

## **LT-632 Submersible Turbidity Sensor**

### **Product Description**

The LT-632 is a submersible, waterproof, self-cleaning sensor that utilizes dual wavelength detection technology to measure turbidity in water or process media. The sensor automatically compensates for disturbances caused by flow fluctuations, climate change, color change or changes in turbidity. The instrument is virtually maintenance-free and the self-cleaning capability of the sensor prevents deviations caused by air bubbles and suspended solids particulate. The LT-632 is ideal for use in raw water, surface water, storm water, process water and discharged water applications.

The LT-632 can be 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 <0.1NTU for up to 1-year without calibration. Additionally, the LT-632 can be wirelessly accessed via the optional MA-CR Bluetooth adapter accessory for local display, diagnostics, cleaning and calibration when using the uPyxis APP for mobile or desktop devices. The LT-632 is ideal for turbidity measurement in raw water, surface water, storm water, process water and discharged water applications.

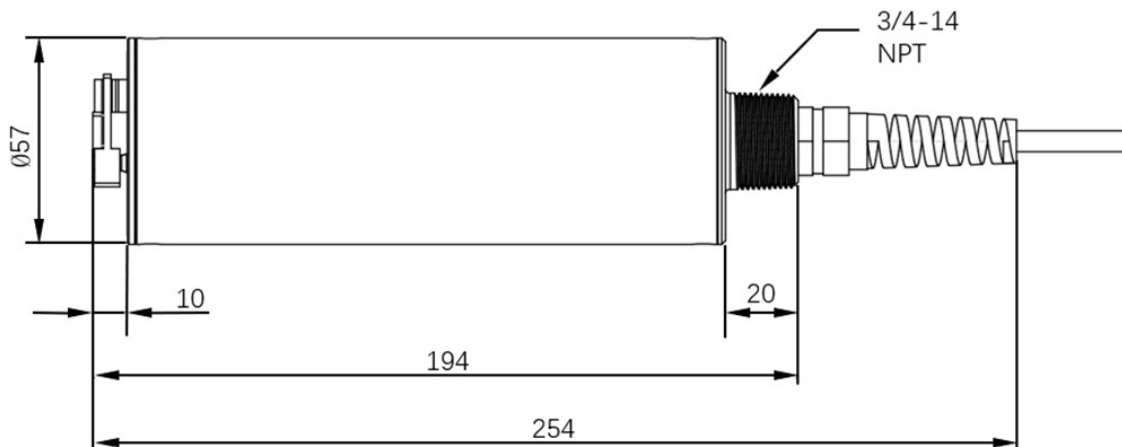
### **Features**

- Resolution as low as 2 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 Formazine calibration standards or field water samples
- ¾-inch MNPT Threaded For Fixed Submersion

## Specifications

Item	LT-632
Part Number	532590
Parameter	Turbidity
Measurement Range	0.00–1,000.00
Unit of Measure	NTU (Nephelometric Turbidity Unit)
Lower Detection Limit	0.5NTU
Precision	±2NTU or 2% of the Value
Accuracy	±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	Warm White Light <100NTU or Infrared Light >100NTU
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

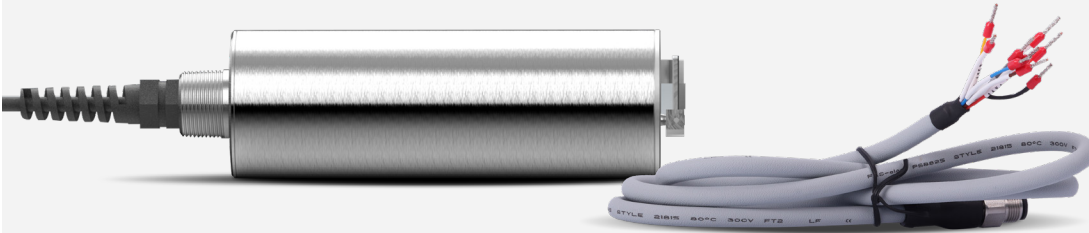
## Dimensions



## Standard Accessories

All the following are included in the LT-632 Package (P/N: 532590)

- (1) LT-632 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)
- The full instrument manual is available for download at [www.pyxis-lab.com/shop](http://www.pyxis-lab.com/shop)



## Calibration Procedure via uPyxis® App

The LT-632 sensor can be wirelessly accessed via Bluetooth from a mobile or desktop device using the uPyxis Mobile or Desktop Apps and the MA-CR Bluetooth Adapter. The uPyxis Apps feature a live graphical display of the sensor value for turbidity as well as a sensor diagnostics, 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.

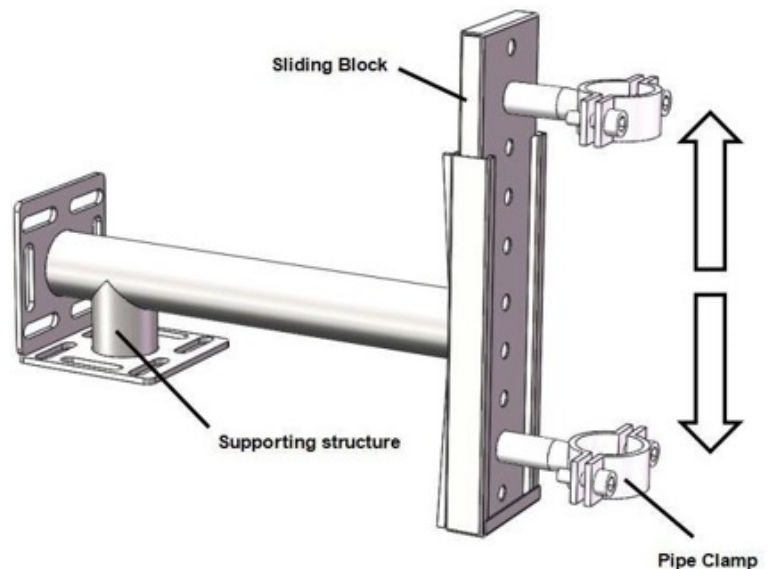
Contact [service@pyxis-lab.com](mailto:service@pyxis-lab.com) for support.



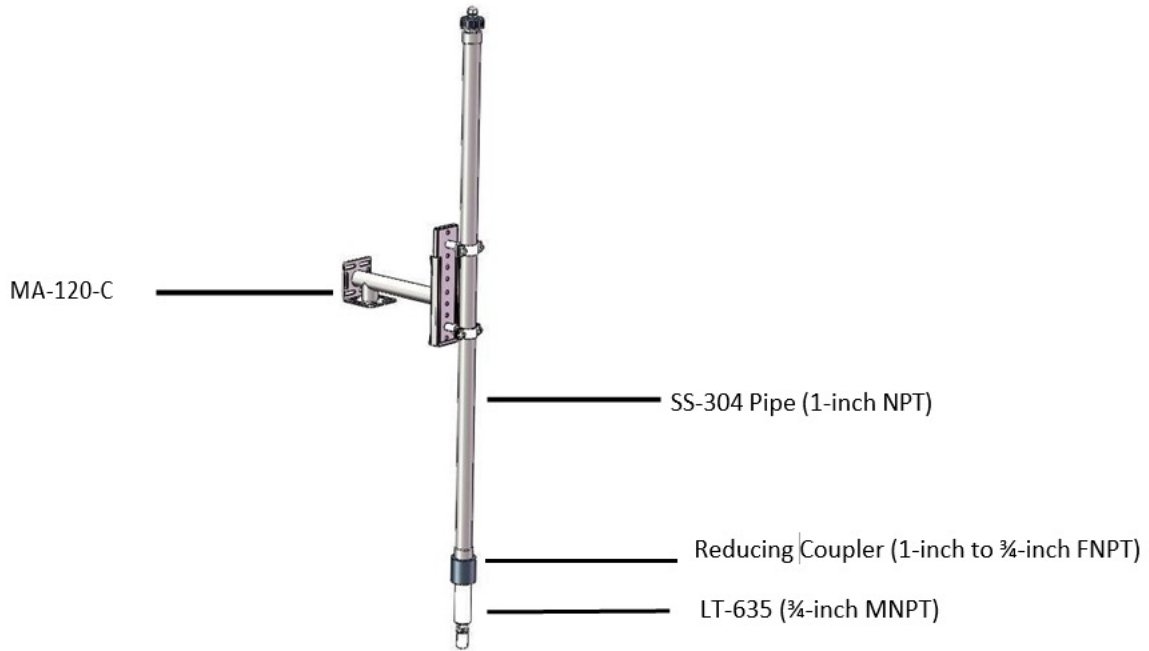
## Fixed Installation with MA-120-C

The LT-632 sensor may be installed in a submersible/fixed application using the MA-120-C Submersion Adapter Mounting Bracket.

(P/N: 50700A11)

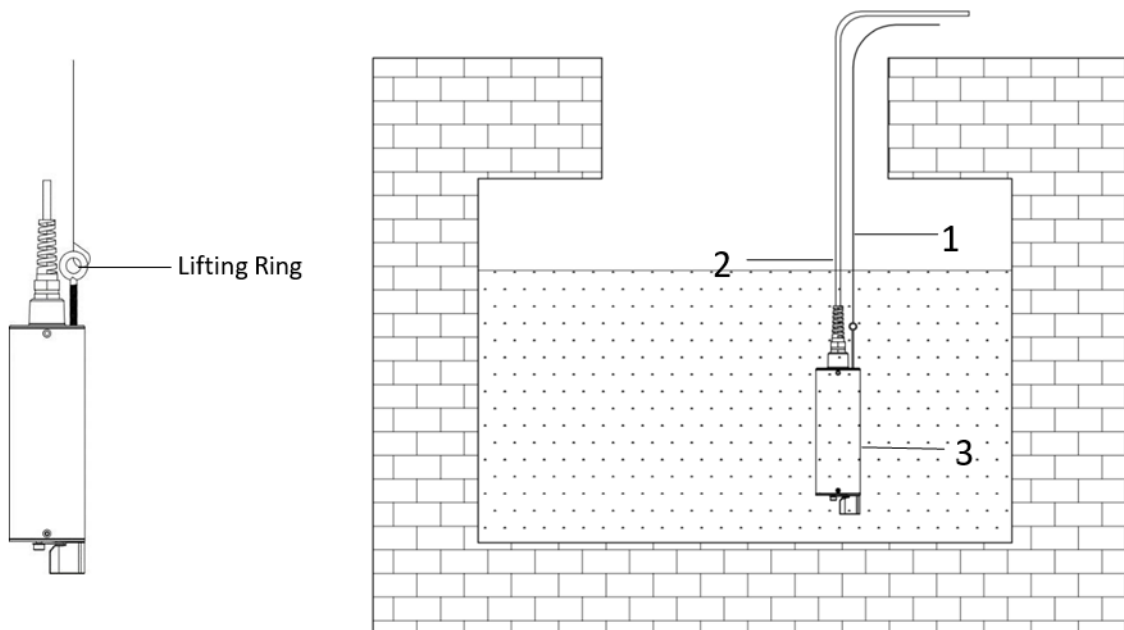


## Fixed Installation with MA-120-C



## Submersible Installation using Lifting Ring & Chain/Cable

The LT-632 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-632.



<sup>1</sup>Retention Chain/Cable

<sup>2</sup>Sensor Output Cable

<sup>3</sup>LT-635 Suspended Solids Sensor

***Order Information***

LT-632 Submersible Turbidity Sensor

***Part Number***

532590

***Optional/Replacement Accessories Information***

LT-632 Replacement Wiper Blade

***Part Number***

50700-A50

MA-CR Bluetooth® Adapter

MA-CR

MA-NEB USB Bluetooth® Adapter

MA-NEB

UC-50 Micro-Display &amp; Data Logging Terminal

43007

UC-100A Display &amp; Data Logging Terminal

43054

MA-120-C Fixed Submerison Adapter Mounting Bracket

50700-A11

MA-50CR 50ft Extension Cable

50743

MA-100CR 100ft Extension Cable

50744

Pyxis Sensor Cleaning Kit

SER-01