

A Higher Level of Performance



Data Sheet

OptioLaser S200 Laser Sensor



For more information, please visit >
www.hawkmeasure.com

Overview

OptioLaser S200 Laser Sensor



Principle of Operation

The OptioLaser S200 series offers an optional visible alignment laser, RS232 and 4-20mA outputs. It uses an infrared semiconductor, GaAs laser diode. A light energy wavelength of approximately 905 nanometers, with a beam divergence of 3 milliradians (equal to 3ft at 1000ft), travels to the material being measured.

Any solid or liquid target in its path, will reflect back a certain percentage of the emitted energy. The OptioLaser calculates the distance, based on the transit time the laser pulse travels to the material and back.

Typical Uses

- Blocked chute detection
- Stockpile Monitoring
- Tank / Silo Level
- Collision Detection
- Truck / Machine Detection

Function

The OptioLaser S200 can be used for blockage detection, barrier detection, machine detection and stock pile monitoring and point level measurement.

Primary Areas of Application

- Asphalt
- Brewing
- Cement
- Chemical
- Dairy
- Edible oil
- Fertilizer
- Food & Beverage
- Glass
- Mining & Metals
- Oil & Gas
- Packaging
- Paint
- Paper
- Pharmaceutical
- Plastics
- Power Generation
- Refining
- Semiconductor
- Sugar
- Textile
- Water & Wastewater

Features

- Non-Contact measurements without frequent calibrations
- Easily identifies difficult targets
- Measuring range up to 1,600m (5,249ft) for natural targets
- Ruggedized Enclosure
- Targeting of the laser with optional alignment laser
- Collects level data as often as you need it
- Optional silo / Tank kit
- Measures long-distance targets, through narrow openings and from sharp angles
- Simple set up
- Output options: 4-20, 4-20 HART, RS232.

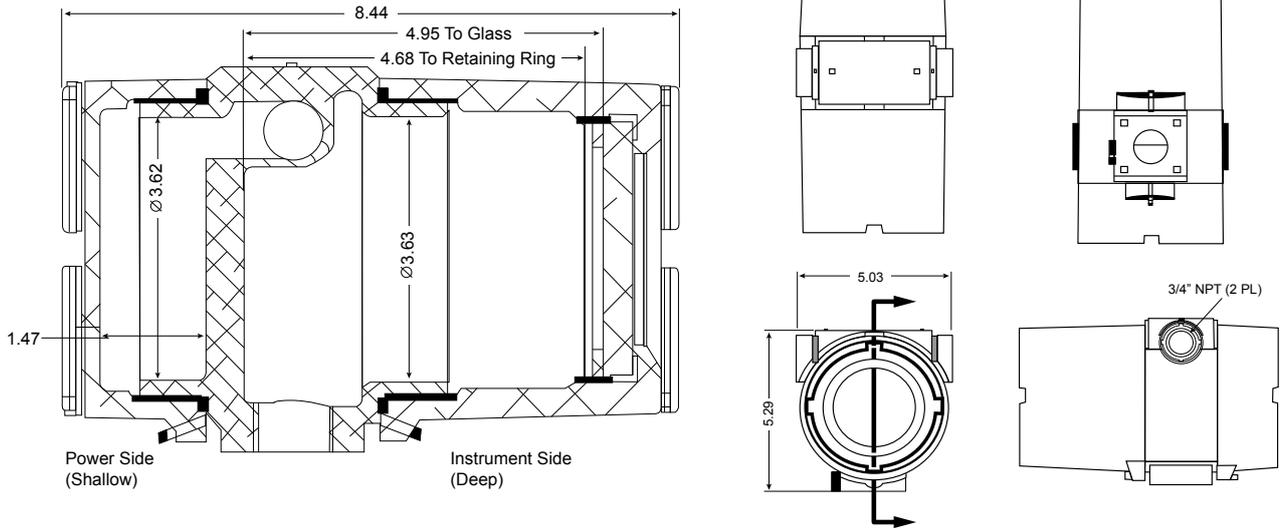
Dimensions and Options

OptioLaser S200 Laser Sensor



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The OptioLaser S200 series offers a visible alignment laser and optional RS232 and 4-20mA outputs. This output format is the most commonly used data input/output for industrial applications. In addition to a 4-20mA output, the OptioLaser S200 series offers HART capability, allowing the user to program / communicate with the laser anywhere along the 4-20 mA signal loop.



Options

The OptioLaser Series has a selection of options for use in tanks / silos.



Tank Adapter (Air Purge Ready)



4" Flange



Dust Tube



Swivel Mount



Spanner Wrench
(necessary for tightening
Tank Adapter)



S200
12VDC Power Communication Cable

Description	Part Number	Description	Part Number
S2XX 12VDC Power Comm. Cable	OL7054671	Ruggedized Enclosure Power Communication Cable	OL7054691
Spanner Wrench	OL9034501	Dust Tube	OL3004957
Swivel Mount	OL3004959	OptioLaser S200	OL7005910
4 inch Flange	OL3004960	OptioLaser S210	OL7006741
Ruggedized Enclosure	OL7024897	OptioLaser S230	OL7006751
Tank Adapter	OL7035146		

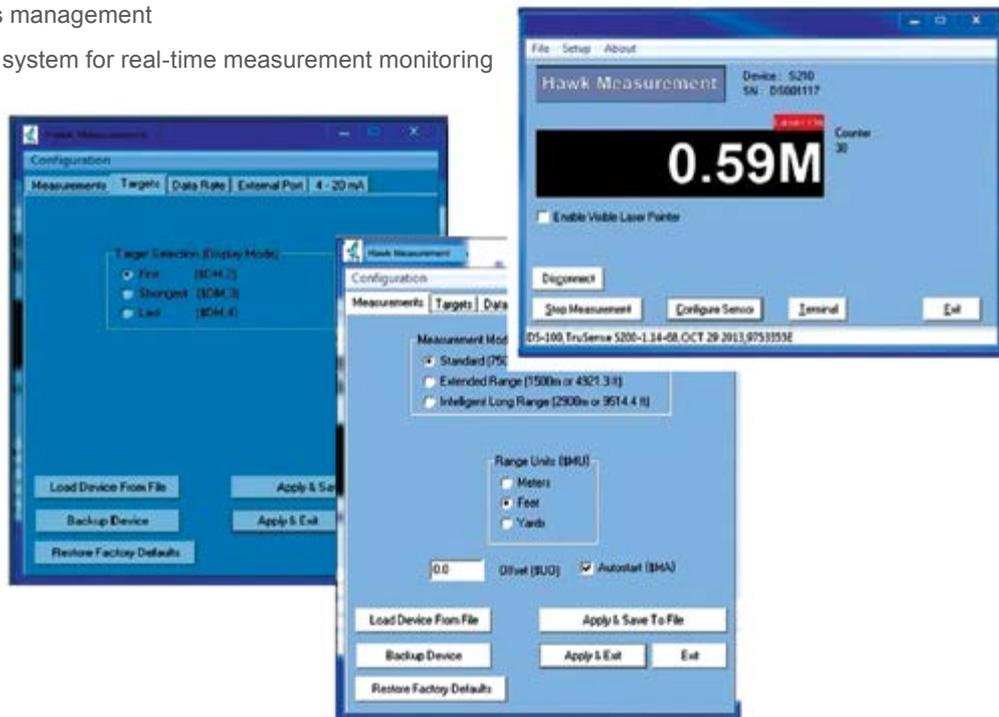
Key Advantages / Specifications

OptioLaser S200 Laser Sensor



Simply configure the parameters for your application via RS232 or HART

- Select the target mode that best fits your application
- Adjust the update rate for ideal process management
- Integrate the raw data into your control system for real-time measurement monitoring
- Easily identifies difficult targets such as non-reflective materials and liquids
- Operates without the need of any calibration
- Unaffected by background noise and vapor pressure
- Handles low dielectric substances and acoustically absorbing materials
- The OptioLaser S200 is perfect for applications where a compact size and light weight is a must.



Performance

- Min range: 1.5ft (46cm)
- Max range: 5,429ft (1,600m), non-reflective target
- Accuracy: +/- 1.6" (4cm)
- Data output rate: <1 Hz up to 14Hz, depending on target
- Target Modes: First, strongest, last, first-second, third, last-second to last, first-strongest-last, first-second-third-strongest-last.

Optical and Electrical

- Wavelength: 905 nm (Infrared)
- Divergence: 3 mrad equal to 1ft (30cm) beam diameter at 328ft (100 m)
- I/O: 4-20, 4-20 HART, RS232 with alignment laser
- Input power: 12VDC recommended (12-24 VDC)
- Current draw: measuring = 150mA, Standby - 40mA.

Physical

- Dimensions: 5" (12.7cm) dia. X 10" (25.4cm) length
- Conduit fitting: 3/4" NPT
- Weight: 8lbs (3.62kg).

Environmental

- Eye safety: Class 1, 7mm (FDA, CFR21), Class 1 m (IEC 60825 - 1:2001)
- Shock / vibration: ML-STD-810
- Moisture: IP54
- Operating temperature: -20°F to 140°F (-28 °C to 50°C).

Approvals

- Type 4x
- IP66

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Additional product warranty and application guarantees upon request.
Technical data subject to change without notice.

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