Miniature Joystick

Information and Specifications

The Miniature Joystick is our smallest precision analog joystick. It has been designed for keyboard and other installations which have a limited amount of available space. This joystick incorporates the same stick handles as our Standard Joystick and provides many of the same features. It is available in the following models:

- Model 100 (two axis)
- Model 200 (two axis with pushbutton)
- Model 300 (three axis)
- Model 400 (three aixis with pushbutton)

Optional features include:

- spring centering or friction positive true positioning
- four different mounting bezels
- rubber boot seal
- 5K or 10K plastic conductive potentiometers

Specifications:

- joystick travel — 25° from design center in all directions
- mechanical cycle life — 5 million (minimum)
- main ball pivot — precision ground stainless steel
- stick shaft — 3/16" brass plated
- potentiometers — set at center of resistance
- potentiometer calibration — thumb tab provides up to 180° of potentiometer calibration
- return to center repeatability — +1%
- mounting — front or rear panel (see bezels)
- panel thickness (mounting) — 0.050" [1.27mm] to 0.1875" [4.76mm]
- deflection force — 0.18lbs @ 25° @ 1-1/2" up from pivot point
- storage temperature range — -40^oC to $+85^oC$
- operating temperature range — -25^oC to $+80^oC$

Miniature Joystick

Miniature joystick line drawing
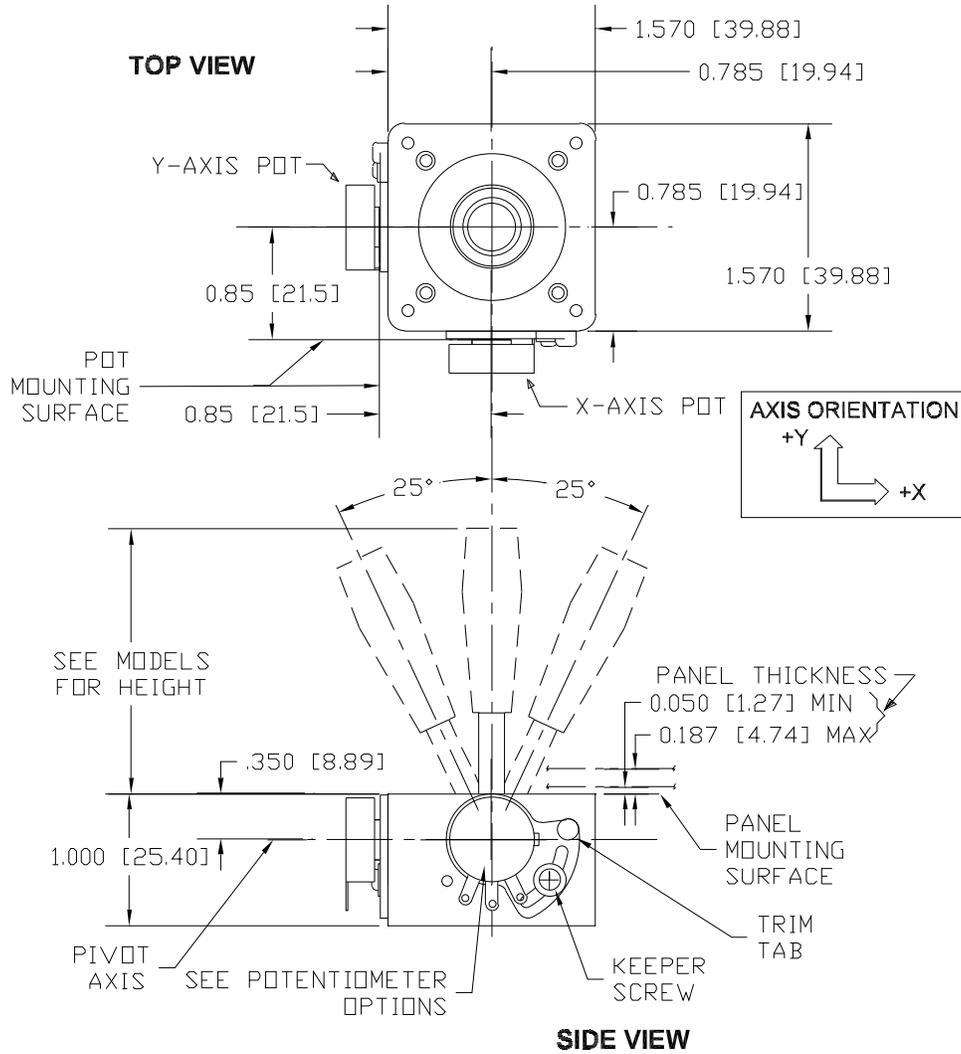
TOP VIEW

1.570 [39.88]
0.785 [19.94]

Y-AXIS POT

0.785 [19.94]

1.570 [39.88]

0.85 [21.5]

POT MOUNTING SURFACE

0.85 [21.5]

X-AXIS POT

AXIS ORIENTATION
+Y
+X

25°   25°

SEE MODELS FOR HEIGHT

PANEL THICKNESS
0.050 [1.27] MIN
0.187 [4.74] MAX

.350 [8.89]

PANEL MOUNTING SURFACE

1.000 [25.40]

TRIM TAB

PIVOT AXIS

SEE POTENTIOMETER OPTIONS

KEEPER SCREW

SIDE VIEW

Model 100 handle drawings (Two axis joystick)

The model 100 is a two axis joystick with a choice of five black stick handles. The unit is provided with a selection of mounting bezels to accommodate either front or rear panel mounting. The optional rubber boot seal can also be used.

Ø1.00 [25.40]
1.73 [43.94]
1.97 [50.04]

600-017 (C)

Ø0.44 [11.15]
1.75 [44.45]
2.01 [51.05]

600-018 (B)

Ø0.44 [11.15]
1.40 [35.48]
1.66 [42.06]

600-019 (A)

Ø0.36 [9.14]
1.18 [29.90]
1.33 [33.78]

600-020 (6)

Ø0.45 [11.33]
1.41 [35.81]
2.02 [51.31]

600-024 (3)
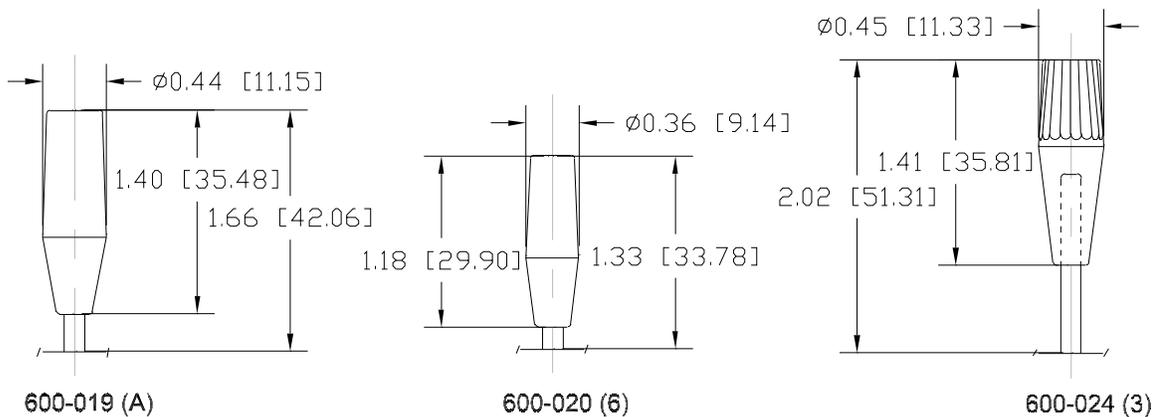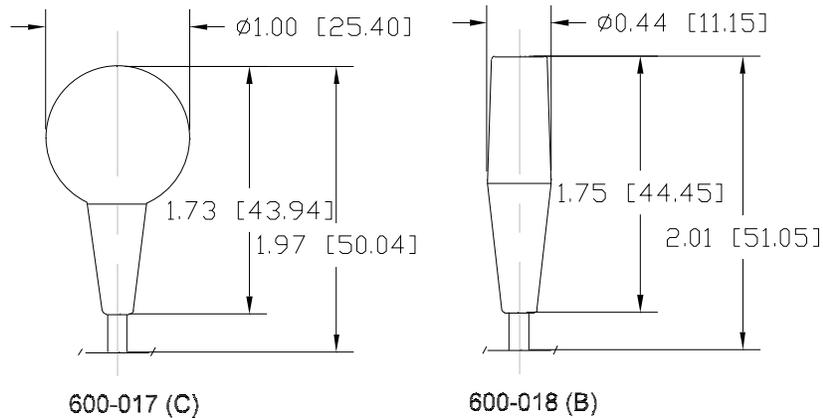
Note: Overall stick height is 0.20 [5.08] less for miniature joysticks.

Miniature Joystick

PRODUCTS

Miniature joystick mounting cutout dimension line drawings

There are a variety of front mount (FM) or rear mount (RM) panel mounting bezels available. These include:

Option C - Split bezel textured (FM) with 1.562 [39.68] cutout
Option F - Square bezel textured (RM) with 1.187 [30.15] cutout
Option L - Rubber boot kit and mounting ring textured (FM) with 1.562 [39.68] cutout
Option Q - Square bezel snap-on (FM) with 1.25 [31.75] cutout
See the Resistive Joysticks Part Number, Configuration & Feature Availability Guide to determine compatiblity of bezels to each model.

Notes:
    -Model 100 assemblies can use any of the bezels shown (does not apply to Ball Tip handle #600-017).
    -Model 200, 300, and 400 assemblies can be provided with split bezel (Option C) or rubber boot kit (Option L).
    - All front mount bezels are sent with two sets (4 screws per set) of mounting screws (1/2" and 5/16" with 2/56 threading, black anodized, Phillips flathead). 3/8" screws are available as an option.
   - All rear mount bezels are sent with two sets of mounting screws (1/2" and 1/4" with 2/56 threading, Phillips flathead). 5/16" screws are available as an option.
    - Mounting screws for snap-on and rear mount bezels are not anodized.
    - Joysticks ordered with housings are available only with the computer bezel (Option O) which is similar to the square bezel (Option F).
    - Both the rubber boot kit (Option L) and the snap-on bezel (Option Q) add additional cost to the joystick.

Ø.093 [2.36]
THRU 4 HOLES
TYPICAL

.635 [16.13]
TYPICAL

.635 [16.13]
TYPICAL

Ø1.562 [39.68]
CUTOUT
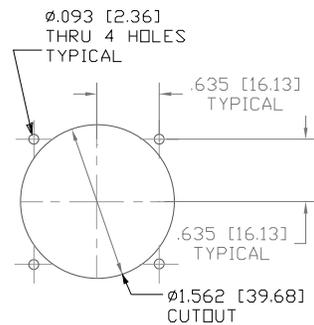
MOUNTING CUTOUT FOR
ROUND FRONT MOUNT
BEZELS (C & L)

Ø.156 [3.96]
THRU 4 HOLES
TYPICAL

.500 [12.70]
TYPICAL

.500 [12.70]
TYPICAL

Ø.1.187 [30.15]
CUTOUT
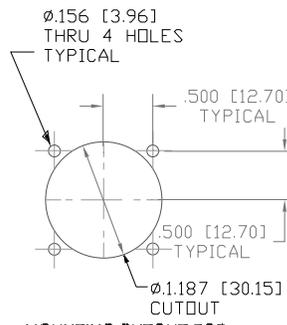
MOUNTING CUTOUT FOR
SQUARE REAR MOUNT
BEZEL (F)

Ø.125 [3.18]
THRU 4 HOLES
TYPICAL

.635 [16.13]
TYPICAL

.635 [16.13]
TYPICAL

Ø1.25 [31.75]
CUTOUT
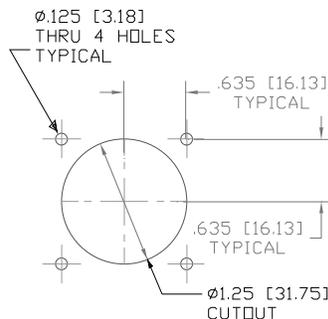
MOUNTING CUTOUT FOR
SQUARE SNAP-ON FRONT
MOUNT BEZEL (Q)

Miniature joystick mounting bezel pictures

OPTION C
Split Bezel Textured
Front mount (FM)
Cutout = 1.562" [39.68mm]

OPTION F
Square Bezel Textured
Rear mount (RM)
Cutout = 1.187" [30.15mm]

OPTION L
Rubber Boot Kit and
Mounting Rig Textured
Front mount (FM)
Cutout = 1.562" [39.68mm]

OPTION Q
Square Bezel Snap-on
Front mount (FM)
Cutout = 1.25" [31.75mm]
(Bezel covers screws)

Resistive Joysticks

Part Number, Configuration & Availability Guide

DESCRIPTION	KEY DESIG	FEATURE	\<\<\< FEATURE AVAILABILITY \>\>\>											
Joystick Type	S	Standard	S	S	S	S								
	M	Miniature					M	M	M	M				
	C	Compact									C	C	C	C
Model Number	1	100 - 2 Axis	100				100				100			
	2	200 - 2 Axis with pushbutton		200				200				200		
	3	300 - 3 Axis			300				300				300	
	4	400 - 3 Axis with pushbutton				400				400				400
Construction	0	Nylon plastic	X	X	X	X					X	X	X	X
	1	Wellamid	X	X	X	X	X	X	X	X				
Mounting Bezel	A	Round cup - textured (FM)	X											
	C	Split bezel - textured (FM)	X	X	X	X	X	X	X	X				
	F	Square bezel - textured (RM)	X				X							
	O	Computer bezel	X	X	X	X					X	X	X	X
	L*	Rubber boot kit (FM)	X	X	X	X	X	X	X	X				
	Q*	Square bezel snap-on (FM)	X				X							
	U*	Round bezel snap-on (FM)	X	X	X	X								
	X	Without bezel	X	X	X	X	X	X	X	X				
Centering	0	Spring centering	X	X	X	X	X	X	X	X	X	X	X	X
	1	Friction Clutch	X	X	X	X								
	3*	Center detent - X axis	X	X	X	X								
	4*	Center detent - Y axis	X	X	X	X								
	5*	Center detent - both axes	X	X	X	X								
	6*	Torque set (friction)	X	X	X	X	X	X	X	X				
Stick handle	3	Concave tip - long (600-024)	X				X				X			
	4	Pushbutton - Option 4		X				X				X		
	5	Pushbutton - Option 5		X				X				X		
	6	Straight tip - Short (600-020)	X				X				X			
	7	3rd axis - A model			X				X				X	
	8	3rd axis - B model			X				X				X	
	9	3rd axis with pushbutton				X				X				X
	A	Straight tip - Mid (600-019)	X				X				X			
	B	Straight tip - Long (600-018)	X				X				X			
	C*	Ball tip (600-017)	X				X				X			
	E*	Pushbutton - Option E		X				X				X		
	G	Pushbutton - Option G		X				X				X		
	X	Without handle	X				X				X			
Trim	0	Above panel trim	X	X	X	X					X	X	X	X
	1	Below panel trim	X	X	X	X	X	X	X	X	X	X	X	X
	9	Unassembled	X	X	X	X	X	X	X	X				
Potentiometer	B	Clarostat 5K	X	X	X	X	X	X	X	X	X	X	X	X
	C	Clarostat 10K	X	X	X	X	X	X	X	X	X	X	X	X
	J	CTS (HP100) 100K	X	X	X	X					X	X	X	X
	L	CTS (HP130) 130K	X	X	X	X					X	X	X	X
	P	Copal (CRV-16) 5K	X	X	X	X	X	X	X	X	X	X	X	X
	R	NEI Sensorcube 5K	X	X	X	X	X	X	X	X	X	X	X	X
	U	NEI Sensorcube 10K	X	X	X	X					X	X	X	X
	W	Without pot	X	X	X	X	X	X	X	X				
	Z	Special pot	X	X	X	X								

* Additional charge