

# Model 6231HC 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: 0.82 gm\*cm<sup>2</sup>, +/- 10%  
 Torque Constant: 1.11X10<sup>5</sup> dyne-cm/amp, +/- 10%  
 Maximum Rotor Temperature: 110 °C  
 Thermal Resistance (Rotor to Case): 1.0 °C/Watt, Max

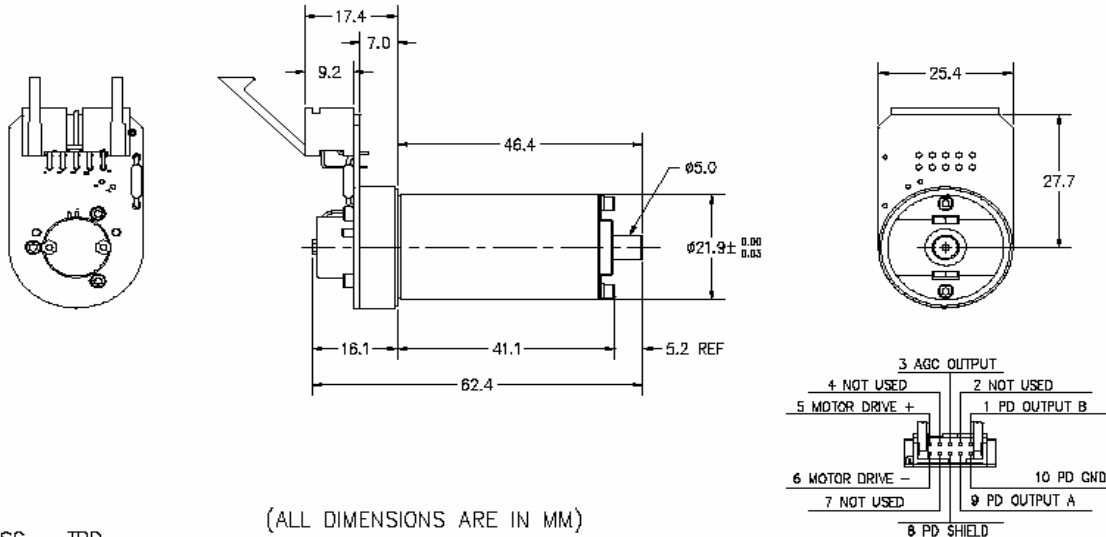


### Electrical Specifications Drive Mechanism

Coil Resistance: 1.27 Ohms, +/- 10%  
 Coil Inductance: 176 μH, +/- 10%  
 Back EMF voltage: 195 μV/degree/sec, +/- 10%  
 RMS Current: 5.8 Amperes at Tcase of 50°C, Max  
 Peak Current: 25 Amperes, Max  
 Small Angle Step Response Time: 250 μs, with balanced load of 0.3 gm\*cm<sup>2</sup>

### Position Detector

Linearity: 99.9, Minimum, over 20 degrees  
 Scale Drift: 50 PPM/°C, Maximum  
 Zero Drift: 15 μrad/° C, Maximum  
 Repeatability, Short Term: 8 Microradians  
 Output Signal, Common Mode: 155μA with AGC current of 30 mA, +/- 20%  
 Output Signal, Differential Mode: 11.7μA/°, at common mode current of 155 μA, +/- 20%



MASS = TBD

(ALL DIMENSIONS ARE IN MM)

Specifications are subject to change without notice.