



LT-635 Submersible Suspended Solids Sensor *For Municipal & Industrial Wastewater Applications*

Product Description

The LT-635 is a submersible, waterproof, self-cleaning sensor that determines the concentration of suspended solids by measuring the attenuation of an infrared light source through the sample media. The sensor automatically compensates for disturbances caused by flow fluctuation and color of the water containing high levels of suspended solids. The instrument is virtually maintenance-free and the self-cleaning capability of the sensor prevents deviations caused by air bubbles, sessile bacteria (slime) and sludge particulate resulting in highly accurate suspended solids measurement which can directly reduce operation costs while improving efficiency and environmental compliance.

The LT-635 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 <0.1g/L for up to 1-year without calibration. Additionally, the LT-635 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-635 is ideal for suspended solids measurement in activated sludge wastewater operations including aerobic and anaerobic basins and digestors, as well as clarifier/thickener sludge bed level detection.

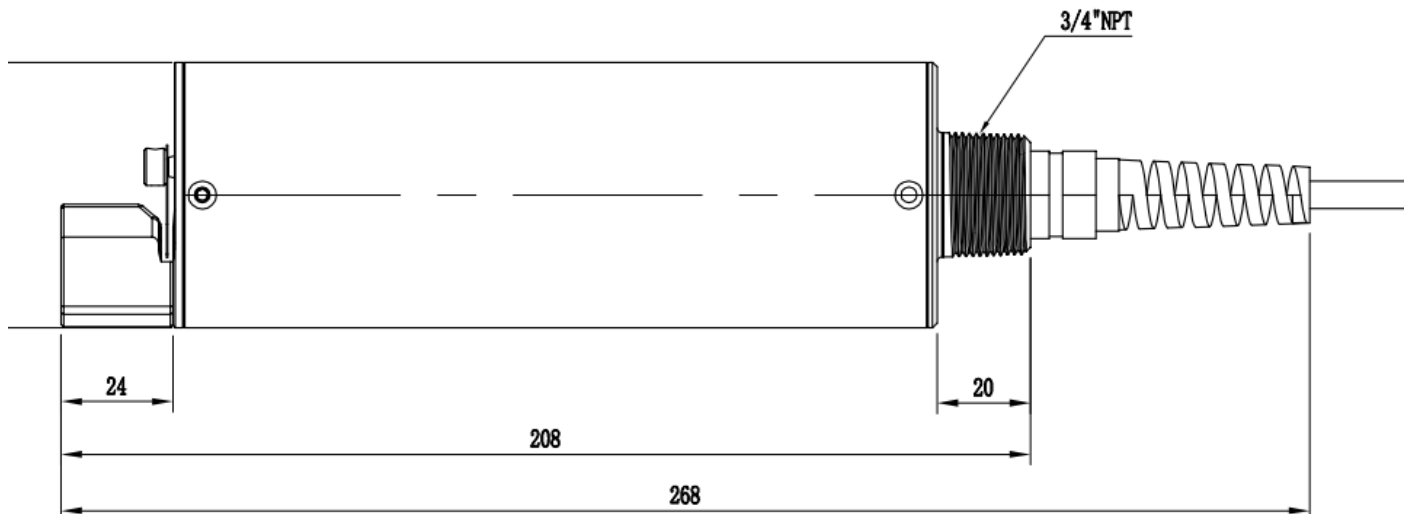
Features

- Resolution as Low as 0.1g/L
- Built-In Transmitter, without Pre-Amplifier or Meter Head
- 4-20mA isolated signal & RS-485 Modbus (RTU) output – 10m Terminated Cable (8pin)
- Simple Wireless calibration using uPyxis Mobile or Desktop APPs and MA-CR Bluetooth Adapter
- Self-Cleaning with Wiper Timer interface programmable via uPyxis®
- Easy calibration with field water sample tested value (Gravimetric Suspended Solids)

Specifications

Item	LT-635 Submersible Suspended Solids Sensor
P/N	53251
Parameter	Suspended Solids / Total Suspended Solids
Measurement Range	0.00–30g/L (0.00–30,000mg/L)
Unit	ppm (as SS or TSS)
Precision	±0.1g/L or 5% of the value
Response Time	T95<10s
Calibration Method	Gravimetric Total Suspended Solids Analysis – Application Specific
Wavelength	850nm
Method	Absorbance
Power Supply	22–26VDC, 6W
Operating Temperature	32–122 °F (0–50 °C)
Storage Temperature	-7–60 °C (20–140 °F)
Outputs	Isolated 4 – 20 mA Analog Output & Isolated RS-485 Digital Output
Installation	Submersed Fixed Conduit 3/4in MNPT Threaded Fitting or Hoisting Chain/Cable
Material	316L Stainless Steel Sensor Body & Wiper Arm, PTFE Wiper Blade
Weight	1,530g (3.3lbs)
Operational Pressure	45psi (3.1Bar)
Rating	IP-68 Fully Dustproof & Waterproof
Typical Wiper Life Span	12–18 Months (Avg. 10x/hour)
Regulation	CE/RoHS
Dimension (LxWxH)	(288mm x 57mm x 57mm)
Cable Length	33 ft (10m) w/IP-67 8-Pin adapter 4.9 ft (1.5m) flying lead w/IP-67 8-Pin adapter

Sensor Dimensions (mm)



Sensor Accessories

The following accessories are included in the LT-635 package (P/N 53251):

- (1) LT-635 Sensor with bulkhead 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/

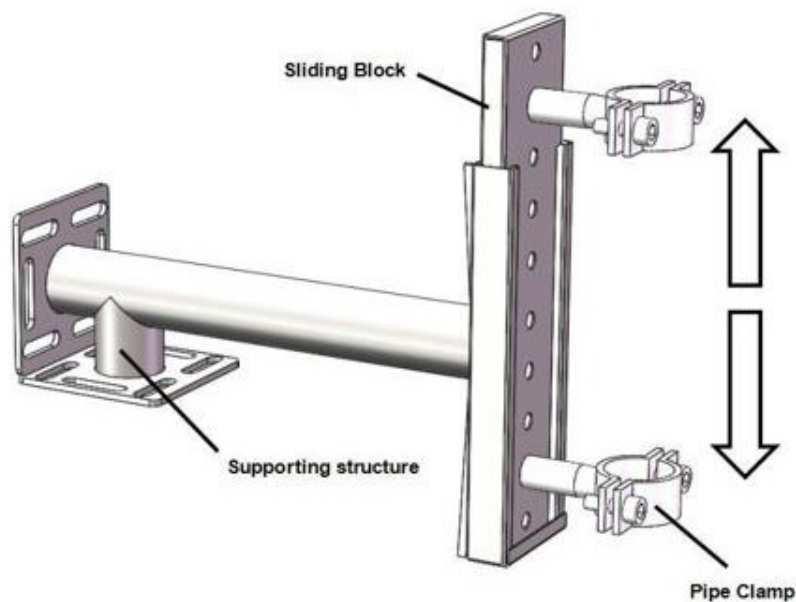
Calibration Process with uPyxis®

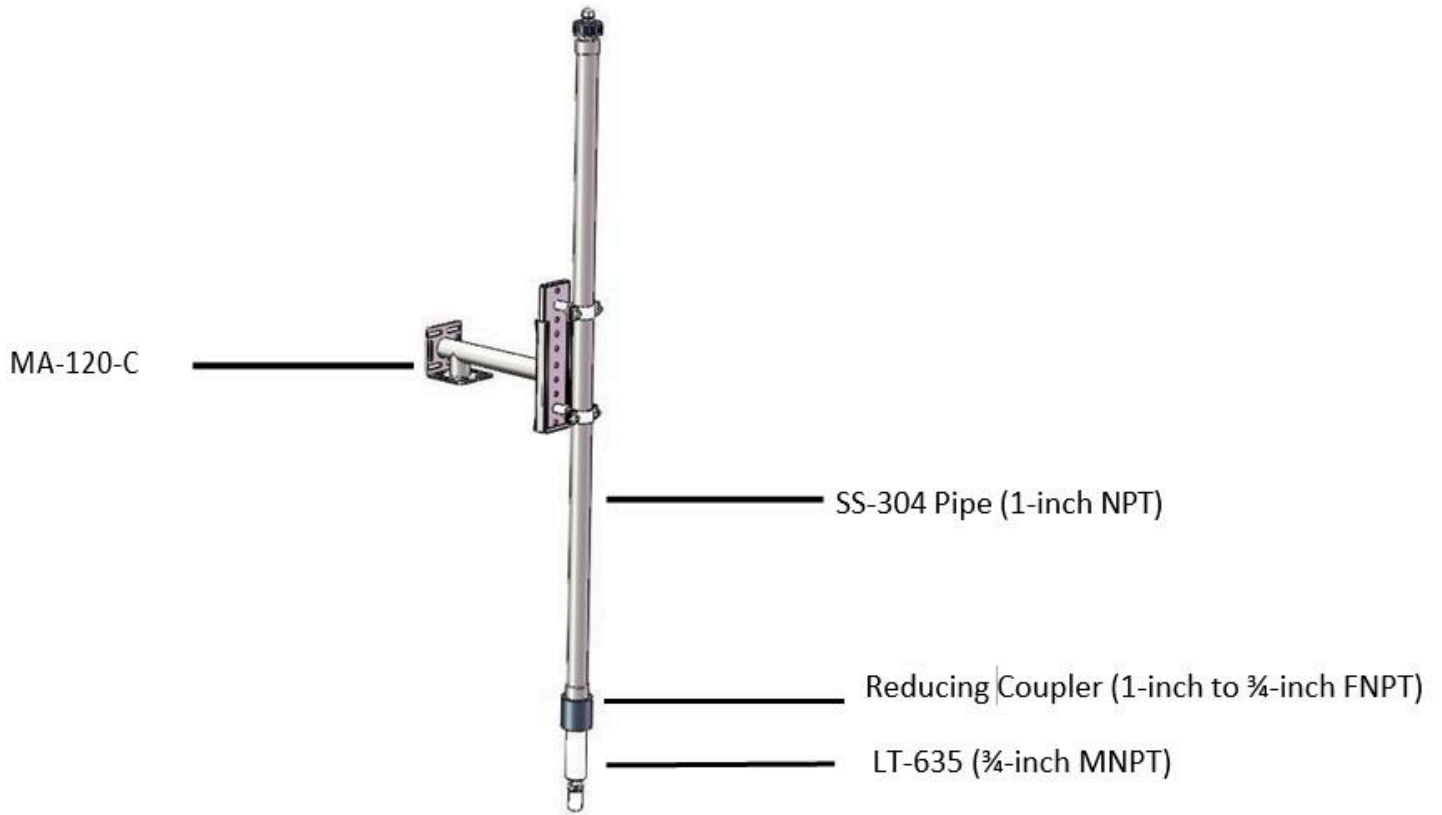
The LT-635 sensor can be wirelessly accessed via Bluetooth from a mobile or desktop device using the uPyxis Mobile or Desktop Apps and the MACR Bluetooth Adapter. The uPyxis Apps feature a live graphical display of the sensor value for suspended solids as well as a sensor diagnostics, calibration function 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 suspended solids using gravimetric methods. Contact service@pyxis-lab.com for support.



LT-635 Fixed Submersible Installation with MA-120-C Mounting Bracket

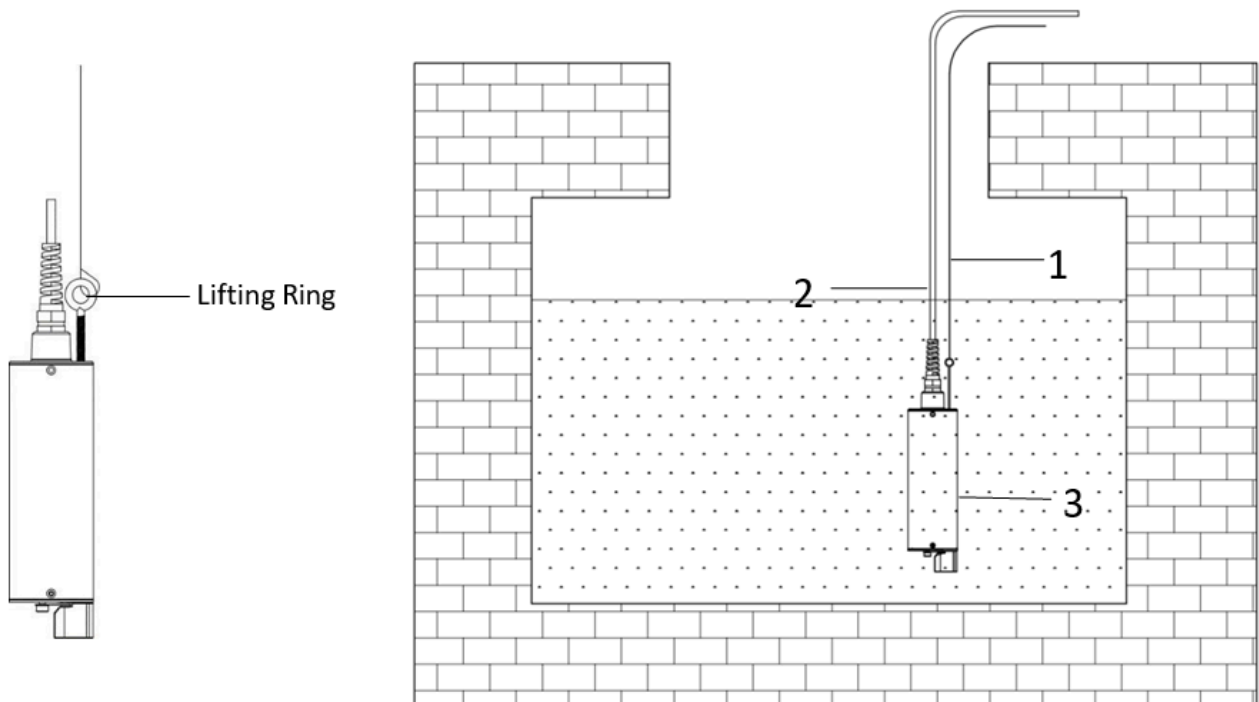
The LT-635 may be installed in a submersed/fixed application using the MA-120-C Submersion Adapter Mounting Bracket (P/N: 50700A11)





LT-635 Submersed Installation using Lifting Ring & Chain/Cable

The LT-635 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 use of the LT-635 in clarifier or thickener sludge bed depth profiling.



Order Information

LT-635 Submersible Suspended Solids Sensor

Part Number

53251

Optional/Replacement Accessories Information

LT-635 Replacement Wiper Arm & Blade Assembly Kit

Part Number

50700-A52

MA-CR 8-Pin Bluetooth® Adapter

MA-CR

MA-NEB USB Bluetooth® Adapter

MA-NEB

UC-50 Single Sensor Display & Data Logger

43007

UC-100A 4 Sensor Display & Data Logger

43054

MA-120-C Submersible Adapter Mounting Bracket

50700-A11

MA-50CR 50ft Extension Cable

50743

MA-100CR 100ft Extension Cable

50744

Inline Sensor Cleaning Kit

SER-01