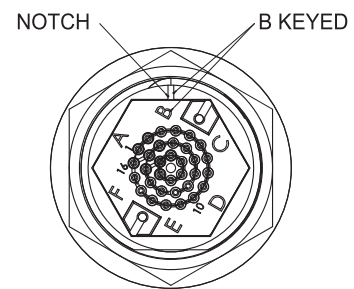
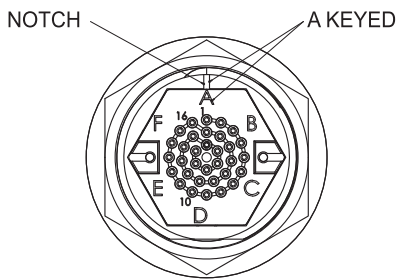
**HG2**



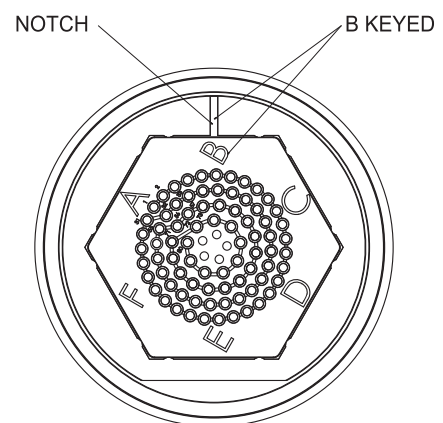
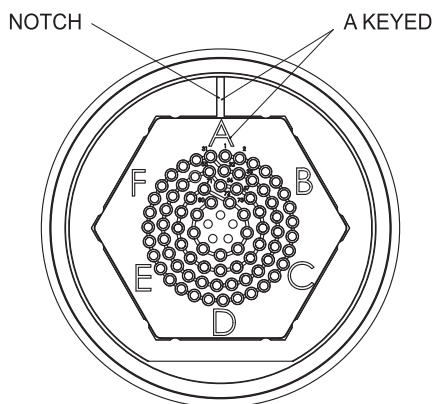
**HG3**



**HG4**



**HG6**



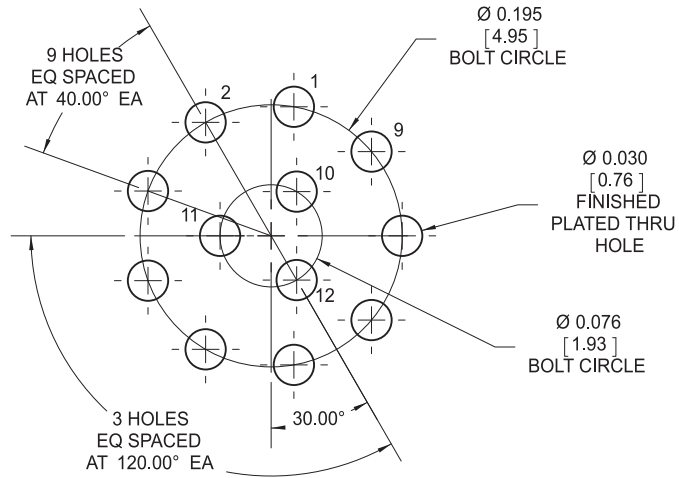
**NOTE:**  
6 different keying positions possible - A through F.

Dimensions are in inches [mm]

## HG2 Panel Receptacles

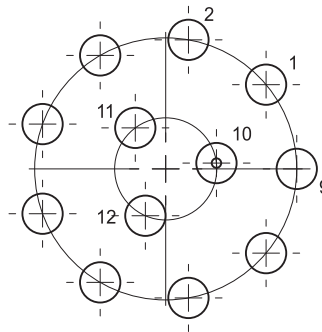
### 12 Position Printed Circuit Board Cutout

“A” Key (D Termination)



### 12 Position Printed Circuit Board Cutout

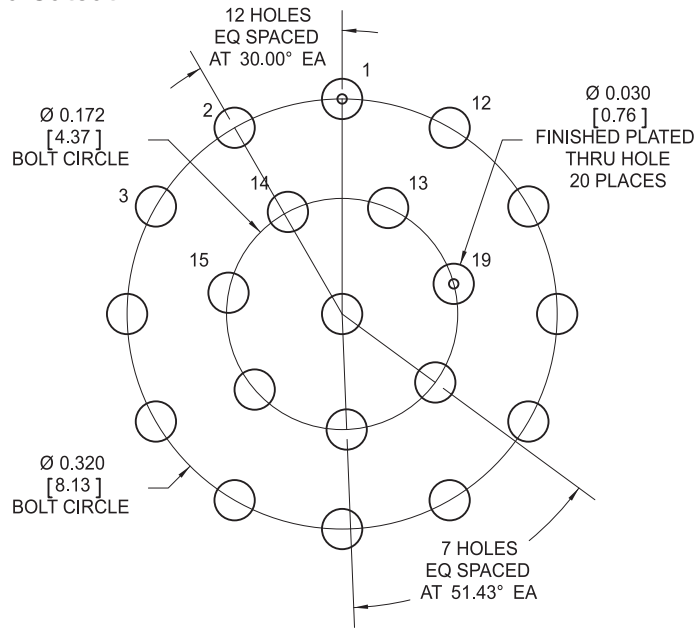
“B” Key (D Termination)



**HG3 Panel Receptacles**

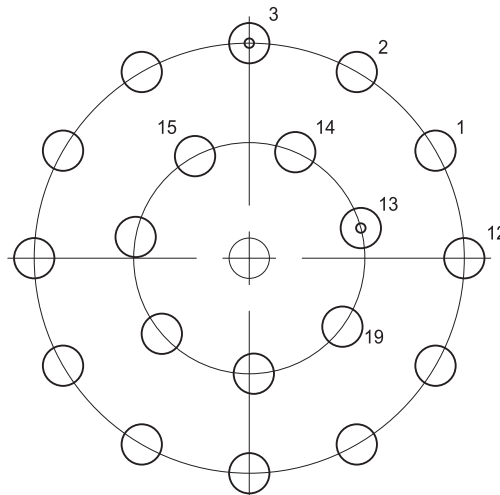
**19 Position Printed Circuit Board Cutout**

“A” Key (D Termination)



**19 Position Printed Circuit Board Cutout**

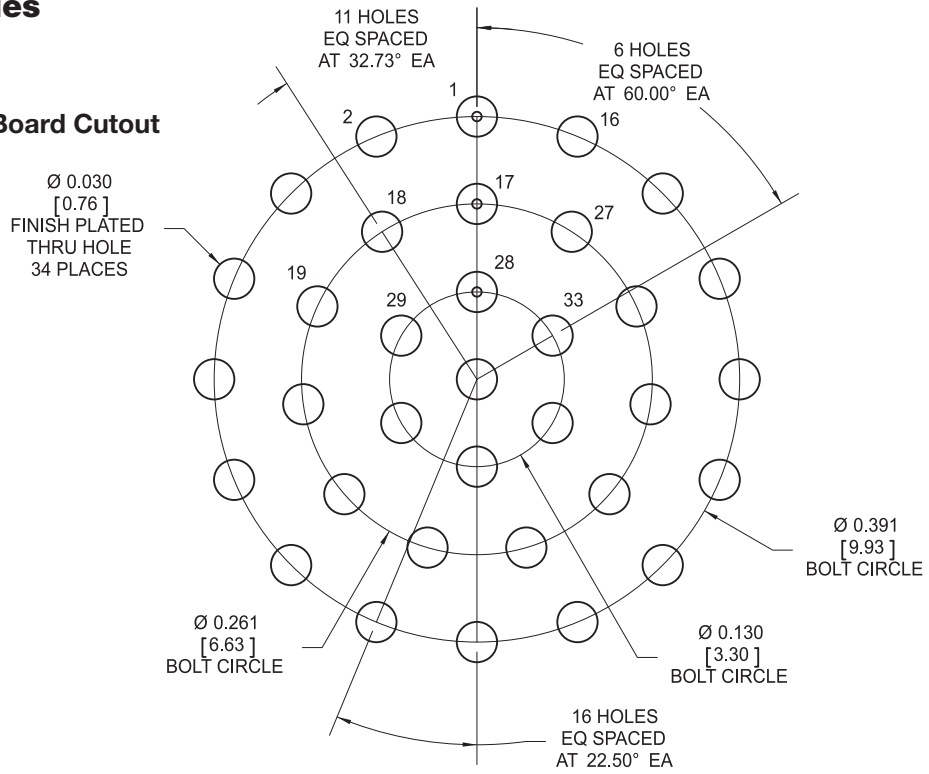
“B” Key (D Termination)



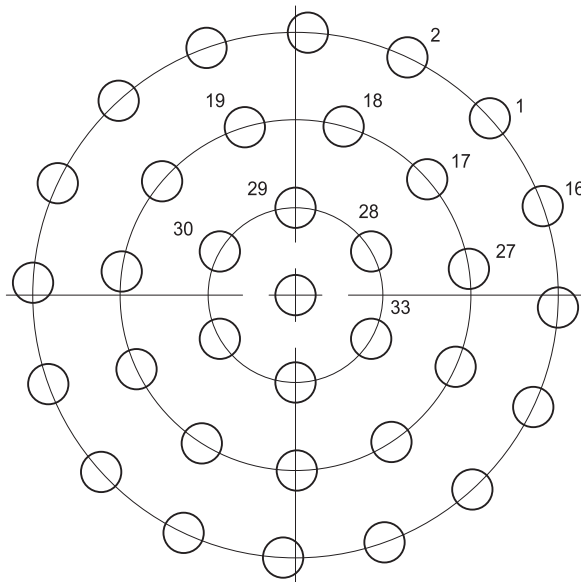
Dimensions are in inches [mm]

**HG4 Panel Receptacles**

**33 Position Printed Circuit Board Cutout**  
 "A" Key (D Termination)



**33 Position Printed Circuit Board Cutout**  
 "B" Key (D Termination)

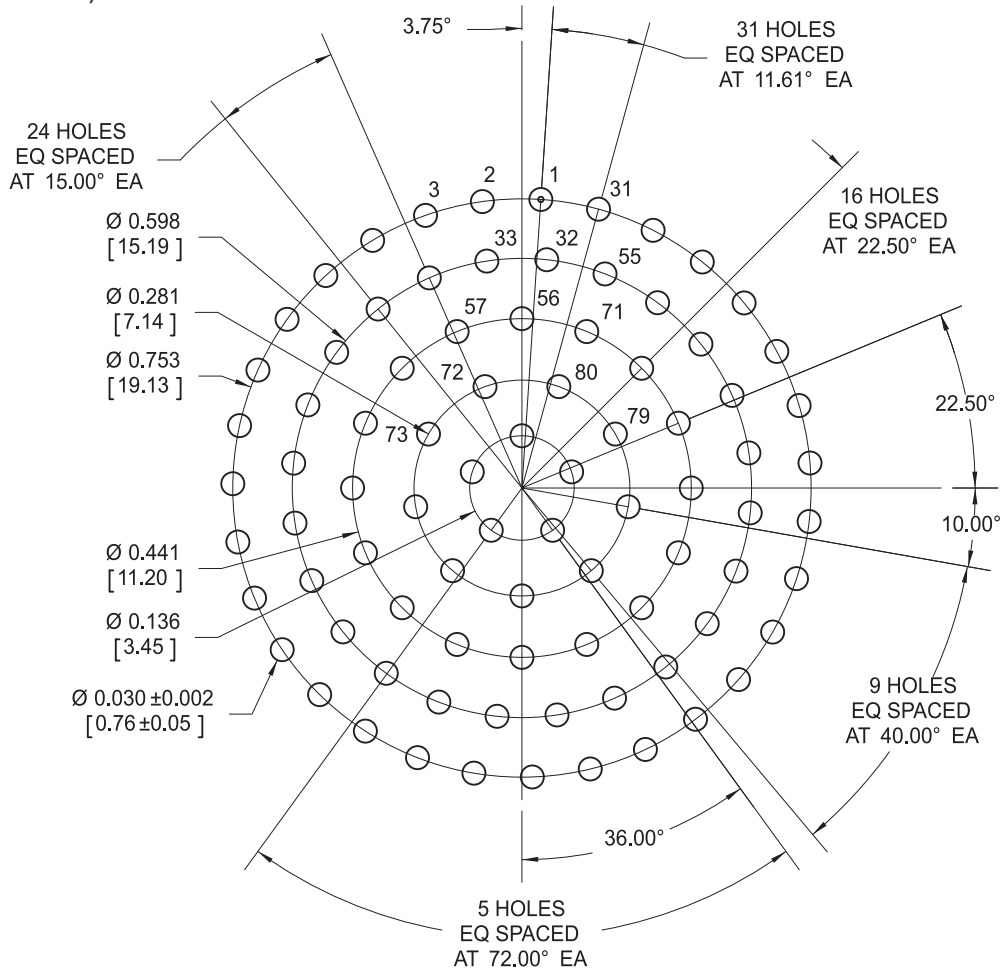




## HG6 Panel Receptacles

### 80 Position Printed Circuit Board Cutout

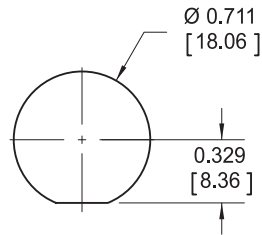
"A" Key (D Termination)



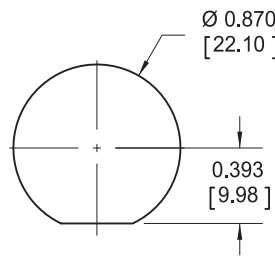
Dimensions are in inches [mm]

### Panel Cutouts

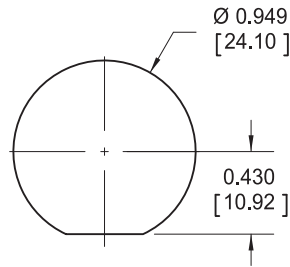
**HG2**



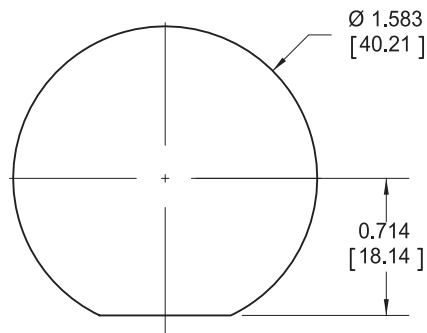
**HG3**



**HG4**



**HG6**



Dimensions are in inches [mm]