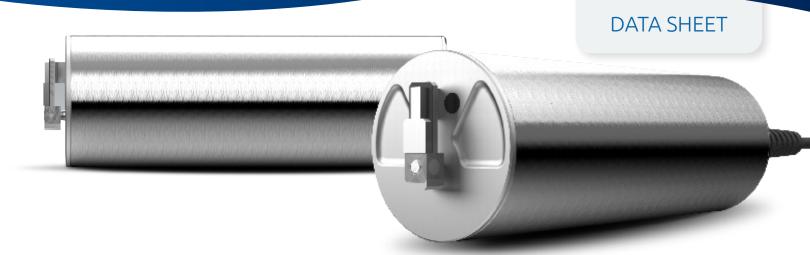
# **Pyxis**®

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## LT-63X Series Auto-Cleaning, Submersible Turbidity Sensor

#### **Product Description**

The LT-63X series sensor platform (including the LT-631, LT-632 and LT-633) are submersible, waterproof, self-cleaning sensors utilize dual infrared detection technology to measure turbidity in the ranges of 0 to 4000 NTU. The sensor automatically compensates for disturbances caused by flow fluctuations, climate change, color change or changes in turbidity. The instrument design is virtually maintenance-free, and the self-cleaning capability of the sensor prevents deviations caused by air bubbles and suspended solids particulate.

It is powered by a 24 VDC/6W power supply and offers fully integrated 4-20 mA and RS-485 Modbus output signals for connection to any controller, PLC or DCS network. When clean, the unique Pyxis sensor design offers a stability of <0.1 NTU for up to 1-year without calibration. Additionally, this sensor platform can be accessed via the MA-CR Bluetooth/USB adapter for local display, diagnostics, auto-wiper programming, sensor cleaning and calibration when using the uPyxis APP for mobile or desktop devices. The LT-63X series sensor is ideal for use in raw water, surface water, storm water, process water and discharged water applications.

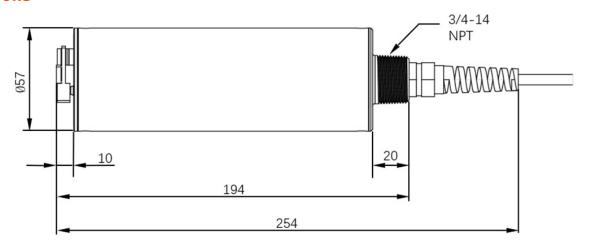
#### **Features**

- Resolution as low as 0.1 NTU
- Built-in transmitter, without preamplifier or meter head
- Combination 4-20mA isolated signal and RS-485 Modbus (RTU) output
- Simple / Wireless calibration using uPyxis Mobile or Desktop APPs and MA-CR Bluetooth Adapter
- Supports self-cleaning of sensor lens for dirty water applications
- Optional calibration with Pyxis Formazin calibration standards or field water samples
- 3/4-inch MNPT Threaded For Fixed Submersion

## **Specifications**

Item	LT-631	LT-632	LT-633
Part Number	53249	53250	10002
Parameter	Turbidity	Turbidity	Turbidity
Measurement Range	0.00-500.00NTU	0.00–1,000.00NTU	0.00–4,000.00NTU
Unit of Measure	NTU (Nephelometric Turbidity Unit)		
Lower Detection Limit	0.5NTU		
Precision	<100: ±2NTU or 2% of the Value, >100: ±10% of the Reading		
Ассигасу	±2NTU or 3% of the Value		
Resolution	0.1NTU		
Response Time	T95<12 seconds		
Calibration Method	Field Tested Process Sample or Formazine Calibration Standard		
Dual Wavelengths	Dual Infrared Light Sources - ISO-7027 Compliant		
Method	Scattering		
Power Supply	22–26VDC, 6W		
Operating Temp.	32-122 °F (0-50 °C)		
Storage Temp.	-7–60 °C (20–140 °F)		
Outputs	Isolated 4-20mA Analog Output & Isolated RS-485 Modbus Digital Output		
Installation	Submersed Fixed Conduit ¾-inch MPNT Threaded Cable Fitting, Hoisting Chain or Cable		
Sensor Distance Install	From Bottom of Vessel (>15cm) / From Side of Vessel (>10cm)		
Material	316L Stainless Steel Body & Wiper Arm, PTFE Wiper Blade		
Weight	1,530g (3.3lbs)		
Operational Pressure	45psi (3.5Bar)		
Rating	IP-68 Fully Dustproof & Waterproof		
Regulation	CE / RoHS		
Dimension (LxWxH)	(254mm x 57mm x 57mm)		
Cable Length	33 feet (10m) IP-67 8-Pin Adapter , 4.9 feet (1.5m) Flying Lead IP-67 8-Pin adapter		

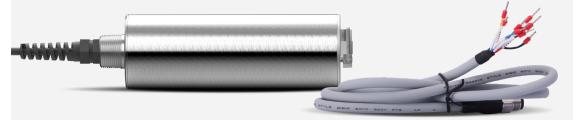
## **Dimensions**



#### Standard Accessories

All the following are included in the LT-63X Package

- (1) LT-63X sensor with bulkhead terminated cable w/8-Pin Female Adapter (33 feet / 10m)
- (1) MA-1.5CR Flying Lead Cable w/8-Pin Male Adapter/Flying Lead (4.9 feet / 1.5m)
- (1) MA-CR Bluetooth® Adapter & (1) USB Adapter
- The full instrument manual is available for download at www.pyxis-lab.com/shop



## Calibration Procedure via uPyxis® App

The LT-63X series sensor can be accessed via Bluetooth or USB from a mobile or desktop device using the uPyxis Mobile or Desktop Apps and the MA-CR Bluetooth/USB Adapter. The uPyxis Apps feature a live graphical display of the sensor value for turbidity as well as a sensor diagnostic, calibration function and wiper/cleaning iteration customization. After the sensor is properly cleaned it can then be calibrated for zero (clean water) and slope using sample water which has been tested for NTU.

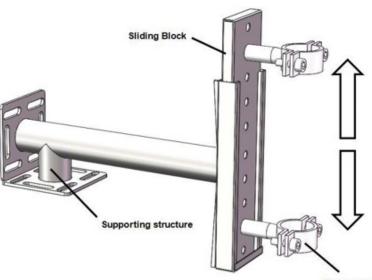
Contact **service@pyxis-lab.com** for support.



## Fixed Installation with MA-120-B

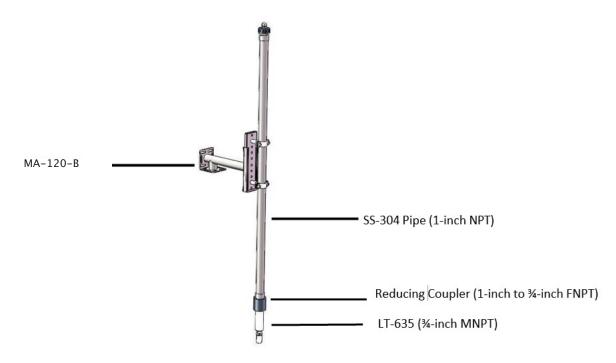
The LT-63X series may be installed in a submersible/fixed application using the MA-120-B Submersion Adapter Mounting Bracket.

(P/N: 50783)



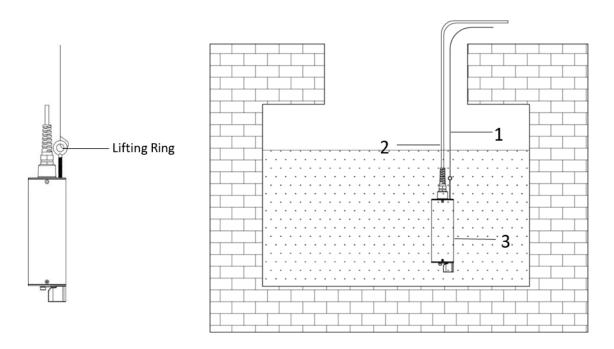
Pipe Clamp

#### Fixed Installation with MA-120-B



### Submersible Installation using Lifting Ring & Chain/Cable

The LT-63X Series sensor comes equipped with a lifting ring which allows the sensor to be lifted and lowered using a user provided chain or cable. This method of installation enables rapid retrieval and maintenance of the LT-63X Series.



<sup>&</sup>lt;sup>1</sup>Retention Chain/Cable

<sup>&</sup>lt;sup>2</sup>Sensor Output Cable

<sup>&</sup>lt;sup>3</sup>LT-63X Sensor

Order Information LT-631 Submersible Turbidity Sensor LT-632 Submersible Turbidity Sensor LT-633 Submersible Turbidity Sensor	<b>Part Number</b> 53249 53250 10002
Optional/Replacement Accessories Information LT-63X Replacement Wiper Blade	<b>Part Number</b> 50700-A50
MA-CR Bluetooth® Adapter	MA-CR
MA-NEB USB Bluetooth® Adapter	MA-NEB
UC-50 Micro-Display & Data Logging Terminal	43007
UC-100A Display & Data Logging Terminal	43054
MA-120-B Fixed Submerison Adapter Mounting Bracket	50783
MA-50CR 50ft Extension Cable	50743
MA-100CR 100ft Extension Cable	50744
Pyxis Sensor Cleaning Kit	SER-01