



# 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\*

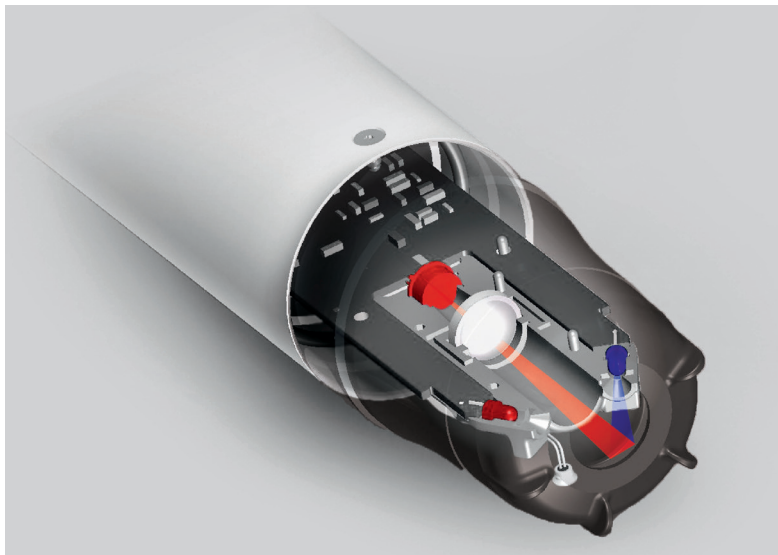
<b>Measuring range</b>	0 - 20.00 ppm	<b>Flow rate</b>	None required
	0 - 20.00 mg/L	<b>Immersion depth</b>	Down to 34 m (112 ft.), 345 kPa (50 psi), maximum; accuracy may not be maintained at this depth
	0 - 200% saturation	<b>Transmission distance</b>	400 m (1312 ft.) maximum when used with a termination box
<b>Accuracy</b>	Below 5 ppm: $\pm 0.1$ ppm	<b>Cable length</b>	10 m (options with 30 m, 60 m)
	Above 5 ppm: $\pm 0.2$ ppm	<b>Dimensions (D x L)</b>	48.25 mm x 254 mm
<b>Response time</b>	$T_{90} < 40$ s	<b>Weight</b>	1 kg (2.2 lbs), probe only
	$T_{95} < 60$ s	<b>Warranty</b>	36 months
<b>Resolution</b>	0.01 ppm (mg/L)		
	0.1% saturation		
<b>Repeatability</b>	$\pm 0.1$ ppm (mg/L)		

*\*Subject to change without notice.*

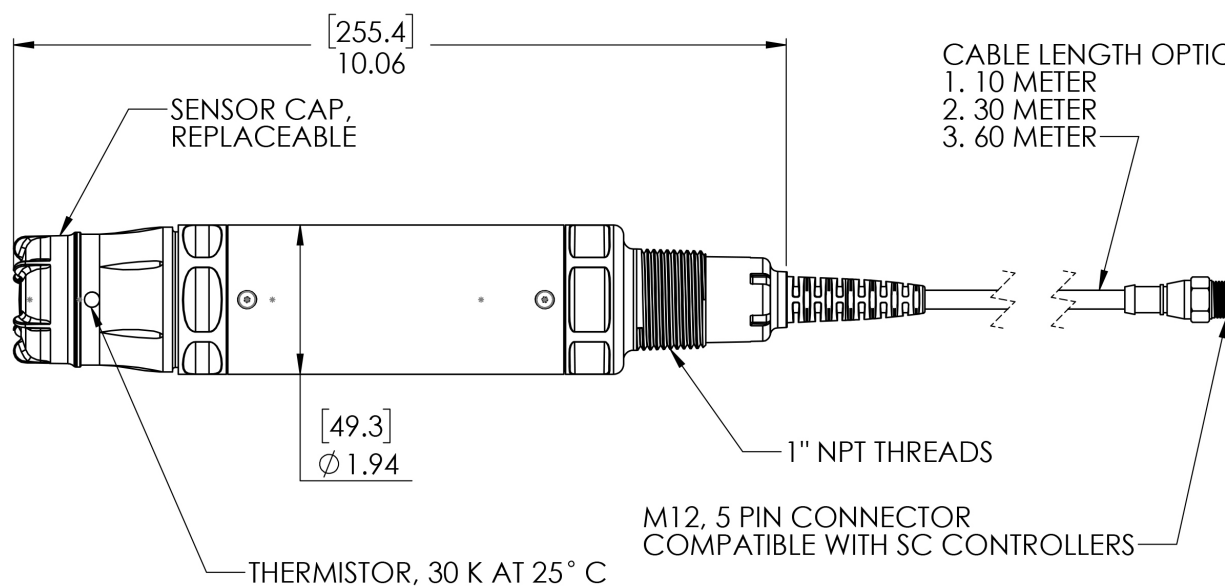
## Principle of Operation

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.

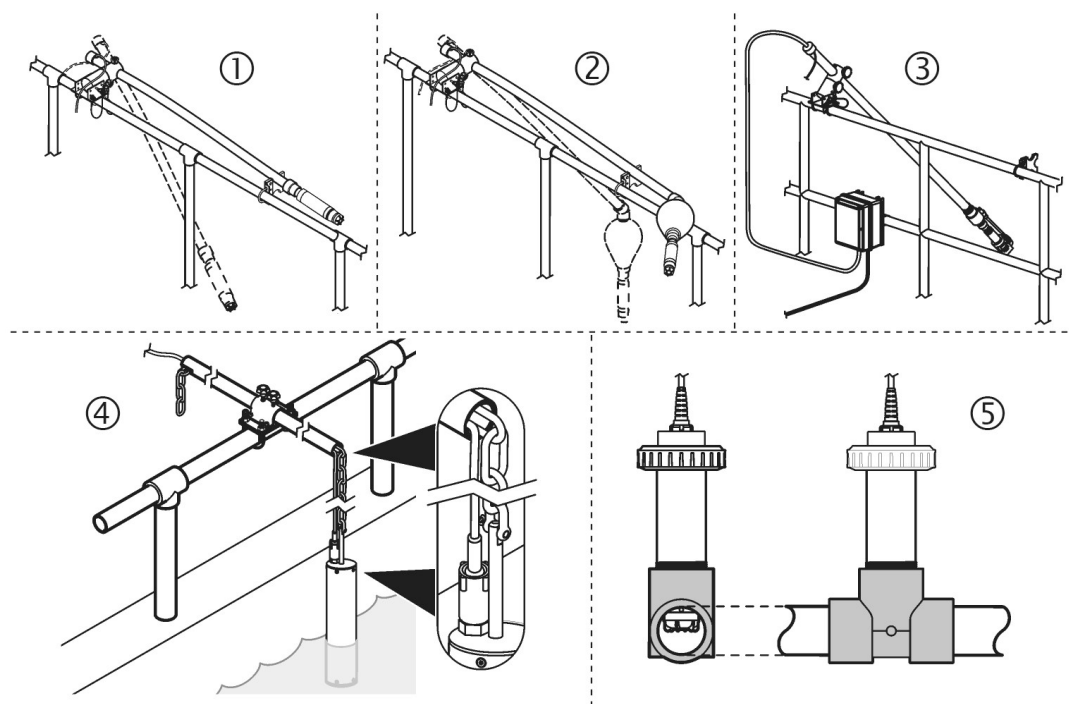
Increased oxygen in the sample decreases the time it takes for the red light to be emitted. The time measurements correlate to the oxygen concentration.



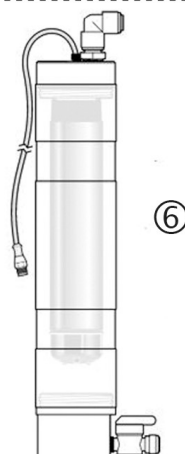
## Dimensions



## 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>LXV416.99.20001</b>	LDO 2 sc Process Sensor for Dissolved Oxygen, 10 m cable
<b>LXV416.99.20W01</b>	LDO 2 sc Process Sensor for Dissolved Oxygen, 10 m cable, extended warranty

*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>6860100.99.0002</b>	High Output Airblast Cleaning System, 230 VAC
<b>LZY812</b>	LDO 2 sc Cleaning Head

### Replacements and Parts

<b>9021150</b>	Replacement Sensor Cap Kit for LDO 2 sc
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### Mounting Kits

<b>LZY714.99.21810</b>	Pole mounting hardware DO, swivel, 1" NPT, PVC pole 2 m
<b>LZX914.99.42200</b>	Ball float mounting kit
<b>LZX914.99.11200</b>	Chain mount kit for electrochemical sensor
<b>9253400</b>	Mounting Conversion Adapter, LDO sc Model 1 to LDO sc Model 2
<b>7300800</b>	pHD sc Flow Cell

### Controllers

#### SC4500 Digital Controllers

<b>LXV525.99A11551</b>	SC4500 Controller, Prognosys, 5x mA Output, 2 Digital Sensors, 100-240 VAC, without power cord
<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>LXV402.99.00001</b>	SC1000 Display Module
<b>LXV400.99.2R121</b>	SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x Relays, 110-240 VAC, EU Cord
<b>LXV400.99.2R521</b>	SC1000 Probe Module, 4 Sensors, 4x 4-20mA Out, 4x 4-20mA In, 4x Relays, 110-240 VAC, EU Cord
<b>LXV400.99.2B031</b>	SC1000 Probe Module, 6 Sensors, Modbus RS485, 4x Relays, 110-240 VAC, EU Cord
<b>LXV400.99.2F031</b>	SC1000 Probe Module, 6 Sensors, Profibus DP, 4x Relays, 110-240 VAC, EU Cord

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

## Enable the Benefits of Smart Monitoring

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.

## Hach Service Protects Your Investment

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 maximise instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk.

