

LDO101-05, LDO101-10, LDO101-15, or LDO101-30 Probe

CAUTION

BEFORE ATTACHING THE PROBE FOR THE FIRST TIME: Set the date and time in the meter before attaching the probe for the first use. If the meter date and time are incorrect when the probe is installed, the probe will retain this incorrect time stamp for the remainder of its service life, even if the meter time and date have subsequently been corrected.

Safety

To ensure that the protection provided by this equipment is not impaired, do not use or install this equipment in any manner other than that specified in this document.

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|  | This symbol, if noted on the instrument, references the instruction manual for operation and/or safety information. |
|  | <p>Electrical equipment marked with this symbol may not be disposed of in European public disposal systems after 12 August of 2005. In conformity with European local and national regulations (EU Directive 2002/96/EC), European electrical equipment users must now return old or end-of life equipment to the Producer for disposal at no charge to the user.</p> <p>Note: For return for recycling, please contact the equipment producer or supplier for instructions on how to return end-of-life equipment, producer-supplied electrical accessories, and all auxiliary items for proper disposal.</p> |

CAUTION

When deploying the probe at a distance, toss the probe body with a gentle underhand throw. Swinging the probe by the cable may cause injury to the user, will cause severe strain on the probe cable, and will shorten service life. Damage incurred in this manner will not be covered by the product warranty.

Overview

Figure 1 shows the LDO101-05, LDO101-10, LDO101-15, or LDO101-30 Probe, a luminescent dissolved oxygen (LDO) probe with a bell-and-ring shroud. The probe can be equipped with a 5-, 10-, 15-, or 30-meter cable. The probe is designed for fast, accurate measurement of dissolved oxygen concentration in wastewater, drinking water, and general applications.

Each probe is supplied with color-code clips for easy identification. There are two each of five colors (black, yellow, light green, light blue, and magenta), one for the probe and one for the cable connector. Attach a pair of color-code clips to the probe and cable connector.

Replacement sensor caps (including the iButton®*) are available (Cat. No. 58112-00).

Optional probe-cable depth markers are also available (Cat. No. 58286-10).

* iButton is a registered trademark of Maxim Integrated Products, Inc.

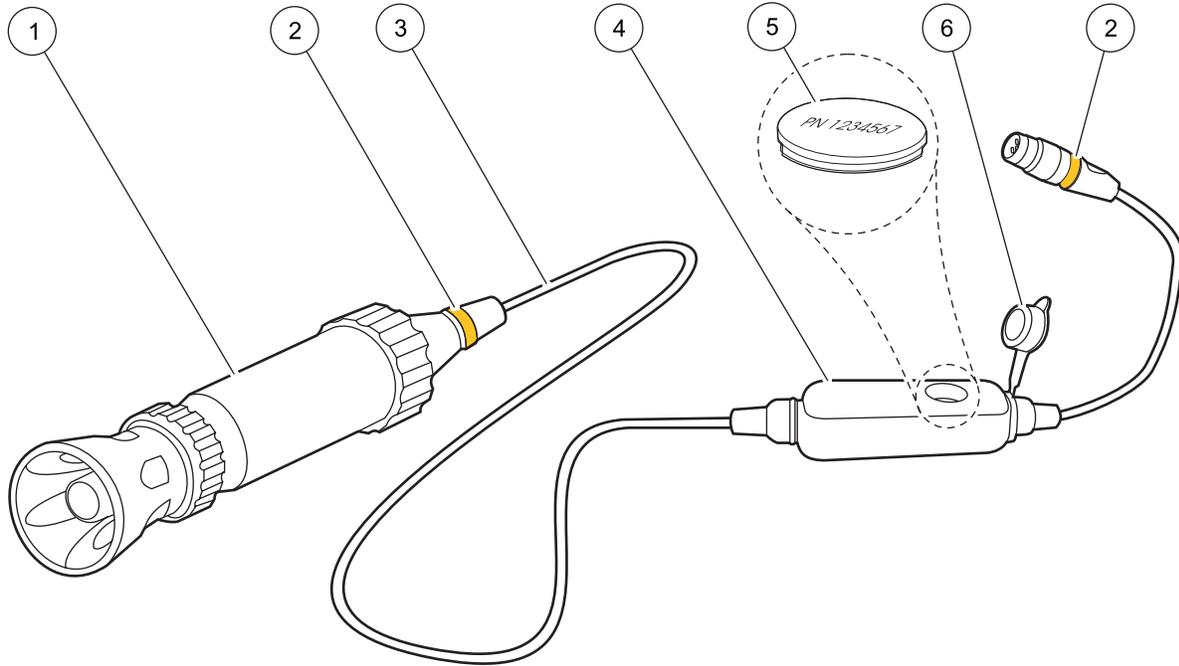


Figure 1 The LDO101-05, LDO101-10, LDO101-15, or LDO101-30 Probe

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|---|--------------------------------------------|---|------------------------|
| 1 | Probe Body with Shroud | 4 | Pressure-sensor Module |
| 2 | Locations for Color Code Clip Installation | 5 | iButton® |
| 3 | 5-, 10-, 15-, or 30-meter Cable | 6 | Cap |

Removing and Replacing the Shroud

Important Note: Do not remove the cable from the probe. Doing so can damage the probe.

The LDO101 Probe comes fully assembled. Remove the shroud to change the sensor cap or calibrate the probe. Refer to the Sensor Cap Instruction Sheet for information on changing the sensor cap (Cat. No. 5811289).

Removing the Shroud

1. Hold the shroud (Figure 2, item 1) and unscrew the locking ring (Figure 2, item 2).
2. Pull the shroud toward the sensor end of the probe. Resistance will be felt until the locking ribs on the shroud disengage from the locking groove on the probe body.
3. Completely remove the shroud and locking ring and set them aside.

Replacing the Shroud

1. Place the locking ring (Figure 2, item 2) on the probe body with the threads toward the shroud (Figure 2, item 1).
2. Slide the shroud onto the probe until the locking ribs (Figure 2, item 4) are seated in the locking groove (Figure 2, item 7).
3. Screw the locking ring onto the threads.
4. Hold the shroud and hand-tighten the locking ring.

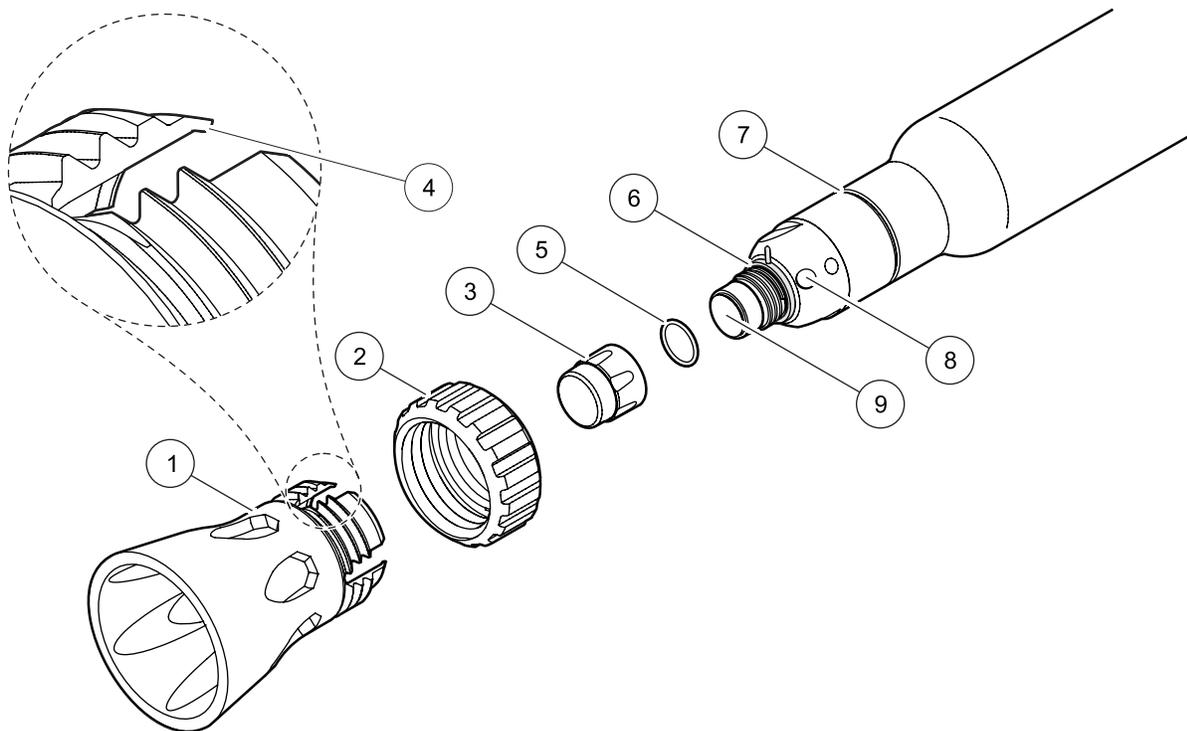


Figure 2 Shroud and Sensor Cap Removal

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|---|-------------------|---|--------------------|
| 1 | Shroud | 6 | Cap Seal |
| 2 | Locking Ring | 7 | Locking Groove |
| 3 | Sensor Cap | 8 | Temperature Sensor |
| 4 | Locking Ribs (4x) | 9 | Sensor Lens |
| 5 | O-ring | | |

Calibration

Each lot of LDO sensor caps is factory-calibrated. For best performance, a one-time calibration initialization can be performed when a new sensor is installed. Additional calibrations can be performed but are not required.

For calibration steps, refer to the *HQ Portable Meters User Manual*. The IntelliCAL™ probes store the current calibration and calibration history in the probe memory. It is not necessary to recalibrate when moving a calibrated probe from one meter to another.

Maintenance

Important Note: Do not scrub the sensor cap or the sensor lens.

Important Note: Do not use organic solvent solutions such as acetone or methanol with the LDO101 sensor cap. These solvents will damage the plastic sensor cap.

General Maintenance

- After use, visually inspect the sensor cap. Use optical tissue or a cotton swab with soapy water to clean the sensor cap (Figure 2, item 3). Rinse with fresh water.
- Before measuring a new sample, rinse the probe with deionized water and blot dry with a paper towel.
- If the cap is sealed properly using the top O-ring seal, no water should be present between the sensor cap and the clear plastic sensor lens (Figure 2, item 9) at the top of the probe. If water is present, remove the cap and thoroughly dry the inside of the cap and the sensor lens. The cap may require replacement (Cat. No. 58112-00).

Storage

- Between uses, store the probe dry in ambient conditions.

Specifications

Specifications are subject to change without notice.

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|----------------------------------|---------------------------------------------------------------------------------------------|
| Dissolved Oxygen Range | 0.1–20.0 mg/L (ppm) 1–200% saturation |
| Dissolved Oxygen Accuracy | ± 0.1 mg/L for 0–8 mg/L ± 0.2 mg/L for greater than 8 mg/L |
| % Saturation Resolution | 0.1% |
| % Saturation Accuracy | ± 1% of reading |
| Temperature Range | 0–50 °C |
| Temperature Resolution | 0.1 °C |
| Temperature Accuracy | ± 0.3 °C |
| Pressure Resolution | 1 hPa |
| Pressure Accuracy | ± 0.8% |
| Warranty | Probe is covered by a three-year warranty. Sensor cap is covered by a one-year warranty. |



FOR TECHNICAL ASSISTANCE, PRICE INFORMATION AND ORDERING:
 In the U.S.A. – Call toll-free 800-227-4224
 Outside the U.S.A. – Contact the HACH office or distributor serving you.
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