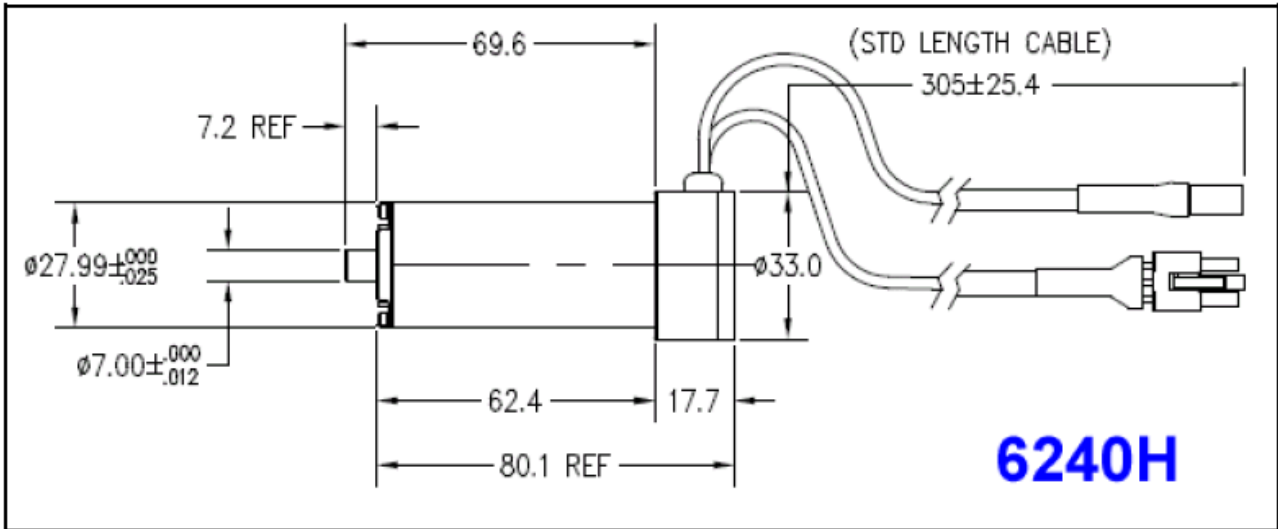
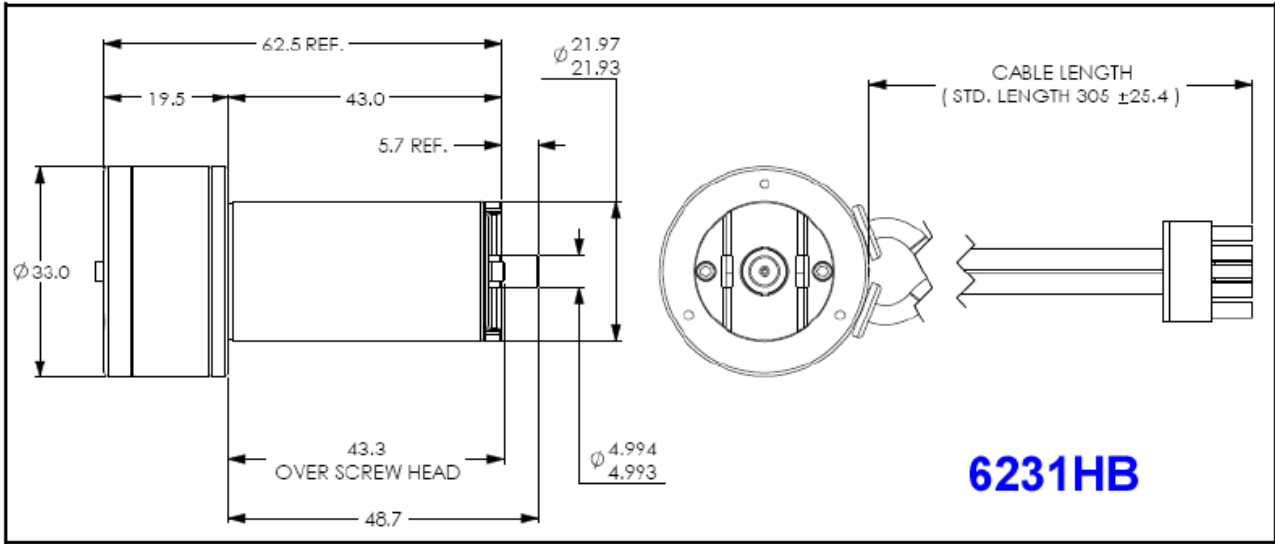




## Optical Scanner (Galvanometer)

Model	6231HB	6240H	
<b>Mechanical Specifications</b>			
Optical Aperture, Two-Axis, Std	8, 10 & 12	12, 15, 20, 25 & 30	mm
Rated Angular Excursion	40	40	°
Rotor Inertia	0.82	2.4	gm*cm2, +/- 10%
Torque Constant	11,100	190,000	dyne-cm/amp, +/- 10%
Maximum Coil Temperature	110	110	°C
Thermal Resistance (Coil to Case)	1.0	0.8	°C/Watt, Max
<b>Electrical Specifications Drive Mechanism</b>			
Coil Resistance	1.27	1.2	Ohms, +/- 10%
Coil Inductance	176	340	µH, +/- 10%
Back EMF voltage	195	330	mV/degree/sec, +/- 10%
RMS Current	5.8	7.0	Amperes at Tcase of 50°C, Max
Peak Current	25	25	Amperes, Max
Small Angle Step Response Time	0.25	0.30	ms, with balanced load of 0.3 gm*cm2
<b>Position Detector</b>			
Linearity	99.99	99.9	Minimum, over 20 degrees
Scale Drift	50	50	PPM/°C, Maximum
Zero Drift	15	15	µrad/° C, Maximum
Repeatability, Short Term	8	8	microradians
Output Signal, Common Mode	155	155	µA with AGC current of 30 mA, +/-20%
Output Signal, Differential Mode	11.7	11.7	µA/°, at common mode current of 155 µA, +/-20%
<b>Driver</b>			
	67723	67724	





## MicroMax® Model 677XX

Board level single axis driver electronics

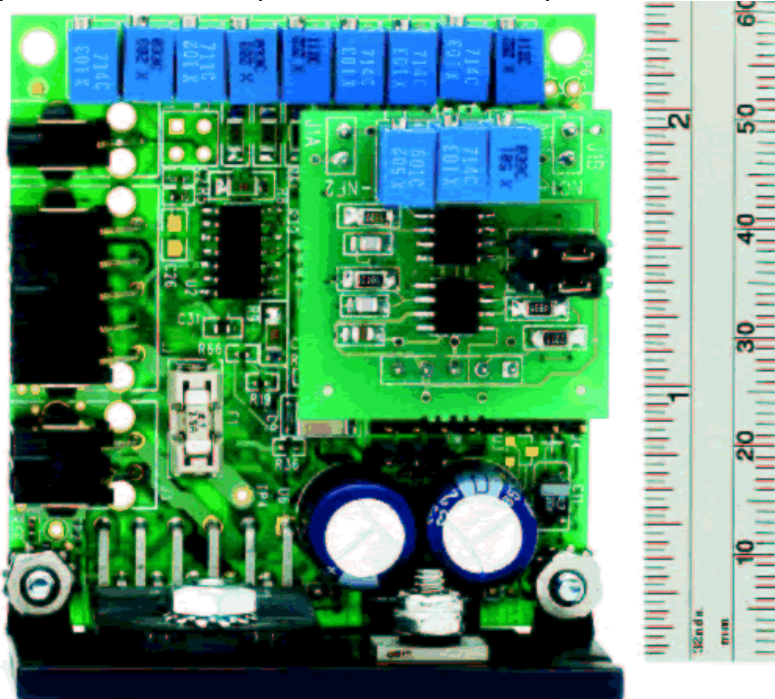
### FEATURES:

- Smallest Servo Driver For Compact, Low Cost System Integration
- Position, Error and Velocity Output Signals
- Input Scale and Offset Adjustment
- On Board Protection Circuitry

**The MicroMax Model 677XX** driver provides an extremely compact, high performance and fully featured servo package at a very attractive price. At just 2 inches in width and 2.5 in length it is among the smallest servo drivers commercially available, bringing easier integration to your scanning solution. Featuring automatic gain control (AGC), low noise system damping, linearity compensation and high stability components, the 677XX servo provides high quality and stable positioning.

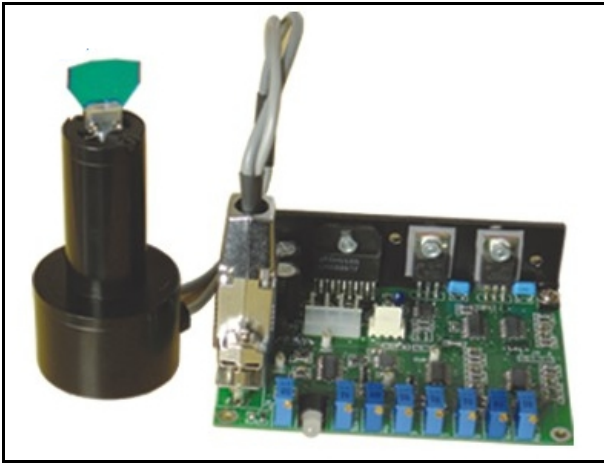
**Designed with flexibility in mind, the MicroMax Model 677XX** features differential analog inputs, flexible power supply configurations and positioning control allowing for optimization of system positioning angles, speed and accuracy. System position, velocity and error output signals make integrations into complex scanning system applications easy and accurate. Integral mounting hardware, low profile connectors and the overall small size allow for compact system designs with easy integration.

**The New Smaller Size MicroMax 677XX** single axis servo driver can be configured for optimal performance with Cambridge Technology's 6200 and 6800 line of closed loop, galvanometer based optical scanners. Used with Cambridge Technology's patented position detection galvanometer technology, the MicroMax 677XX provides improved time and temperature stability without the need for thermal compensation. On board protection circuitry ensures reliable system control during integration and operation. To guarantee safe operation and extended product lifetime, the MicroMax 677XX monitors and controls galvanometer rms power and features a socketed fuse for added system protection. It also utilizes servo signal conditioning to maintain controlled performance within rated angular excursion limits. This combination of size, flexibility and price make the MicroMax Model 677XX the ideal choice where high levels of speed and performance are required in the most compact environment.

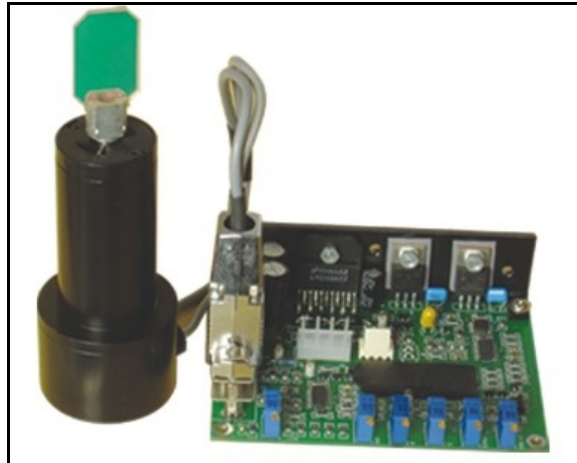


## OSSH Series Optical Scanners (Galvanometers)

OSSH series galvanometer optical scanners are moving-magnet actuators and the rotors of the scanners are a magnet. The capacitor sensor is used to measure the moving angle. They are mainly used in laser marking, laser show etc.

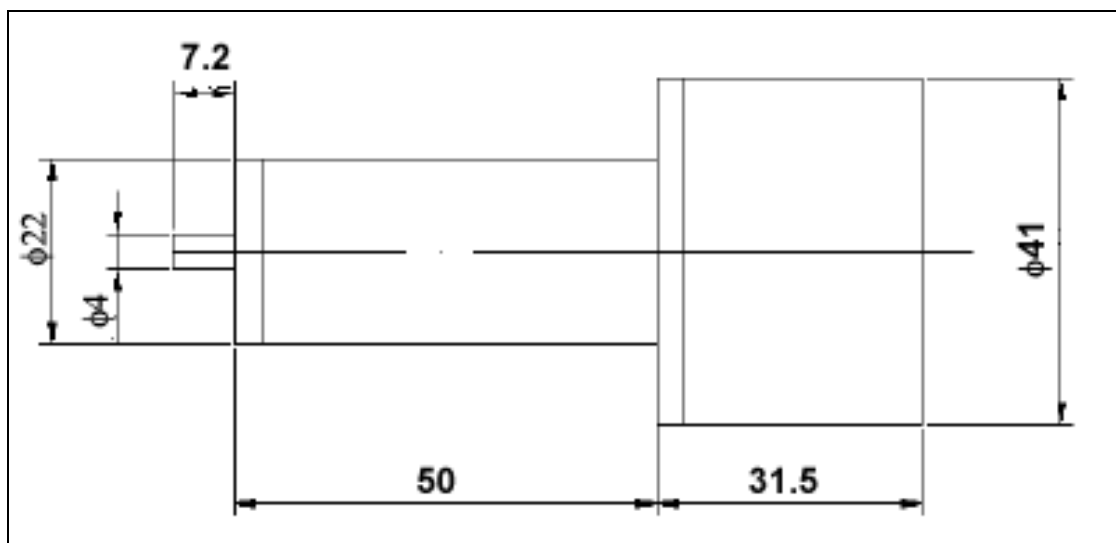


OSSH22

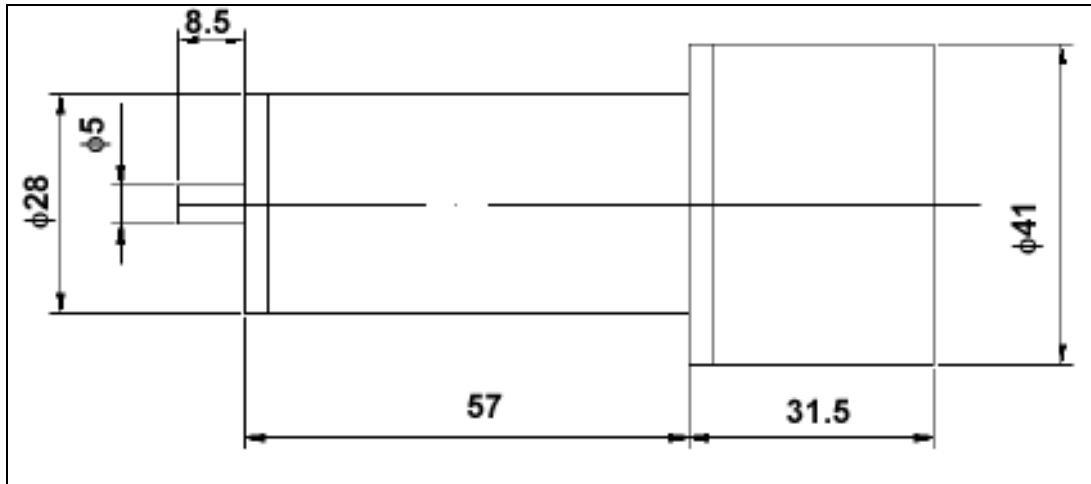


OSSH28

Galvanometer model	OSSH22	OSSH28
Optical apertures supported, two-axis	Max. 10mm	Max. 16mm
Max mechanical rotation angle	$\pm 20^\circ$	$\pm 20^\circ$
Linearity (within $\pm 20^\circ$ )	99.9 %	99.9 %
Response time	<0.35-0.50ms	<0.50-0.70ms
Analog input resistance	200K $\pm$ 1% $\Omega$	200K $\pm$ 1% $\Omega$
Circuit stability	20ppm/ $^\circ$ C	20 ppm/ $^\circ$ C
Repeatability	8urad	8urad
Input signal	$\pm 10$ V(MAX)	$\pm 10$ V(MAX)
DC power supply	$\pm 24$ VDC- $\pm 28$ VDC	$\pm 24$ VDC- $\pm 28$ VDC
Environmental temperature	-10 $^\circ$ C -- 50 $^\circ$ C	-10 $^\circ$ C -- 50 $^\circ$ C
Drive board	98x71x25mm	98x71x25mm
Dimension (galvanometer)	$\phi 22$ ( $\phi 41$ ) x88mm	$\phi 28$ ( $\phi 41$ ) x88mm



Schematic of OSSH22



Schematic of OSSH2