mse

SLV
Surface Length Velocimeter
The High Accuracy Minaturized Sensor

Proprietary technology in the SLV measures the length, speed, and direction of moving surfaces with high accuracy in a scaled-down and rugged enclosure. Permanently calibrated with a fully integrated processor and housing, this sensor is the smallest of its kind on the market with unparalleled accuracy. User-friendly software allows for easy data monitoring in either industrial or research applications.

The SLV is a non-contact sensor for the remote measurement of velocity and length of moving surfaces and large particles such as sand. Each sensor contains the light source, optics, detectors, and processing electronics integrated into a compact housing. Optional features include directional velocity detection in either one or two dimensions.

Advantages of the SLV

- Highly accurate, non-contact sensor
- Compact and lightweight
- No calibration needed
- Integrated processing unit
- Compatible with modern PLCs
- User-friendly processing software included

Specifications

Measurement Specifications	
Standoff Distance *	[1] 0.4 mm (0.01") [2] 45 mm (1.8") [3] 61 mm (2.4")
Depth of Field Measurement *	[1] 0.4 mm (0.01") [2] 4.5 mm (0.18") [3] 11 mm (0.4")
Speed Range	0 to 10 m/s (33 ft/sec, or 2000 ft/min.)
Speed Meaurement Resolution	0.2 mm/s (0.008 in/sec, or 0.04 ft/min)
Speed Accuracy	99.7%
Length Measurement Resolution	0.1 mm (0.04")
Length Measurement Accuracy	99.95%

Operating Parameters	
Temperature	5 to 35°C

System Specifications	
Total Weight	0.8 kg (2 lb.)
Sensor Width	50.8 mm x 50.8 mm (2" x 2")
Sensor Length	158.4 mm (6.25")
Cable Length	2 m (6.56 ft)
Power Supply	110/240 Universal Power Supply Provided
Output	Quadrature, USB, 4-20 mA current loop; MODBUS RTU via RS485 or RS422
Software OS	Windows 10 or 11

Optional Features

- Directionally sensitive sensor: Velocity range of -10 to 10 m/s
- 2D Velocity: measurement of U and V velocity components
- Trigger Option

*Specifications Customizable Upon Request