

# Model 6210H 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.  
 Specifications subject to change without notice

### Mechanical Specifications

Rated Angular Excursion: 40°  
 Rotor Inertia: 0.018 gm·cm<sup>2</sup>, ± 10%  
 Torque Constant: 2.79x10<sup>4</sup> dyne·cm/amp, +/-10%  
 Maximum Rotor Temperature: 110°C  
 Thermal Resistance (Rotor to Case): 2°C/W

### Electrical Specifications/Drive Mechanism

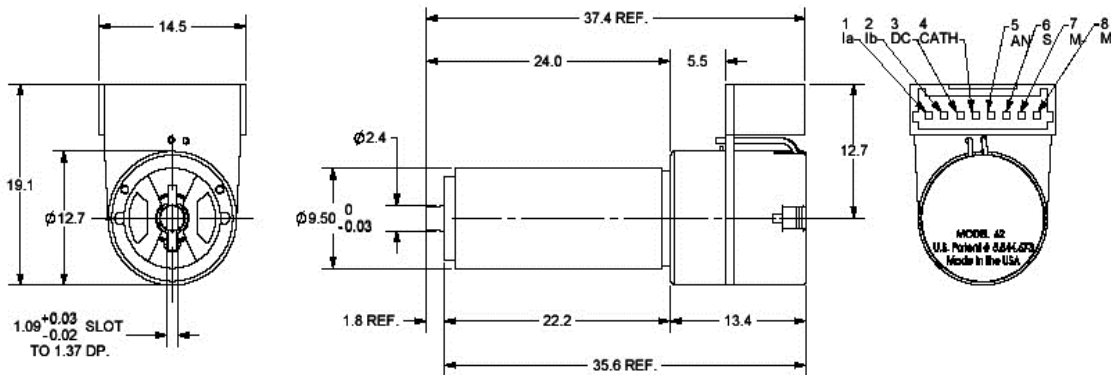
Coil Resistance: 3.7 Ohms, +/-10%  
 Coil Inductance: 109 μH, +/-10%  
 Back EMF Voltage: 48.7 μV/(deg/sec)  
 RMS Current: 2.4 A at Tcase of 50°C, Max  
 Peak Current: 8 A, Max  
 Small Angle Step Response: 100μs



Shown With Mini-CT Connector

### Position Detector

Linearity: 99.9 %, Minimum over 20 degrees, 99.5% Typical, over 40 degrees  
 Scale Drift: 50 PPM/°C, Maximum  
 Zero Drift: 15μrad/°C, Maximum  
 Repeatability, Short Term: 8 microradians  
 Output Signal, Common Mode: 155μA with an AGC current of 30mA, +/-20%  
 Output Signal, Differential Mode: 12μA/°, at common mode current of 155μA, +/-20%



PIN #	DESCRIPTION
1	Ia
2	Ib
3	DIODE COMMON
4	AGC RETURN
5	AGC INPUT
6	SHIELD
7	- MOTOR
8	+ MOTOR

(ALL DIMENSIONS ARE IN mm)  
 TOL: .X = ±.3  
 MASS = 18 GRAMS

Also, available in 6210HL, 6210HR, 6210HB and 6210HBR connector versions.  
 Specifications are subject to change.