

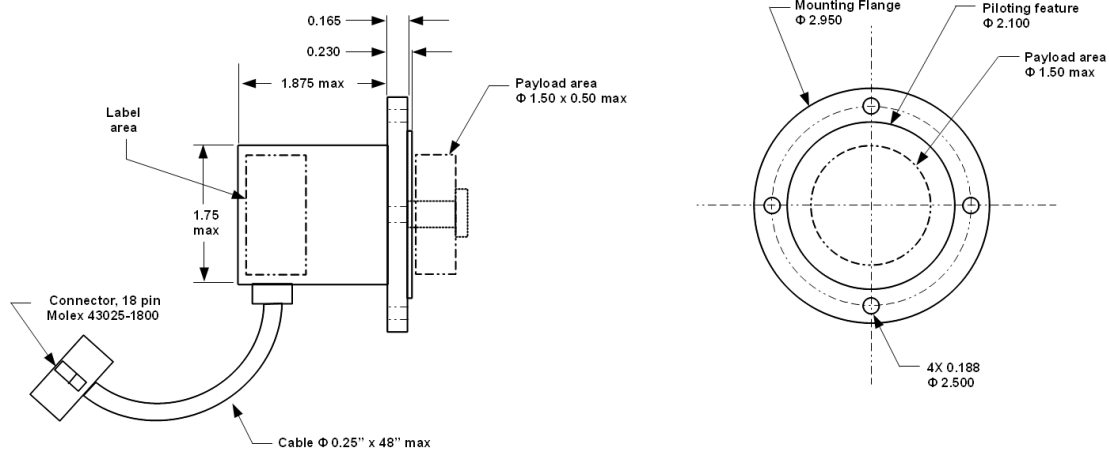
SSR1100 Scan Motor/Controller System

The SSR1100 Scan Motor/Controller family is designed to provide precise rotation of scan mirrors and active E/O payloads operating in the range of 1000RPM to 10000RPM. Typical applications include laser leveling systems, laser based position measurement systems, laser line scan generator, and any optical system requiring precision constant velocity scanning.

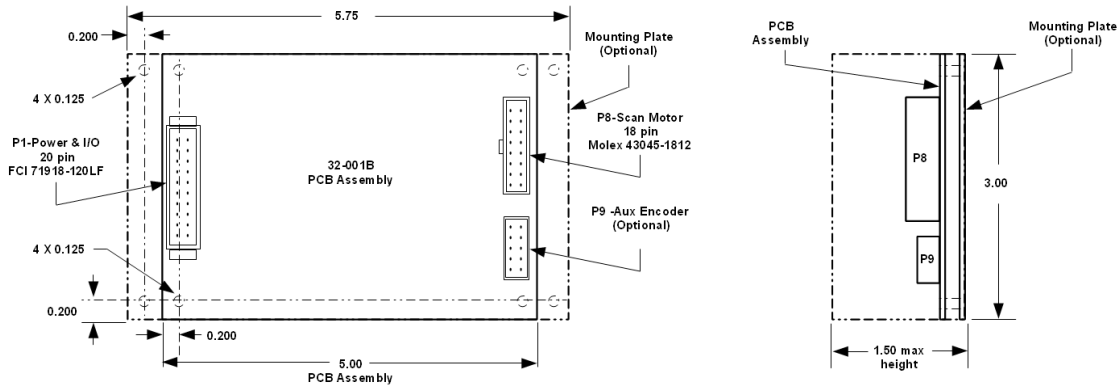
Features:

- Excellent speed stability: Speed jitter <0.05% (500 PPM), standard deviation of 100 revolutions.
- Cost effective solution for many scanning applications. (Optic or payload supplied at extra cost).
- Speed range: 1000RPM to 10,000RPM, bi-directional rotation.
- Rugged mechanical design & precision, long life ball bearings.
- Phase lock-loop speed control system, no long term speed error.
- Brushless DC motor with Hall sensor feedback.
- Power requirement: 10VDC to 24VDC, 20W max power consumption.
- Accommodates payloads up to 2oz (55g) and 1.5" (50mm) diameter.
- -25°C to +75°C operating temperature range.
- Custom configurations available to accommodate mounting, payload (optic), and control requirements.

Scan Motor



Controller/Driver 32-001B



Connector Pin Designation

Scan Motor Connector P8	Power and Control Connector P1	
Molex 43045-1812 Mate: 43025-1800	FCI 71918-120LF Mate: 71600-620LF	
J1-1 Motor Phase-A	J2-1 +24VDC Power Input (+12V to +28 range, 2.5A max.)	J2-11 Fault Output
J1-2 Motor Phase-B	J2-2 +24VDC Power Input (Internally connected to J2-1)	J2-12 Encoder Channel-A Output
J1-3 Motor Phase-C	J2-3 Reserved	J2-13 Encoder Channel-B Output
J1-4 Motor Shield	J2-4 Reserved	J2-14 Encoder Index Output
J1-5 Sensor Power (+5v)	J2-5 Power Return	J2-15 Signal Return
J1-6 Hall sensor power GND	J2-6 Power Return	J2-16 RT Excitation + (optional)
J1-7 Hall sensor H1 output	J2-7 Reserved	J2-17 RT Excitation - (optional)
J1-8 Hall sensor H2 output	J2-8 SREF, Input (HCTTL compatible, RPM = SREF/1250 x 60)	J2-18 Reserved
J1-9 Hall sensor H3 output	J2-9 RUN/STOP Input (+5V or open = RUN, 0V = STOP)	J2-19 RT Signal + (optional)
J1-10 Encoder Power (+5V)	J2-10 Signal Return	J2-20 RT Signal - (optional)
J1-11 RT Excitation + (optional)		
J1-12 RT Excitation - (optional)		
J1-13 RT Signal + (optional)		
J1-14 RT Signal - (optional)		
J1-15 Encoder Channel - A		
J1-16 Encoder Channel - B		
J1-17 Encoder Index		
J1-18 Encoder GND		

Typical Application

