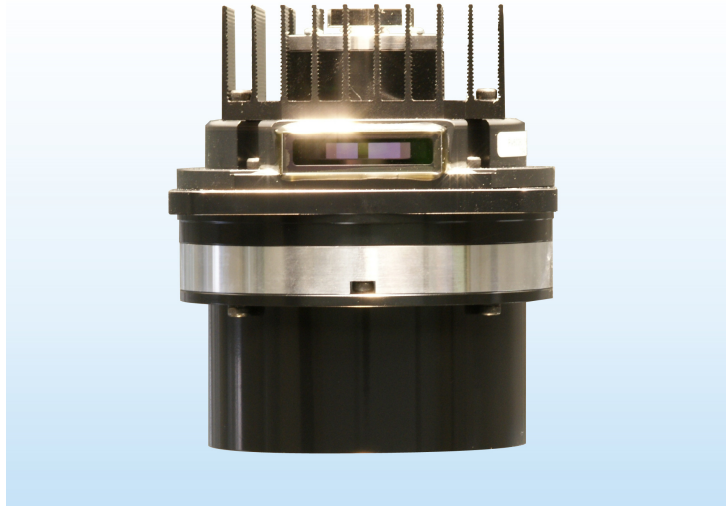


ROAD RUNNER™ 70,000 RPM Polygon Scanner!



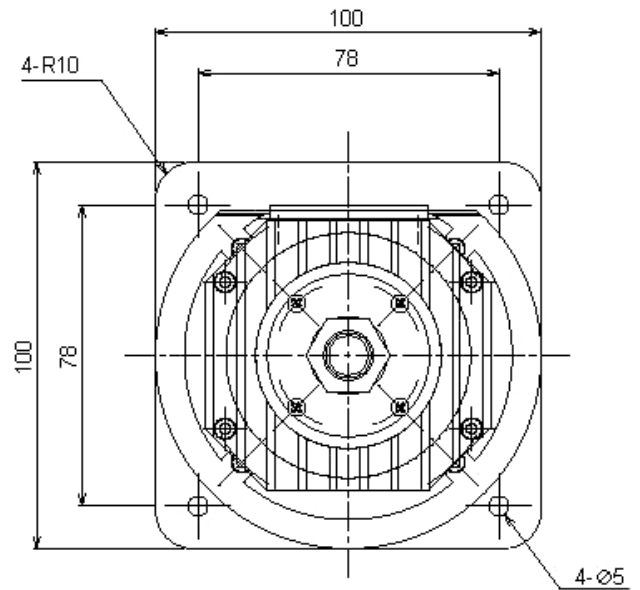
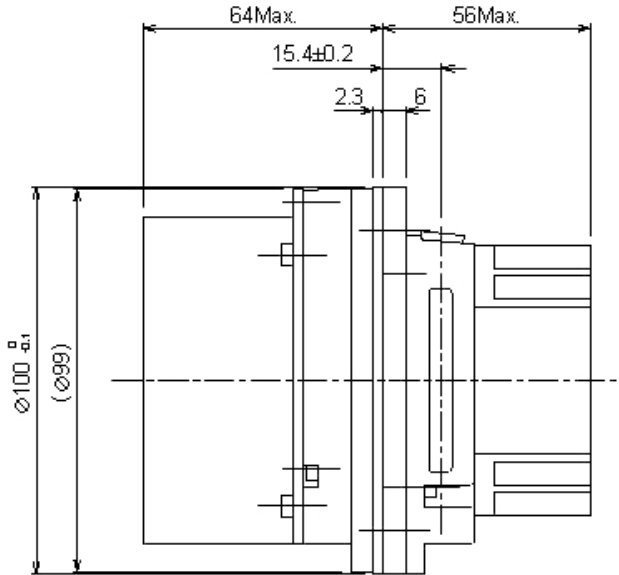
World's Fastest and Whisper Quiet!

For many years, 55,000 RPM was the maximum speed of polygon scanning. Users had requirements to run faster but there were limits on how fast an air bearing motor carrying a practical sized polygon mirror could go. Further, a 2.5 inch (64 mm) diameter polygon mirror at 55,000 RPM sounds like a siren as the facet tips travel at over 400 MPH (650 KPH). The high noise level makes it impractical to use in some office and medical environments.

ROAD RUNNER™ 70,000 RPM Polygon Scanner shatters the old speed limit and does so with a whisper quiet design! A sealed optical window keeps in the noise. Sealing the mirror housing also keeps out contamination, prolonging the service life of the optic. Rated for 20,000 Start/Stop cycles or 20,000 hours, the 70,000 RPM air bearing scanner is very long lasting.

Biomedical applications include Optical Coherence Tomography, Microscopy, Swept Source, and Ophthalmology. Industrial applications include Inspection and 3D Measurement. ULTRAFast lasers often require polygon speed.

The standard model **ROAD RUNNER™** 70,000 RPM Polygon Scanner has a 72 facet polygon with an inscribed diameter of 2.5 inches (64 mm) and is 0.25 inches (6.35mm) thick. Custom models are available on request.

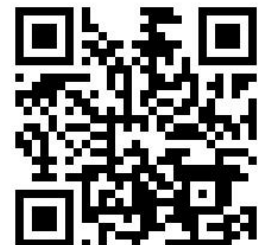


SPECIFICATIONS

Speed: 55,000 – 70,000 RPM
 Speed control: TTL External frequency
 Rotation: CW (viewed from mirror end)
 Facets: 72
 Inscribed Diameter: 2.50"
 Mirror Thickness: 0.25"
 Facet Flatness: $\lambda/6$ @633 nm
 Surface Roughness: $< 50\text{\AA}$
 Surface quality: 60/40
 Coating: UV-Visible-IR
 Dynamic track: 60 sec
 Facet-Facet: 60 sec
 Jitter: 0.03%
 Speed stability: 0.03%
 Motor: BDC
 Operating attitude: Shaft vertical, mirror up

Bearing: Self-generating air bearing
 Supply Voltage: 48 VDC +10% -5%
 Start Current: < 4.0 A
 Operating Current: < 2.5 A
 Time to speed: < 40 sec
 Operating 5 to 40C, 15 to 85% RH
 Storage -25 to 70C, 10 to 90% RH
 Maximum case temp: < 65 C
 (Requires forced air on cooling fins)
 Motor-Controller cable: 300 mm
 Controller Power-I/O cable:
 Controller envelope: 110 x 110 x 40 mm
 Start/Stop control: TTL
 At Sync: Open Collector 12V 10ma Max
 Lifetime: 20,000 hours
 Start/Stop Cycles: 20,000

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Specifications subject to change without notice.
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