



HE1 系列工業用搖桿，具有多種安裝方式和符合人體工學的手柄可供選用，視選用的手柄，面板上方防護等級最高可達 IP67。即插即用安裝，可以作為標準的 USB 1.1 HID 相容設備操作，而無需安裝其他軟體。HE1 系列採用非接觸式霍爾效應的工作原理，沒有機械觸點，使用壽命長，且能精準的回歸中心點。

Mechanical (X & Y Axes)	
Angle of Movement	40° (20° each direction)
Expected Cycle Life	5 million
Centering	Spring return
Max. Vertical Load	75 lbf
Max. Horizontal Load	30 lbf *
Material	Glass / Mineral Filled Nylon

* Measured 1.75" Above Panel Surface

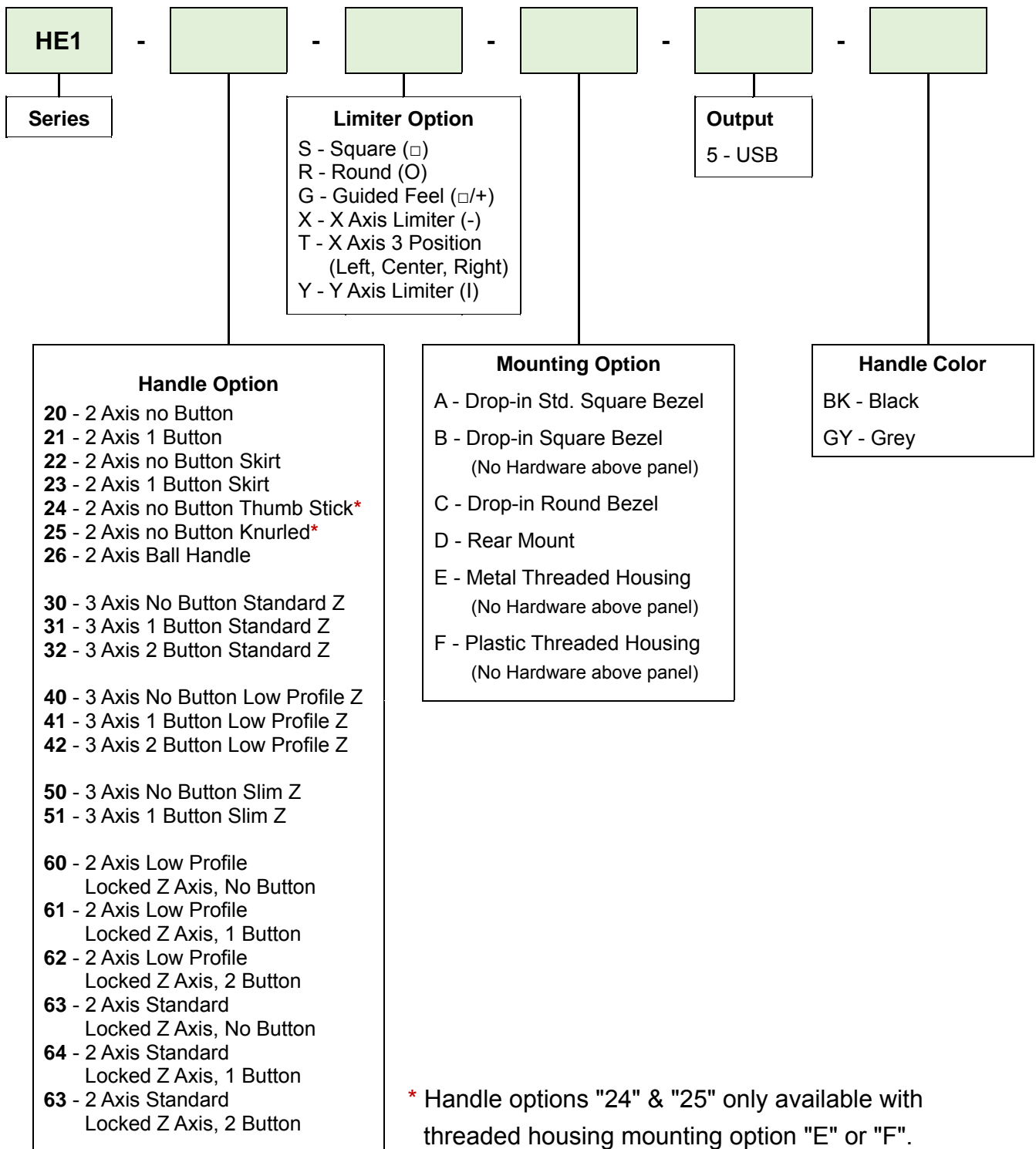
Mechanical (Z Axis)	
Angle	90° (45° each direction)
Centering	Spring return
Max. Applied Torque	14 lbf.in

** Handle IP Rating	
Handle Option	IP Rating
20	IP54
21	IP50
22	IP50
23	IP50
24	IP67
25	IP67
30	IP54
31	IP50
32	IP50
40	IP54
41	IP50
42	IP50
50	IP54
51	IP50

Environmental	
Operating Temperature	-20°C to 60°C
Storage Temperature	-40°C to 70°C
IP sealing Above Flange	Up to IP67**
EMC Immunity Level	EN61000-4-3 *Compliance to 30A/m
EMC Emissions Level	EN61000-6-3
ESD Immunity Level	EN61000-4-2
Vibration Testing	Per SAE J1455 Section 4.9 & MIL-STD810G 514.6
Mechanical Shock	Per SAE J1455 Section 4.10 & MIL-STD-202G

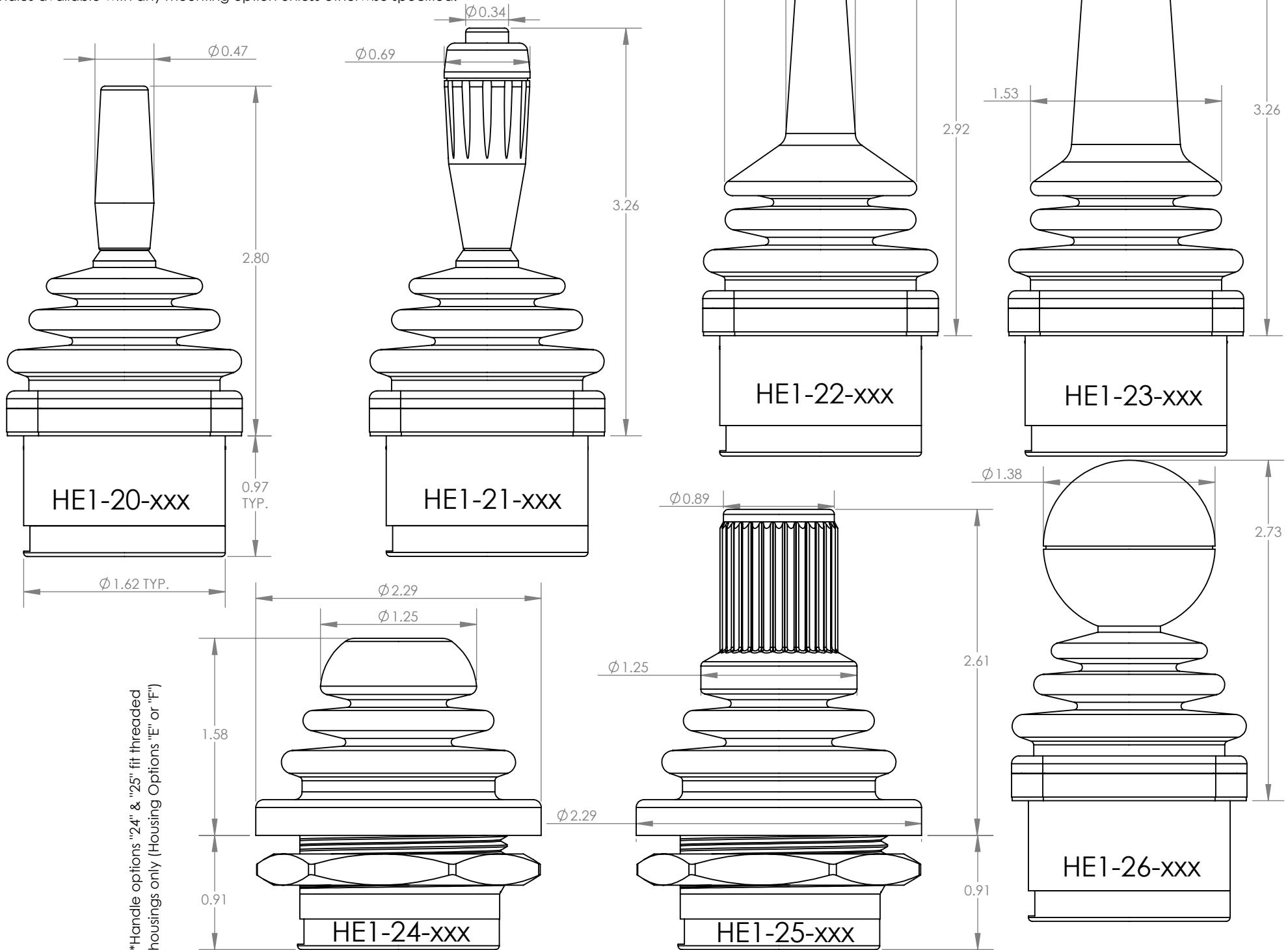
* Extended Testing Levels

Electrical Specification	
Resolution	10 Bit
Supply Voltage	5Vdc via USB Cable
System Support	Windows (All), OSX, Linux
Supported Protocols	USB HID 1.1 game controller Standard Directs HID drivers Joystick: 2 or 3 HID Axes Pushbuttons: Up to 2 HID Button
Cable	USB Male Type A to Right Angle Mini B 1.5m Length (Mini B to Joystick)



HE1 Series - Handle Options (2 Axis)

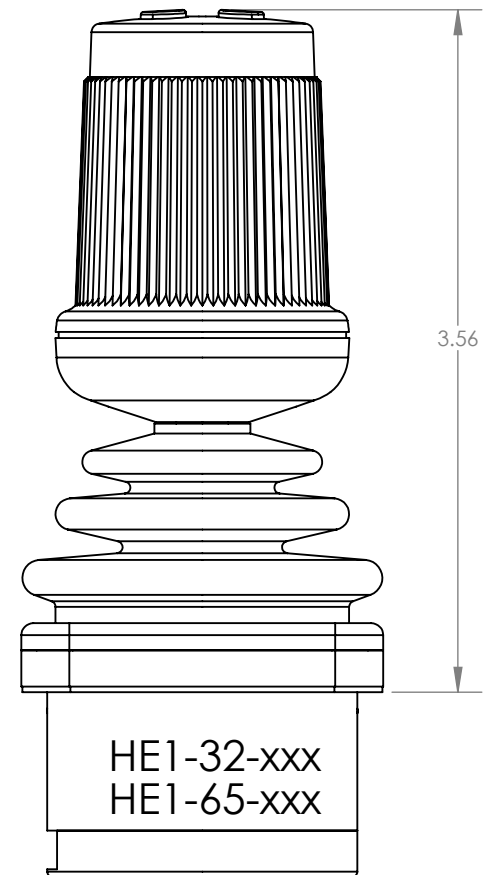
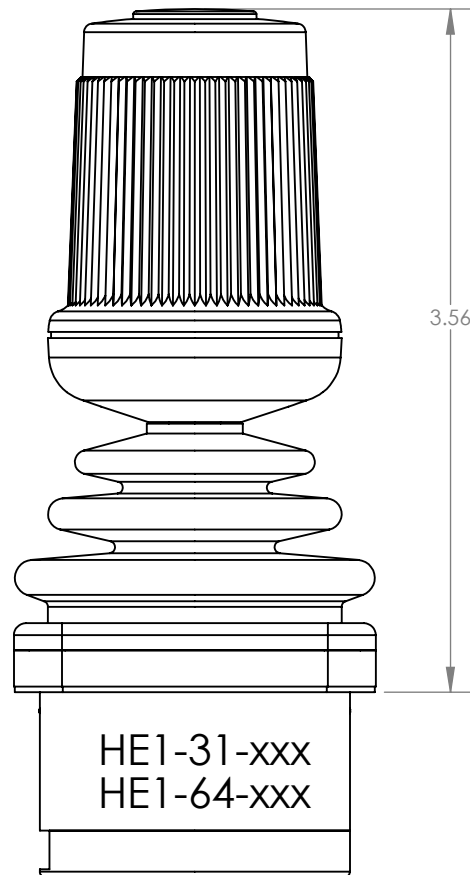
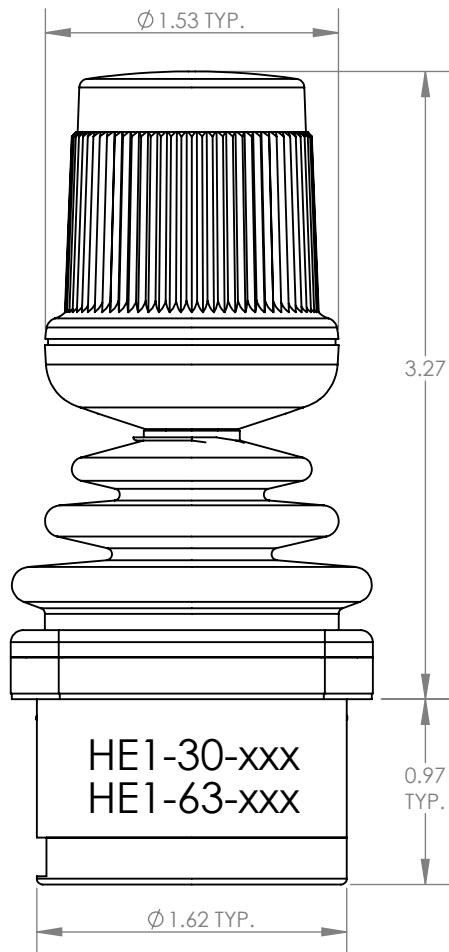
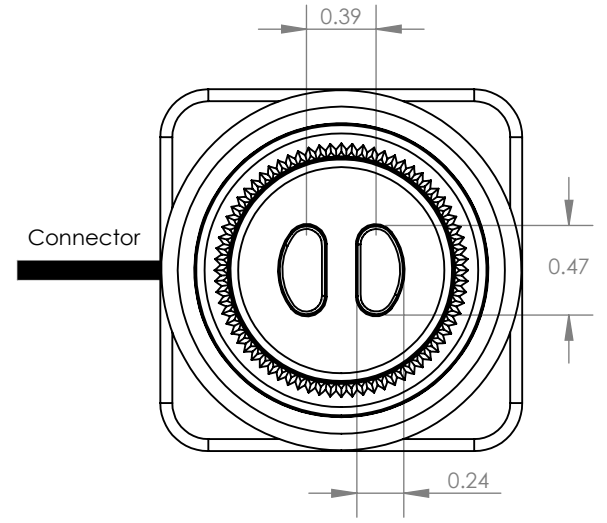
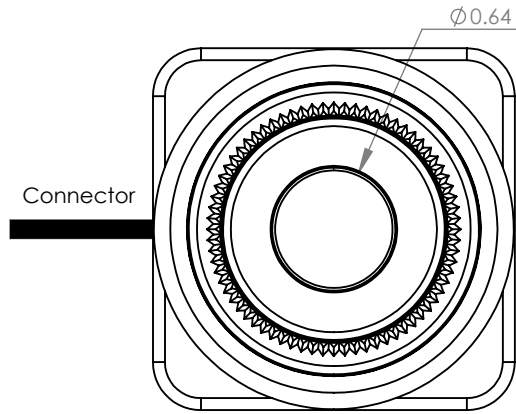
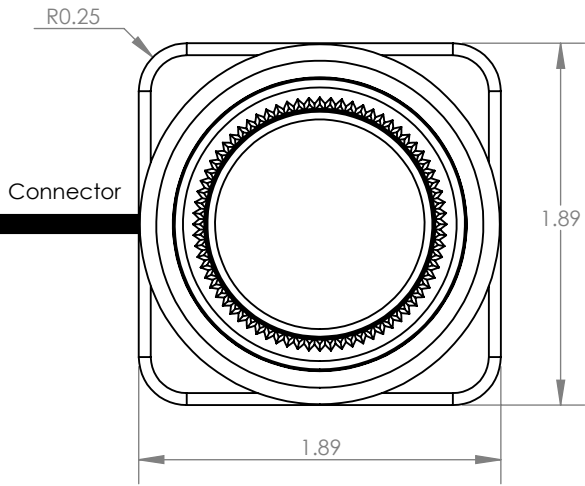
All handles available with any mounting option unless otherwise specified.



*Handle options "24" & "25" fit threaded housings only (Housing Options "E" or "F")

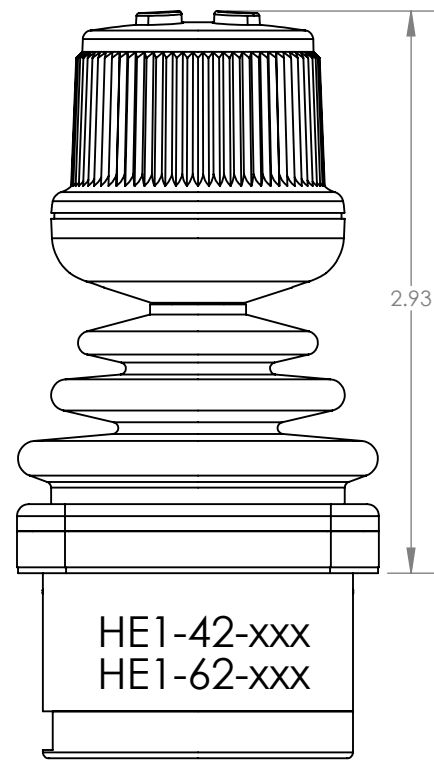
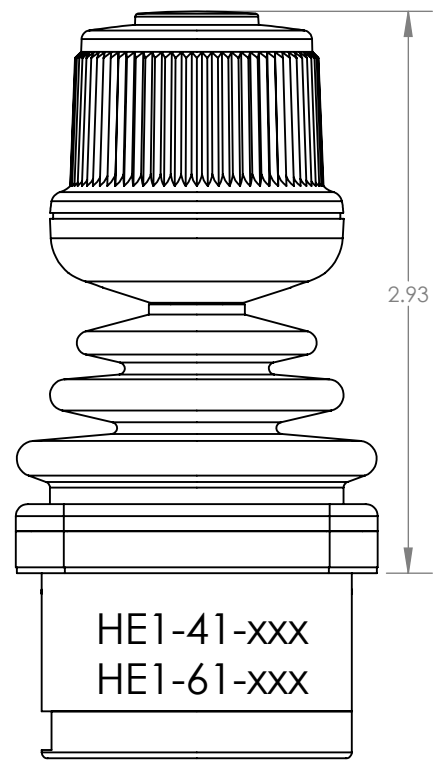
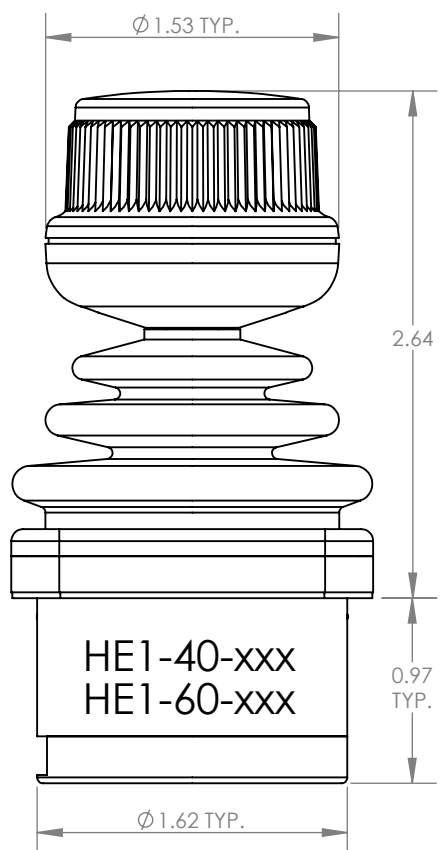
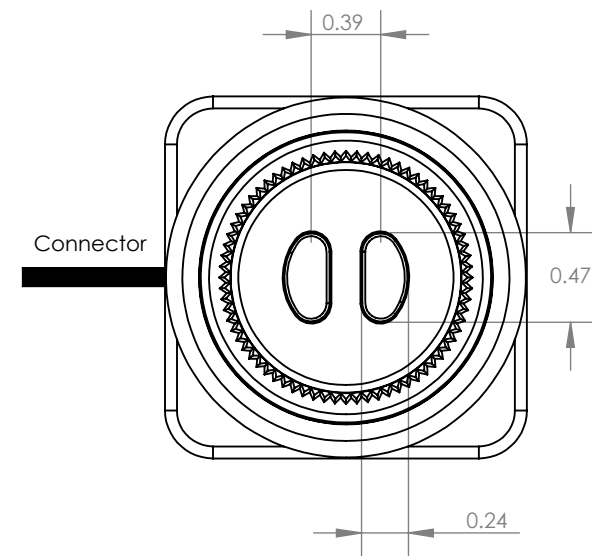
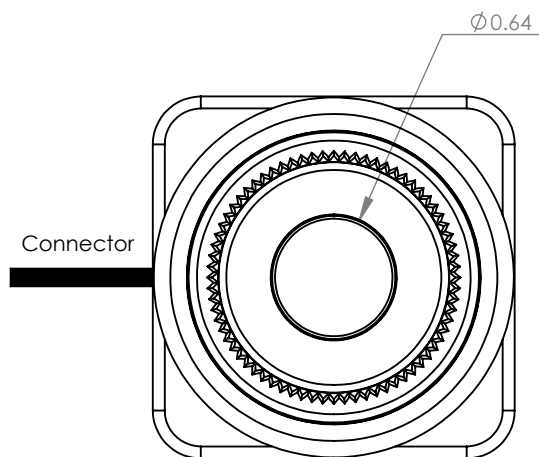
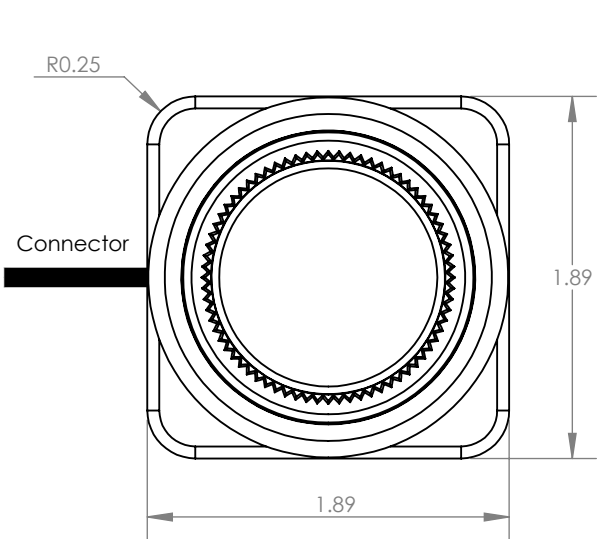
HE1 Series - Handle Options

3 Axis (Standard Z Axis) & 2 Axis with locked Z handle



HE1 Series - Handle Options

3 Axis (Low Profile Z Axis) & 2 Axis with locked Z handle

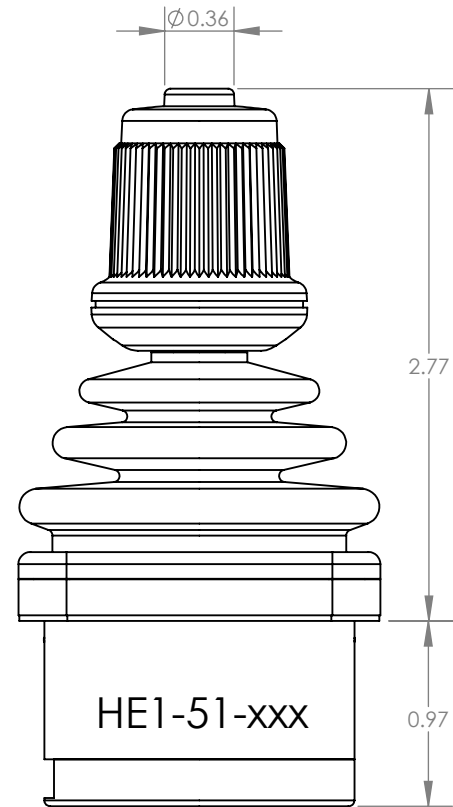
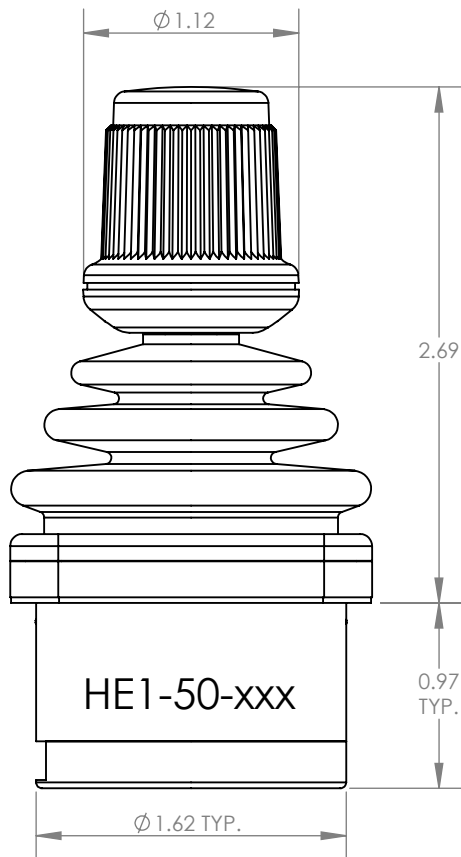
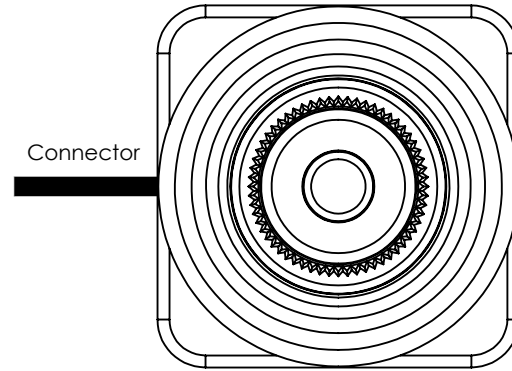
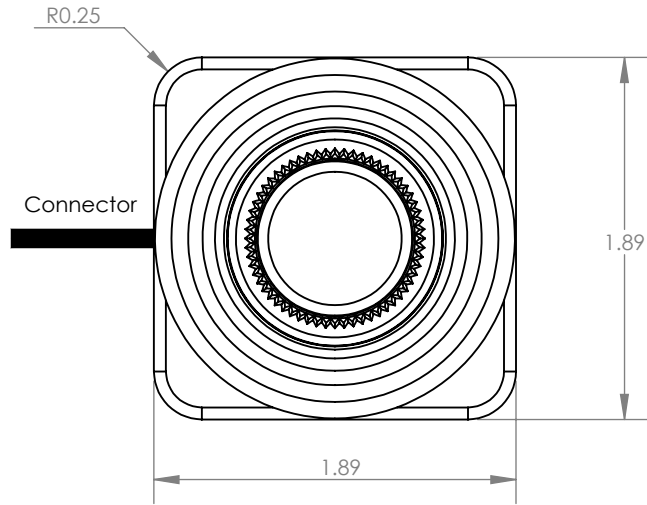


HE1-40-xxx
HE1-60-xxx

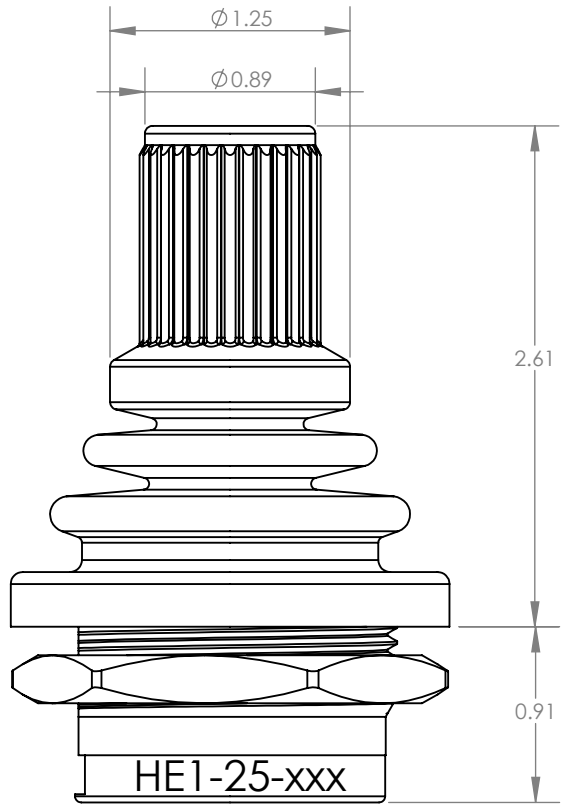
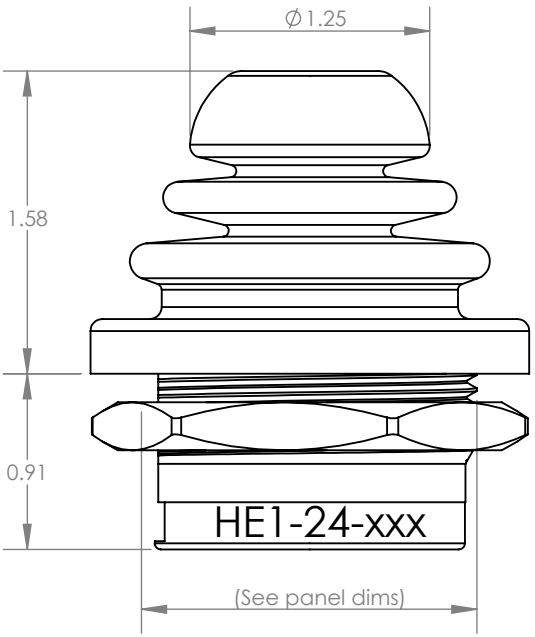
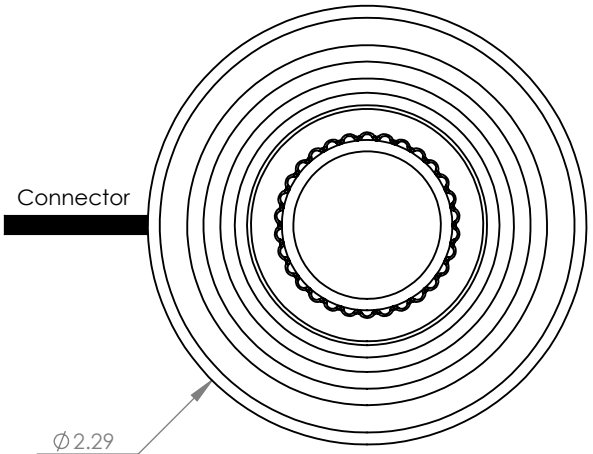
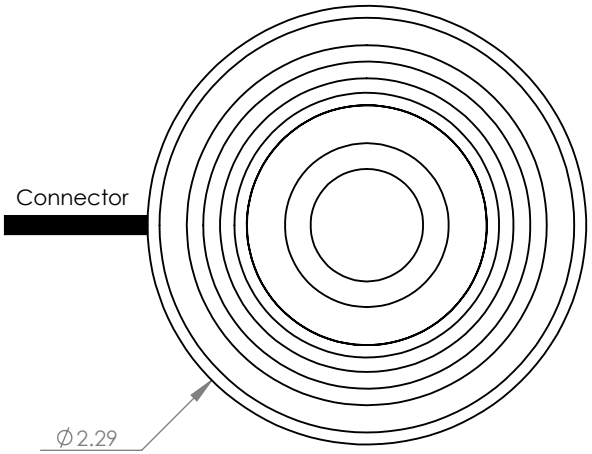
HE1-41-xxx
HE1-61-xxx

HE1-42-xxx
HE1-62-xxx

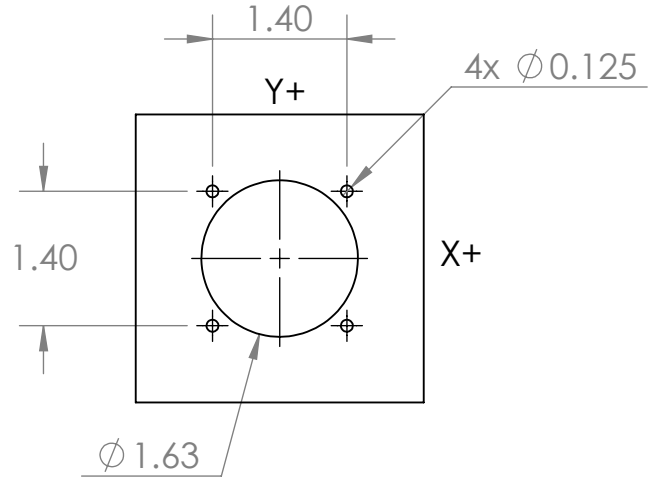
HE1 Series - Handle Options (3 Axis, Slim Z Axis)



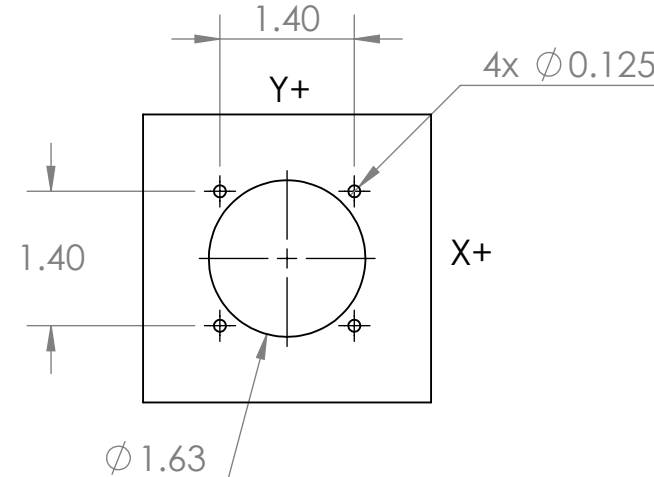
HE1 Series - Handle Options (2 Axis IP67 Sealed)



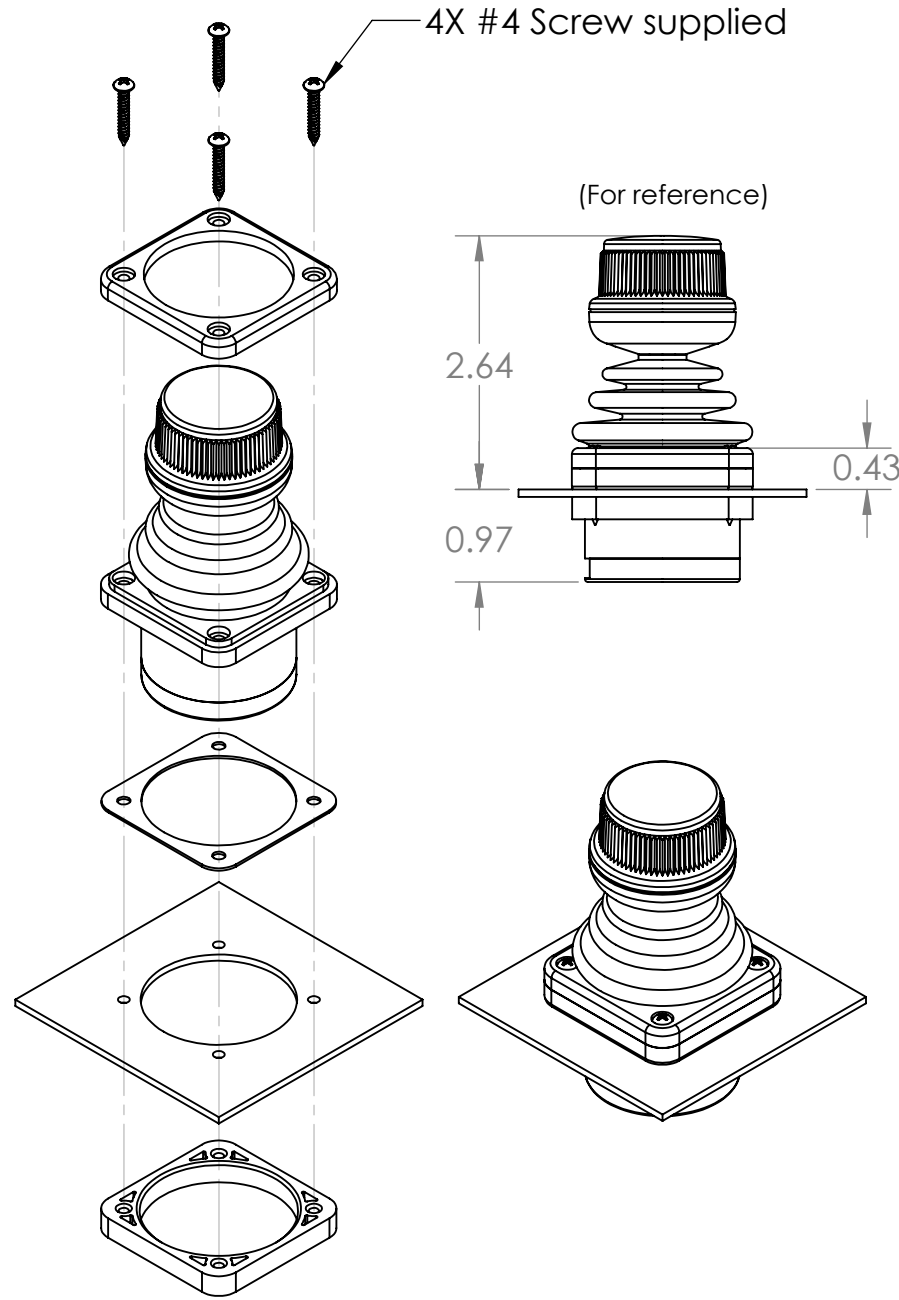
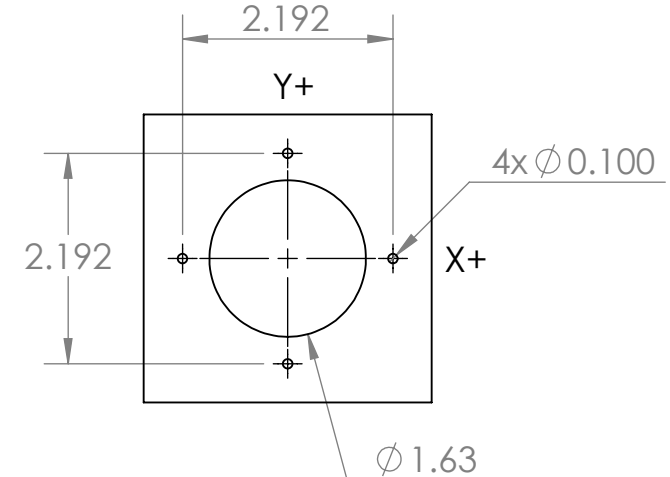
Drop-In Square Panel Dimensions



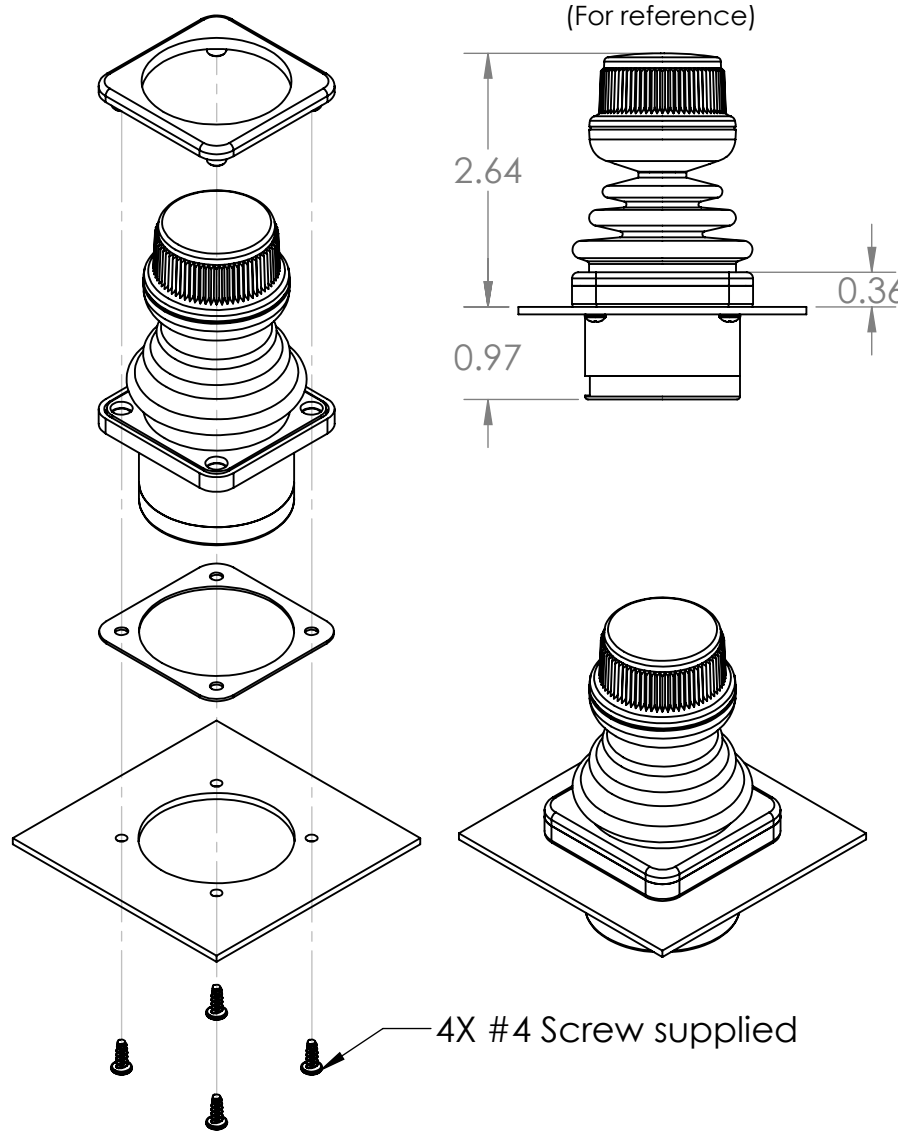
Drop-In Square Panel Dimensions



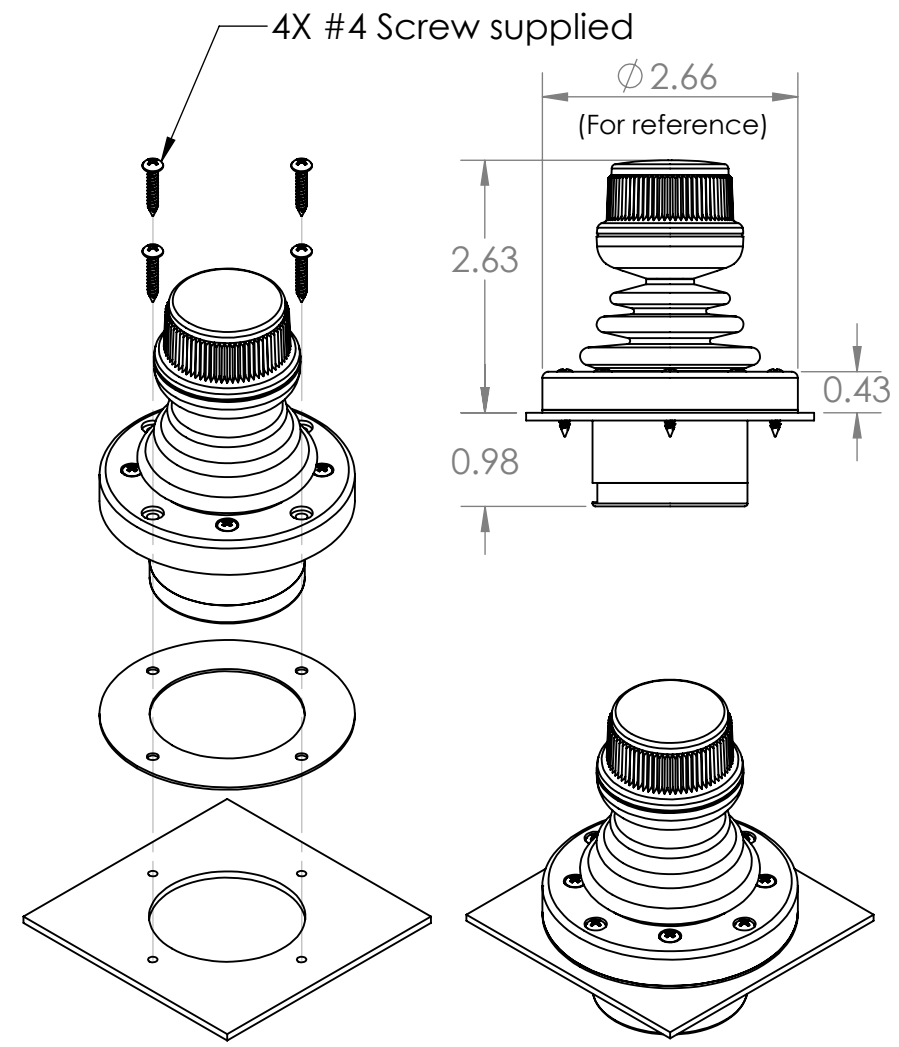
Drop-In Round Panel Dimensions



Drop-In Standard Square Bezel

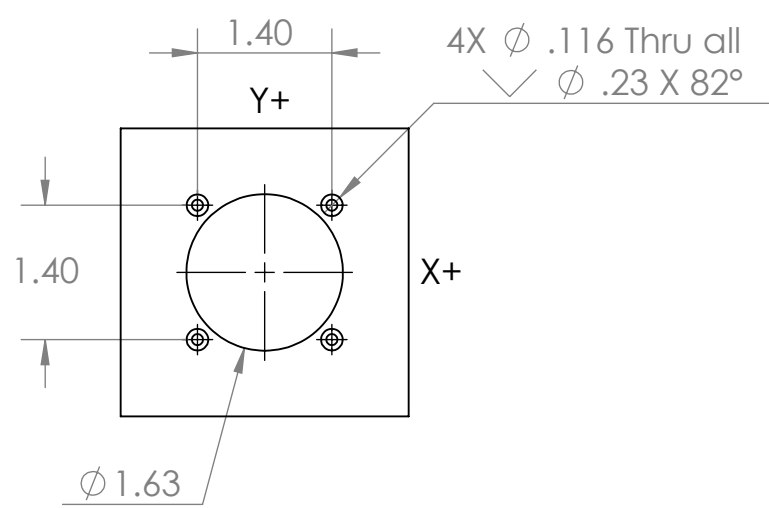


Drop-In Square Bezel, Under Panel Screws

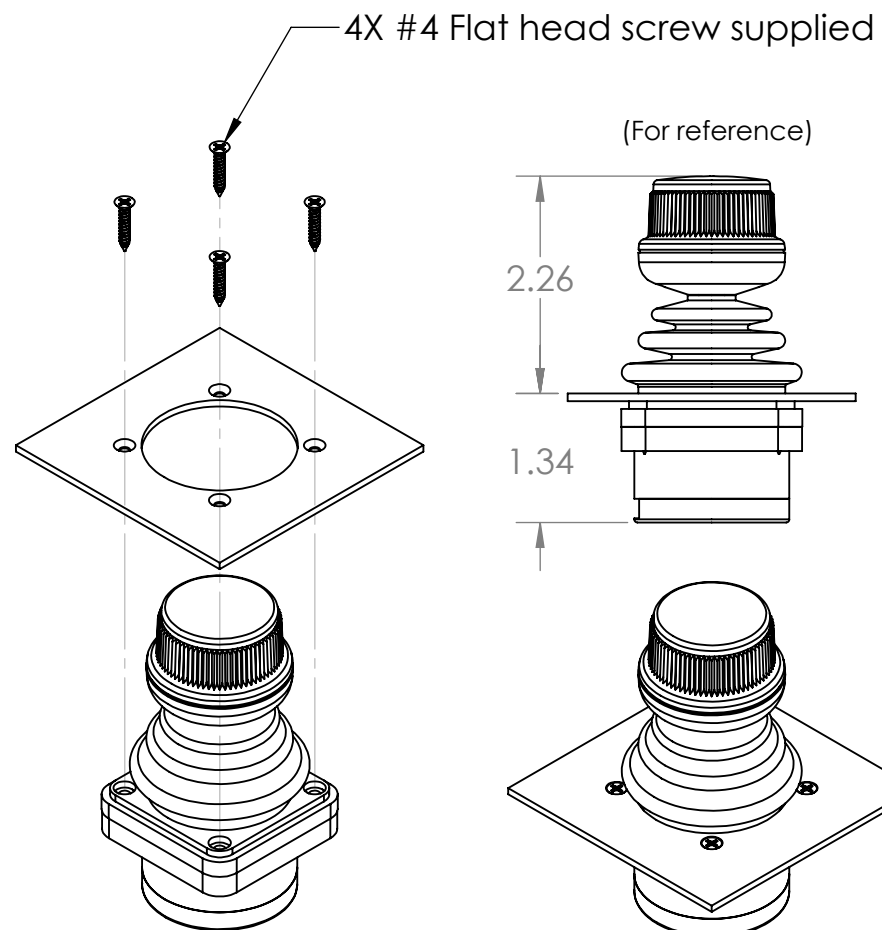
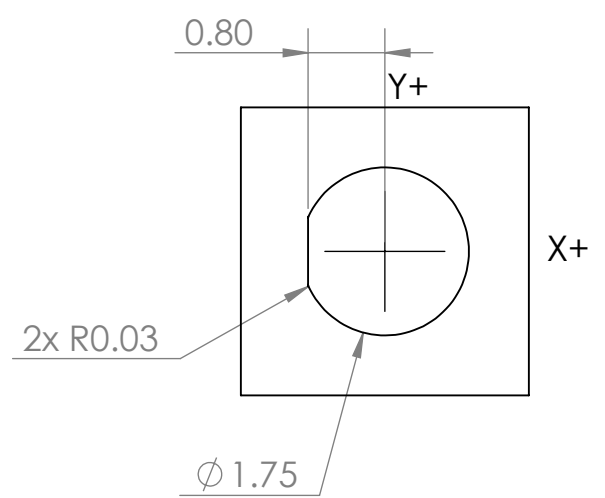


Drop-In Round Bezel

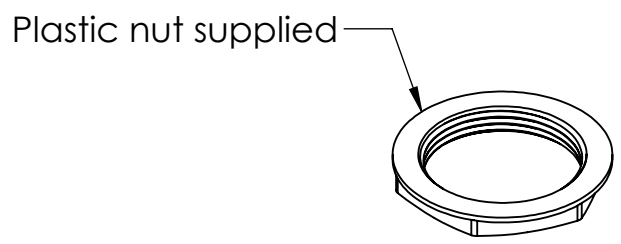
Rear Mount Panel Dimensions



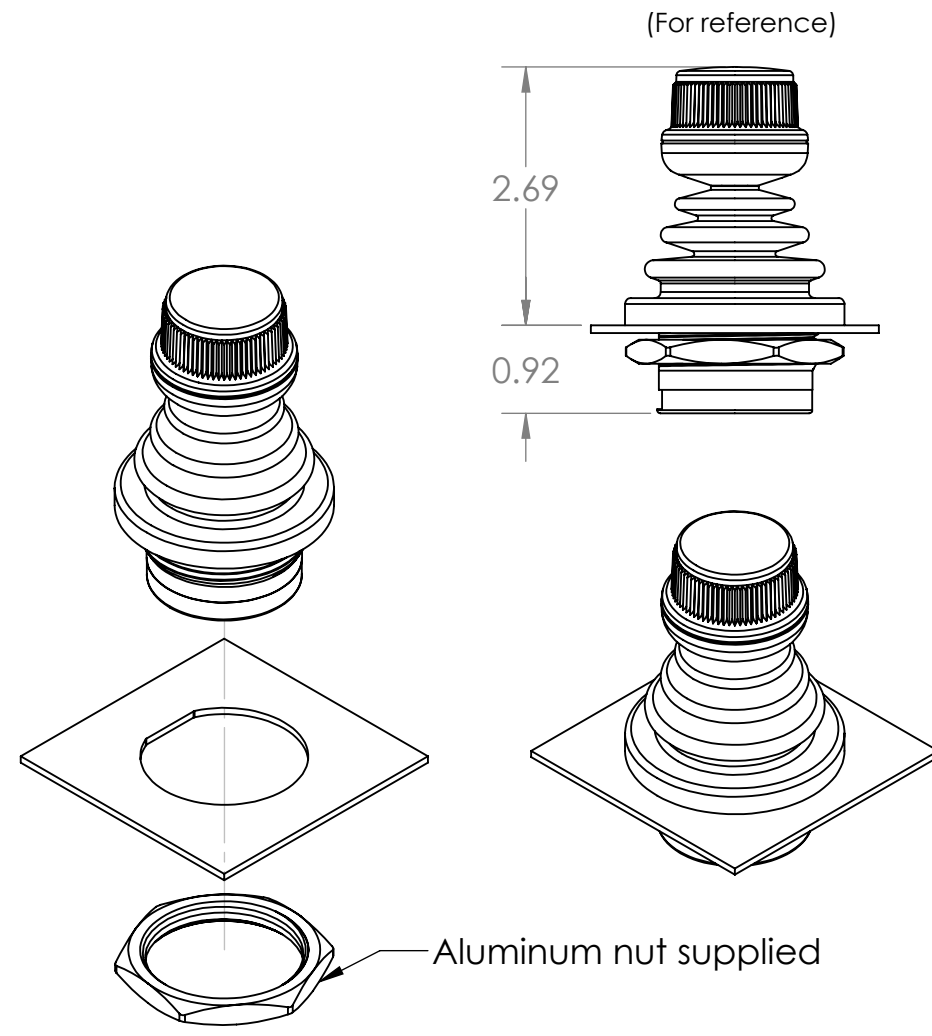
Metal or Plastic Threaded Housing Panel Dimensions



Rear Mount



Plastic threaded housing



Metal threaded housing