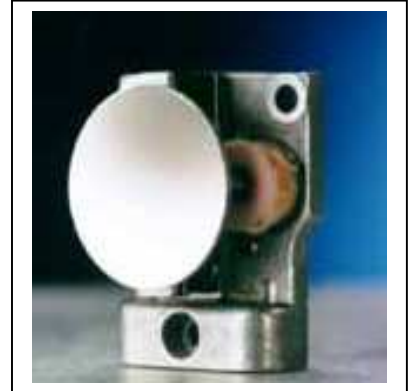


APPLICATIONS

- Inspection systems
- Bar code scanners
- Laser Printers

FEATURES and BENEFITS

- Low cost
- Low acoustic noise
- Sinusoidal scan pattern
- Virtually unlimited service life
- Wide scan angles (up to 90 degrees)
- Frequency offerings beyond 500Hz
- Mirror offerings beyond 30mm round
- Less than 6 microradian cross-axis wobble



GENERAL DESCRIPTION

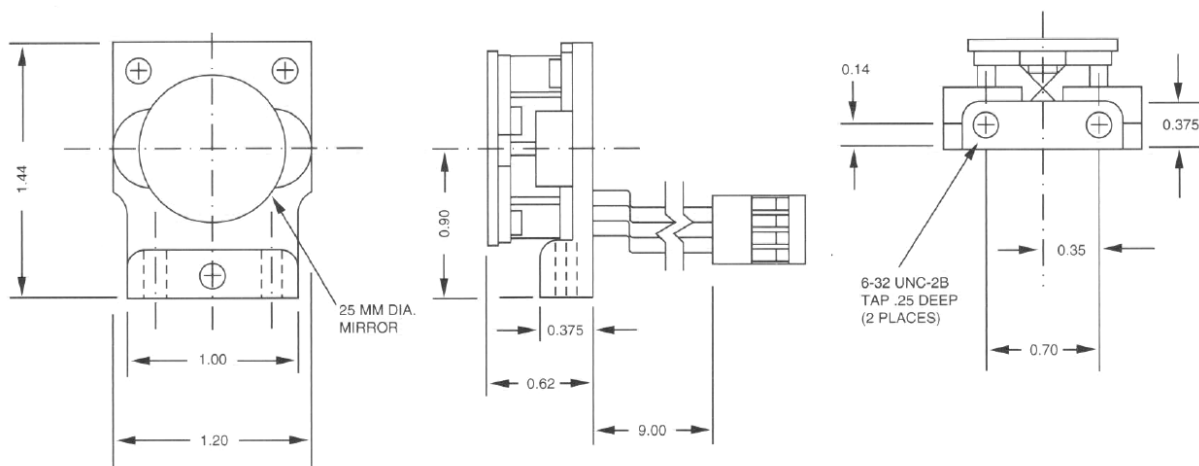
The URS (Universal Resonant Scanner) is a series of resonant-type optical scanners that deliver repeatable, precise, high performance scanning with very low drive power requirements. A glass mirror is mounted to a patented flexure arrangement, and driven by an electro-magnetic coil arrangement. The result is a sinusoidal scan pattern of constant frequency and amplitude.

The URS-series will help you reduce the size of your equipment, improve its performance, and lower the cost of your optical scanning systems. Although the application possibilities are numerous, the URS-series has proven especially well suited for bar code reading systems, laser printers and inspection systems.

Due to the mechanically stiff flexure arrangement that has relatively low resonant Q-factor, the URS scanner is insensitive to typical machine vibrations, ensuring that performance remains consistent and within tolerance. And because there are no wearing parts, the service life is virtually unlimited. The highly repeatable sinusoidal scan pattern ensures the accurate placement of lines and pixels, in both the scan and retrace directions.

The URS-series scanners are supplied with a glass mirror. The large size of the mirror translates into a small spot size for high-resolution applications and higher performance collection optics for imaging applications.

OUTLINE DRAWING





COMMON SPECIFICATIONS

The specifications shown below are common to all URS-series scanners. The scan frequency and scan angle varies depending on the model of the scanner.

Parameter	Value	Units
Cross-axis wobble	< 6	μRad
Frequency change with temperature	< -200	PPM / °C
Frequency change with amplitude	< 0.1	% with 2:1 change in amplitude
Operating temperature range	0 to 75	°C

Note that we can customize the design to your requirements, and provide scanners with or without drive electronics.

MORE INFORMATION

More information about optical scanners and actuators, including additional application hints and tips, can be found at www.ScannerMAX.com.

PATENT AND TRADEMARK INFORMATION

For more information, see US Utility Patent Number: 4,732,440

ScannerMAX is a trademark of Pangolin Laser Systems, Inc.

U.S. Headquarters:

Pangolin Laser Systems, Inc.
9501 Satellite Boulevard, Suite 109
Orlando, FL 32837 – USA
Phone: +1-407-299-2088
Fax: +1-407-299-6066

Central Europe Branch Office:

Pangolin d.o.o.
Podutiška cesta 75
1000 Ljubljana, SLOVENIA
Phone: +386-1-517-4270
Fax: +386-1-517-4275