



# Dissolved Oxygen: Hach LDO sc Probe, Model 2

## Applications

- Wastewater
- Industrial
- Drinking Water



## Accurate monitoring of dissolved oxygen in source water and for precise aeration process control

### No Calibration Required

The Hach LDO sc probe uses luminescent dissolved oxygen technology. Traditional membrane-style DO probes require sensor calibration, which increase maintenance requirements.

### No Membranes to Replace

There is virtually no maintenance with Hach's breakthrough luminescent technology. There are no membranes to replace, no electrolyte solution to replenish, and no anode or cathode to clean.

### No Missed Cleaning Cycles

The Hach LDO sc probe is equipped with Prognosys, a predictive diagnostic system, that allows you to be proactive in your maintenance by alerting you to upcoming instrument issues. Know with confidence whether changes in your dissolved oxygen level measurements are due to changes in your

instrument or your water. To make sure routine cleaning cycles are never missed, the probe offers operators customizable diagnostic alert indicators, ensuring the probe can operate at its maximum performance level.

Customizable service indicators trigger a service message so that a cleaning cycle is never missed.

### No Drift Technology

Cutting-edge 3D calibration procedure is conducted prior to shipping, the DO probe will not drift and is more accurate than ever before, compared to membrane style probes.

### No Complications

Our newest Model 2 DO probe has a robust design with a smaller footprint allows for easier handling with enhanced durability.

## Technical Data\*

<b>Range</b>	0 - 20.00 ppm
	0 - 20.00 mg/L
	0 - 200% saturation
<b>Accuracy</b>	± 0.05 ppm Below 5 ppm
	± 0.1 ppm Above 5 ppm
<b>Response Time</b>	$T_{90} < 40$ s
	$T_{95} < 60$ s
<b>Resolution</b>	0.01 ppm (mg/L)
	0.1% saturation
<b>Repeatability</b>	± 0.1 ppm (mg/L)
<b>Flow Rate</b>	None required

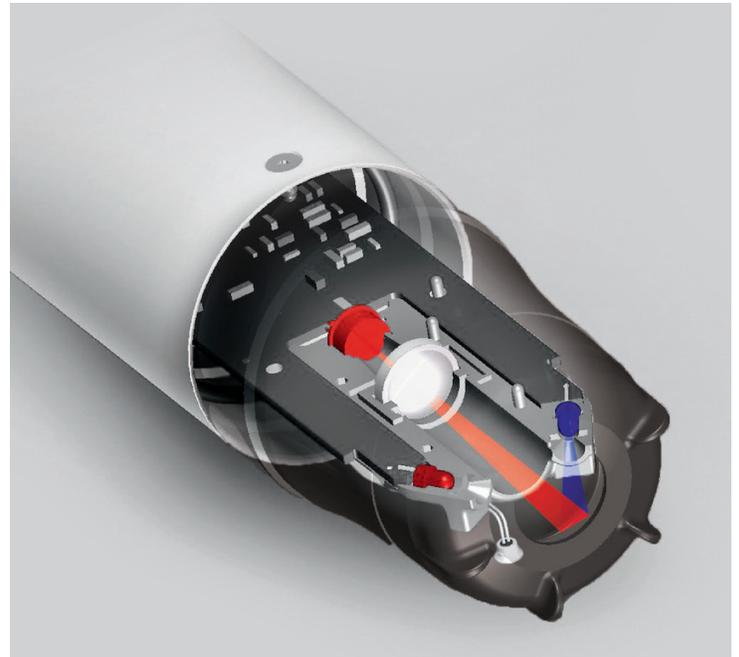
<b>Sensor Immersion Depth</b>	Down to 34 m (112 ft.), 345 kPa (50 psi), maximum; accuracy may not be maintained at this depth
<b>Transmission Distance</b>	400 m (1312 ft.) maximum when used with a termination box
<b>Cable Length</b>	10 m (options with 30 m, 60 m)
<b>Dimensions (D x L)</b>	48.25 mm x 254 mm
<b>Weight</b>	1 kg (2.2 lbs), probe only
<b>Warranty</b>	36 months

*\*Subject to change without notice.*

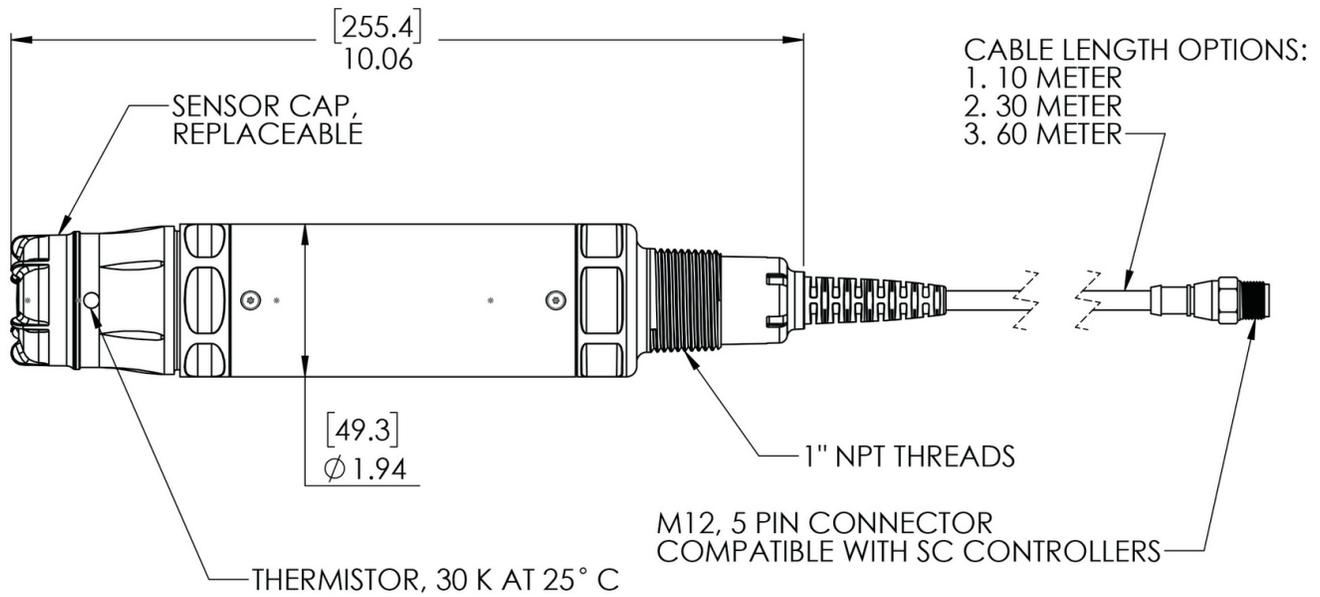
## Principle of Operation

The Hach LDO sc sensor is coated with a luminescent material. Blue light from an LED is transmitted to the sensor surface. The blue light excites the luminescent material. As the material relaxes it emits red light. The time it takes for the red light to be emitted is measured. Between the flashes of blue light, a red LED is flashed on the sensor and used as an internal reference.

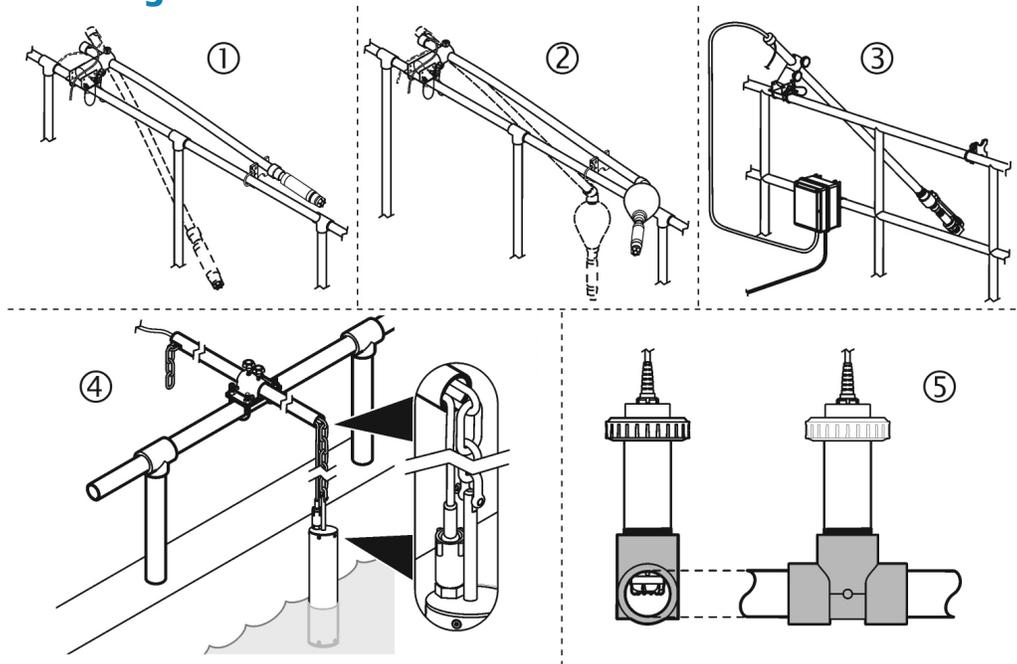
Increased oxygen in the sample decreases the time it takes for the red light to be emitted. The time measurements correlate to the oxygen concentration.



## Dimensions



## Installation / Mounting



1 Rail mount

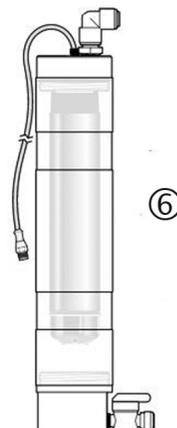
2 Float mount

3 Air blast system mount

4 Chain mount

5 Union mount

6 Flow cell mount



## Order Information

### Sensor

<b>9020000</b>	Hach LDO 2 sc Dissolved Oxygen Probe
<b>9020000-UPGRADE</b>	Hach LDO 2 sc Dissolved Oxygen Probe, with Mounting Conversion Adapter

Please note that a Hach SC controller is required to operate the LDO sc Sensor, controller must be purchased separately.

### Accessories

<b>5867000</b>	Digital Termination Box
<b>5796000</b>	Digital Extension Cable, 7.7 m (25 ft.)
<b>5796100</b>	Digital Extension Cable, 15 m (50 ft.)
<b>5796200</b>	Digital Extension Cable, 30 m (100 ft.)
<b>6860000</b>	High Output Air Blast Cleaninn System, 115 VAC
<b>6860100</b>	High Output Air Blast Cleaning System, 230 Vac
<b>9253500</b>	Air Blast Hardware Components

### Replacements and Parts

<b>9021100</b>	LDO sc Model 2 Sensor Cap Replacement Kit
----------------	---

### Mounting Kits

<b>9253000</b>	Pole Mount Kit, PVC
<b>9253100</b>	Ball Float Mount Kit, PVC
<b>9257000</b>	Union Mount Kit, PVC
<b>9253400</b>	Mounting Conversion Adapter, LDO sc Model 1 to LDO sc Model 2
<b>7300800</b>	1" NPT sc Sensors Flow Cell

### Controllers

#### SC4500 Digital Controllers

<b>LXV525.99A11551</b>	SC4500 Controller, Prognosys, 5x mA Output, 2 digital Sensors, without plug
<b>LXV525.99A11541</b>	SC4500 Controller, Prognosys, 5x mA Output, 1 digital Sensor, 1 mA Input, without plug
<b>LXV525.99A11501</b>	SC4500 Controller, Prognosys, 5x mA Output, 1 digital Sensor, 100-240 VAC, without power cord

#### SC1000 Digital Controllers

<b>LXV402.99.00002</b>	SC1000 Display Module
<b>LXV400.99.1R572</b>	SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x 4-20mA In, 4x Relays, 100-240 V AC with Conduits
<b>LXV400.99.1B572</b>	SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x 4-20mA In, Modbus® RS485, 4x Relays, 100-240 V AC with Conduits
<b>LXV400.99.1F572</b>	SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x 4-20mA In, Profibus® DP, 4x Relays, 100-240 V AC with Conduits
<b>LXV400.99.1R582</b>	SC1000 Probe Module, 6 Sensors, 4x 4-20mA Out, 4x 4-20mA In, 4x Relays, 100-240 V AC with Conduits

Additional controller configurations are available. Please contact Hach Technical Support or your Hach representative.



This instrument connects to Claros, Hach's innovative Water Intelligence System. Claros allows you to seamlessly connect and manage instruments, data, and process – anywhere, anytime. The result is greater confidence in your data and improved efficiencies in your operations. To unlock the full potential of Claros, insist on Claros Enabled instruments.



With Hach Service, you have a global partner who understands your needs and cares about delivering timely, high-quality service you can trust. Our Service Team brings unique expertise to help you maximize instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.



**World Headquarters: Loveland, Colorado USA | [hach.com](http://hach.com)**

**United States** 800-227-4224 fax: 970-669-2932 email: [orders@hach.com](mailto:orders@hach.com)  
**Outside United States** 970-669-3050 fax: 970-461-3939 email: [int@hach.com](mailto:int@hach.com)

©Hach Company, 2023. All rights reserved.

In the interest of improving and updating its equipment, Hach Company reserves the right to alter specifications to equipment at any time.

**DOC053.53.35335.Aug23**