L-CAL
Portable Liquid Formazin Turbidity Calibration Kit

Product Description

Pyxis Lab has developed a portable and reusable liquid-state turbidity calibration kit for rapid calibration of the Pyxis LT-73X Series inline ultra-low turbidity sensors. The LT-73X Series ultra-low turbidity sensors are factory calibrated using certified Formazin liquid standards. The L-CAL calibration kit allows users to calibrate all LT-73X Series ultra-low turbidity sensors using smaller volumes of Formazin turbidity calibration standards providing an affordable and reusable solution for long term sensor reliability. The unique design of the L-CAL liquid calibration kit allows the LT-73X sensor to be easily inserted and calibrated with the sensor in a horizontal position, allowing air bubbles to be evacuated through the integrated air-vent line ensuring superior accuracy of the sensor calibration.   The L-CAL has an easy to remove lid allowing users to fill and empty the calibration kit with DI water for vessel/sensor cleaning and Formazin calibration standards for sensor calibration.

L-CAL Liquid Turbidity Calibration Kit

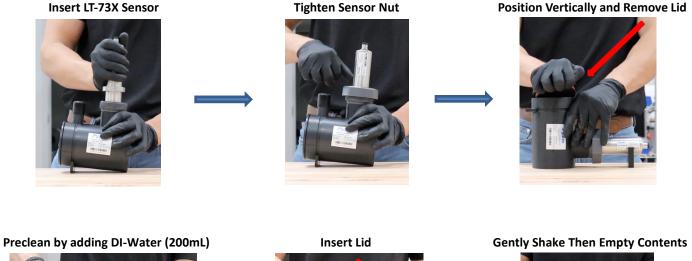## Turbidity Calibration Principals & Considerations

The precision, resolution and the low detection limit of the LT-73X Series sensors are not affected by the calibration method, regardless of using certified Formazin standards and the L-CAL kit. The calibration only affects the turbidity sensor accuracy. The nature of turbidity measurement makes an absolute turbidity value not easily obtainable for any sensor manufacturer although proper standards and methods are followed. For example, turbidity values greater than 1.0 NTU measured on real-world samples with different sensors, even from the single manufacturer, could differ significantly. For ultra-low turbidity (less than 0.3 NTU) measurement using the same methods (ISO-7027 or EPA-180.1), it is likely that the values from different sensors can agree within 0.05 NTU.   As such, the user should choose a calibration method and remain with the same calibration method for consistency.

Specifications

Item	L-CAL Portable Liquid Formazin Calibration Kit					
P/N	53247					
Sensor Name	LT-736	LT-736B	LT-737	LT-737B	LT-739	LT-739B
Calibration	**Recommended Calibration Standard Solution Range**					
Near Zero/Low-Range (0.05NTU Recommended for Calibration)	Bubble Free DI Water or Sample <0.1 NTU					
Mid-Range	5 – 50 NTU		1 – 2 NTU		5 – 10 NTU	
High-Range	500 – 1000 NTU		3 – 5 NTU		20 – 40 NTU	

L-CAL Portable Liquid Formazin Calibration Kit Use Method

After removing the LT-73X sensor, gently wipe off the flat distal end with a soft cloth to ensure it is clean.   The LT-73X Sensor should then be calibrated using the L-CAL portable liquid calibration kit using the following steps, and wirelessly calibrated via the uPyxis Mobile or Desktop APP.   Please refer to LT-73X Series Operation Manual for details.
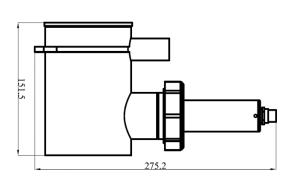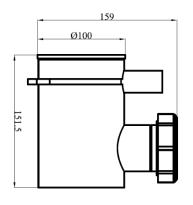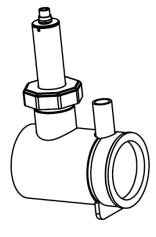
Insert LT-73X Sensor

Tighten Sensor Nut

Position Vertically and Remove Lid

Preclean by adding DI-Water (200mL)

Insert Lid

Gently Shake Then Empty Contents

Add Calibration Standard (500mL)

Insert Lid and Remove Air Bubble Vent Line Cap

PROCEED TO CALIBRATING SENSOR Via uPyxis APP

NOTE Sensor Brace Included with L-CAL Kit for Stability
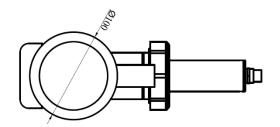
WATCH PROCEDURE VIDEO https://www.youtube.com/watch?v=1MuJM5Q5VB4
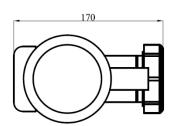
L-CAL Diagram (mm)

Order Information   P/N

L-CAL Kit *(Portable Liquid Formazin Calibration Kit for LT-73X Series Sensors)*   53247

Optional Accessories Information   P/N

MA-CR Bluetooth Adapter *(8Pin Adapter Enables Wireless Calibration w/uPyxis APP)*   MA-CR

Power*PACK-1* *(Single Chanel Auxiliary Power Supply w/Bluetooth For ST/LT Series Sensors)*   MA-BLE-1

Pyxis Turbidity Calibration Std – 2.0 NTU *(4,000mL)*   57010-2L

Pyxis Turbidity Calibration Std – 5.0 NTU *(4,000mL)*   57010-5L

Pyxis Turbidity Calibration Std – 10.0 NTU *(4,000mL)*   57010-10L

Pyxis Turbidity Calibration Std – 15.0 NTU *(4,000mL)*   57010-15L

Pyxis Turbidity Calibration Std – 30.0 NTU *(4,000mL)*   57010-30L