Hach LDO® Model 2, DO Probe with Luminescent Dissolved Oxygen Technology

**Product #:** 9020000
**USD Price:** Contact Hach
**Available**

**Accurate process monitoring of dissolved oxygen in water for precise aeration control**

Hach’s next generation DO Probe, the LDO Model 2 (Luminescent Dissolved Oxygen), accurately measures dissolved oxygen levels in water by utilizing luminescent dissolved oxygen technology within the O₂ sensor (oxygen sensor) cap ensuring high levels of accuracy. The Hach LDO probe requires no calibration and can be used right out of the box. Using this DO probe to monitor dissolved oxygen levels in your water applications saves time and money through minimum maintenance (no electrolyte solution) and overall reduction in aeration blower energy usage.

An improved body design optimizes the probe’s temperature sensor to provide an even faster response time to process variability as well. The probe comes with a three year warranty, and the sensor cap has a two year warranty.

**No Calibration Required**
The Hach LDO probe uses luminescent dissolved oxygen technology. Traditional DO probes require DO 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 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**
Cutting-edge 3D calibration procedure is conducted prior to shipping, the DO probe will not drift and is more accurate than ever before.

**No Complications**
Our newest DO probe has a robust design with a smaller footprint allows for easier handling with enhanced durability.

**Specifications**

<table>
<thead>
<tr>
<th>Accuracy:</th>
<th>± 0.05 ppm Below 5 ppm</th>
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<tbody>
<tr>
<td>Accuracy 2:</td>
<td>± 0.1 ppm Above 5 ppm</td>
</tr>
<tr>
<td>Accuracy 3:</td>
<td>Temperature: ± 0.2</td>
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<tr>
<td>Accuracy 4:</td>
<td>0.2 °C</td>
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<tr>
<td>Body material:</td>
<td>Stainless</td>
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<tr>
<td>Cable Length:</td>
<td>10 m (33 ft)</td>
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<tr>
<td>Calibration Method:</td>
<td>All Probes are factory calibrated and ready to use</td>
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</table>
Air Calibration: one point, 100% water saturated air

Sample Calibration: comparison to standard instrument, or comparison to Winkler Titration method

**Communication:** Modbus

**Diameter:** 48.25 mm

**Dimensions (D x L):** 48.25 mm x 254 mm

**Flow:** no flow required

**Flow Rate:** None required

**Hazardous Location Ratings:** ETL listed (cETLus marked) to Canadian and US General Safety and Hazardous (Class I, Div. 2) Locations

**Interferences:** No Interferences from the following: \(H_2S, pH, K^+, Na^+, Mg^{2+}, Ca^{2+}, NH_4^+, Al^{3+}, Pb^{2+}, Cd^{2+}, Zn^{2+}, Cr\) (total), \(Fe^{2+}, Fe^{3+}, Mn^{2+}, Cu^{2+}, Ni^{2+}, Co^{2+}, CN^-, NO_3^-, SO_4^{2-}, S_2-, PO_4^{3-}, Cl^-,\) anion active surfactants, crude oils, \(Cl_2 < 4\) ppm

**Length:** 254 mm

**Measurement Range 2:** 0 - 20.00 mg/L

**Measurement Range 3:** 0 - 200 % saturation

**Operating Temperature Range:** 0 - 50 °C

**Options:** None

**Pressure Range:** max 3.5 bar

**Range:** 0 - 20.00 ppm

**Region:** US

**Repeatability:** ± 0.1 ppm (mg/L)

**Resolution:** 0.01 ppm (mg/L)

**Response Time:** To 40 s

**Sensor Cable:** 10 m (31 ft.) terminated with quick-disconnect plug

**Sensor Immersion Depth:** Pressure Limits at 345 kPa 345 kPa (50 psi), maximum; accuracy may not be maintained at this depth

**Sensor Thread:** Outer thread

**Storage Conditions:** -20 °C to 70 °C

**Transmission Distance:** 100 m (328 ft.) maximum

**Warranty:** Probe body: 3 years

Sensor cap: 2 years

in standard applications

**Weight:** 1 kg

**Wetted Materials:** Sensor Cap: Acrylic; Probe Body: CPVC, Polyurethane, Viton, Noryl, 316 Stainless Steel

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**What's in the box?**

Includes: sensor with cable, calibration bags, and manual

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**Required Accessories**

- SC1000 Multi-parameter Universal Controller Display Module (without GSM/GPRS) (Item LXV402.99.00002)
• SC200 Universal Controller: 100-240 V AC with two digital sensor inputs and two 4-20 mA outputs  (Item LXV404.99.00552)
• SC200 Universal Controller: 100-240 V AC with two digital sensor inputs, Modbus RS232/RS485 and two 4-20 mA outputs  (Item LXV404.99.01552)
• SC1000 Probe Module, 6 sensors, Prognosys Module, Modbus RS485, 100-240V AC, no power cord  (Item LXV400.99.1H082)
• SC1000 Probe Module, 8 sensors, Prognosys Module, 100-240V AC, no power cord  (Item LXV400.99.1G092)
• SC1500 Controller, 6 SENS 8mA OUT 110V/COND EXT MOD  (Item LXV446.99.103N1)
• SC1500 Controller, 6 SENS 8mA OUT 110V/COND 4 REL/C EXT MOD  (Item LXV446.99.1R3S1)
• SC4200c Controller, North American Cellular Modem, mA out, 2 digital Sensors, w/o plug  (Item LXV524.99.01120)
• SC4200c Controller, North American Cellular Modem, Profibus, 2 digital Sensors, w/o plug  (Item LXV524.99.01720)