

# Model 6240H Optical Scanner

## Mechanical and Electrical Specifications

*All position detector specifications apply with Cambridge Technology servo driver after a 30 second warm-up.  
 All angles are in mechanical degrees.  
 Consult manual for complete operating instructions.*

### Mechanical Specifications

Rated Angular Excursion: 40°  
 Rotor Inertia: 2.4 gm\*cm<sup>2</sup>, +/-10%  
 Torque Constant: 2.0x10<sup>5</sup> Dyne-cm/Amp, +/-10%  
 Maximum Coil Temperature: 110 °C  
 Thermal Resistance, Coil to Case: 0.62°C/Watt, Max

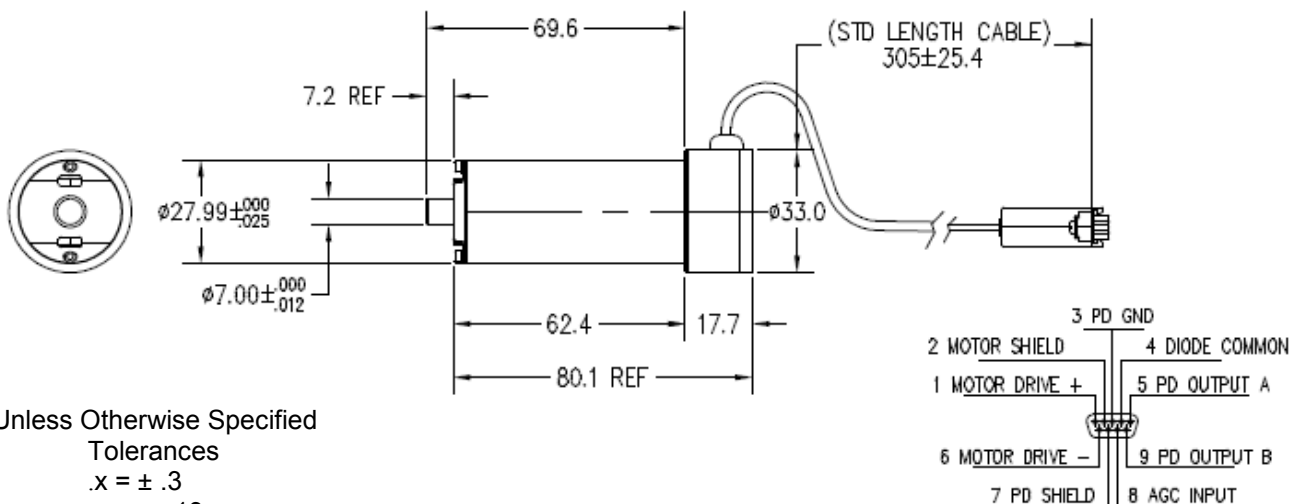
### Electrical Specifications, Drive Armature

Coil Resistance: 1.03 Ohms, +/-10%  
 Coil Inductance: 350 μH, +/-10%  
 Back EMF Voltage: 346μV/Degree/Second, +/-10%  
 Current, RMS: 8.2 A, Maximum  
 Current, Peak: 25 A, Maximum  
 Small Angle Step Response: 350 μs, with 15mm CTI Y mirror



### Electrical Specifications, Position Detector

Linearity: 99.9 %, minimum, over 40° optical  
 Scale Drift: 50 PPM/°C, Maximum  
 Zero Drift: 15 Microradians/°C, Maximum  
 Repeatability: 8 Microradians, Maximum  
 Output Signal, Common Mode: 155 μA, with AGC current of 30mA, +/-20%  
 Output Signal, Differential Mode: 12μA/°, at common mode current of 155μA, +/- 20%



Unless Otherwise Specified  
 Tolerances  
 .x = ± .3  
 .xx = ± .13