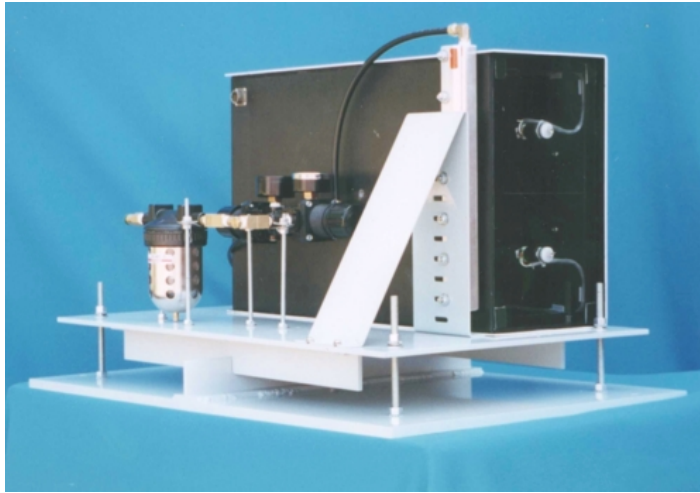


LOA-105™ Long Baseline Anemometer



The Long-baseline Optical Anemometer (**LOA-105**) uses optical scintillation to detect changes occurring in small parcels of air whose temperature and density differ from their surroundings. The **LOA™** is vastly superior to traditional type sensors and offers the reliability and proven performance you need!

OSI's LOA-105 sensor provides accurate measurement of wind or turbulence in all weather conditions. Designed for rugged, unattended operation, these sensors are designed for both interior and exterior applications.

OSI Wind & Turbulence Sensors are not affected by many of the environmental factors that cause significant errors with traditional wind sensing. Applications using traditional methods can all be

LOA-105™ Advantages

- **Advanced technology, high performance and proven reliability.**
- **Long-term reliability: operates unattended 24 hours/day, 7 days/week.**
- **Designed for low maintenance.**
- **Rugged: designed for harsh environments**
- **Easy installation and optical alignment.**
- **Self diagnostics & Testing: continuously monitors performance & informs user of trouble**
- **CE, CSA & UL Certified. OSI is ISO-9001.**

LOA-105™ Accessories:

TST-104 Field Test Kit: for testing and calibration.
LDM Limited Distance Modem: for distances > 100 ft. (max = 7 miles).

1103-152-xxx Extended Data Cable: where xxx is the total cable length in feet.

1506-107 LOA Pneumatic & Alignment Apparatus:
The pneumatic & alignment apparatus is designed to simplify the installation of the LOA

LOA-105™ Ordering Information:

Part number: LOA-105-xR

where "x" =

- A** for 115 VAC, 50/60 Hz
- B** for 230/240 VAC, 50/60 Hz
- C** for 100 VAC, 50/60 Hz
- D** for 12 VDC
- E** for 220 VAC



Optical Scientific Inc. • 2 Metropolitan Court Suite 6 • Gaithersburg, MD, 20878 • USA
Ph. 301-963 3630 • Fax 301-948-4674 • email: sales@opticalscientific.com
www.opticalscientific.com

The electro-optical design delivers an extremely sturdy and reliable sensor, immune from external influence. The sensors use AGC circuitry to eliminate the effects of LED output power drop, contaminated optics, or dusty air. Diagnostics alert the user if the signal strength is too low for normal operation. Preventative maintenance, suggested every 6 months, is as simple as cleaning the optical windows, verifying the optical alignment, and checking the calibration of the electronics assembly.

OSI's LOA-105 sensors are based on technology tested and approved by the National Oceanic and Atmospheric Administration (NOAA), and the Environmental Technology Laboratories (ETL).

LOA-105™ Specifications

Performance Specification	
C _n ² Turbulence Range	10 ⁻¹⁶ to 10 ⁻¹² m ^{-2/3}
C _n ² Turbulence Path Length	0.1 to 3 km
Wind Range	0 to 40 m/s
Wind Path Length	0.1 to 10 Km

Electronic Specification	
Power Requirements Transmitter	115 VAC, 50/60 Hz, 12 VA, or +12 VDC
Electronic Enclosure	Universal 100-240 VAC, 50/60 Hz, 40 VA, Surge Protected
Signal Output	RS-232 ASCII, 1200 baud
Transient Protection	All power & signal cables protected

Environmental Specification	
Temperature	-40° to 140° F (-40° to 60° C)
Humidity	0-100%
Precipitation / Dust	NEMA 4 type protection

Physical Specification	
Transmitter Size	8.25 x 7.75 x 22 inch (210 x 195 x 560 mm) - H x W x D
Transmitter Weight	18 lbs (8 kg)
Receiver Size	14 x 8.25 x 22 inch (355 x 210 x 560 mm) - H x W x D
Receiver Weight	30 lbs (14 kg)
Enclosure Size	16 x 12 x 10 inch (400 x 300 x 250 mm) - H x W x D
Enclosure Weight	20 lbs (9 kg)
Head & Enclosure Cable Length	15 ft (5 m)

[Specifications are subject to change without notice.]



Optical Scientific Inc. (OSi)
2 Metropolitan Court Suite 6
Gaithersburg, MD 20877
USA
Ph. 301-963-3630
Fax 301-948-4674
website: www.opticalscientific.com
email: sales@opticalscientific.com



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