

LT-635 SERIES

Auto-Cleaning Suspended Solids Sensors



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DESCRIPTION

The LT-635 is a submersible, waterproof, auto-wiping 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 4-20mA 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 App 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)

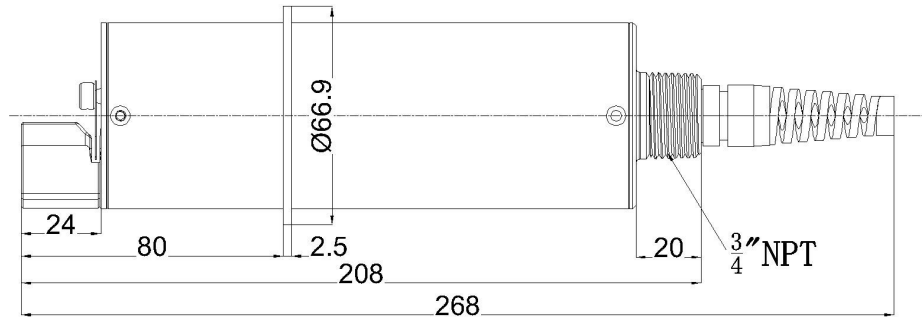
SPECIFICATIONS

Item	LT-635
Part Number	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 4-20mA Analog Output & Isolated RS-485 Digital Output Submersed
Installation	Fixed Conduit ¾in MNPT, Hoisting Chain, ST-008 ABS or ST-011 Stainless Block Tee
Material	316L Stainless Steel Sensor Body and 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 per hour)
Regulation	CE/RoHS
Dimensions	288mm L x 57mm W x 57mm H
Cable Length	33ft (10m) with IP-67 8PIN Adapter, 4.9ft (1.5m) Flying Lead with IP-67 8PIN Adapter

ACCESSORIES

- (1) LT-635 Sensor with Bulkhead Cable with 8PIN Female Adapter (33ft/10m)
- (1) MA-1.5CR Flying Lead Cable with 8PIN Male Adapter/Flying Lead (4.9ft/1.5m)
- (1) MA-CR Bluetooth® Adapter
- (1) MA-NEB USB Adapter

User Manual is Available for Download at www.pyxis-lab.com/shop

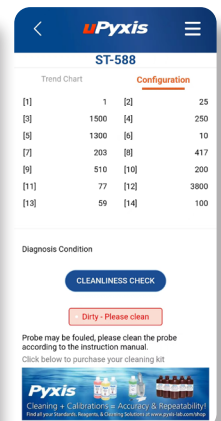
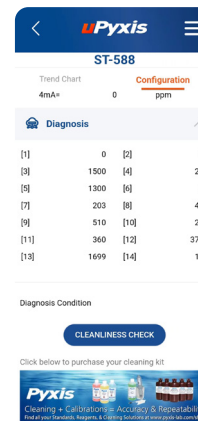


CALIBRATION PROCESS

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 MA-CR Bluetooth® adapter. The uPyxis® apps features a live graphical display of the sensor value for suspended solids as well as sensor diagnostics, calibration function and wiper/cleaning iteration customization.

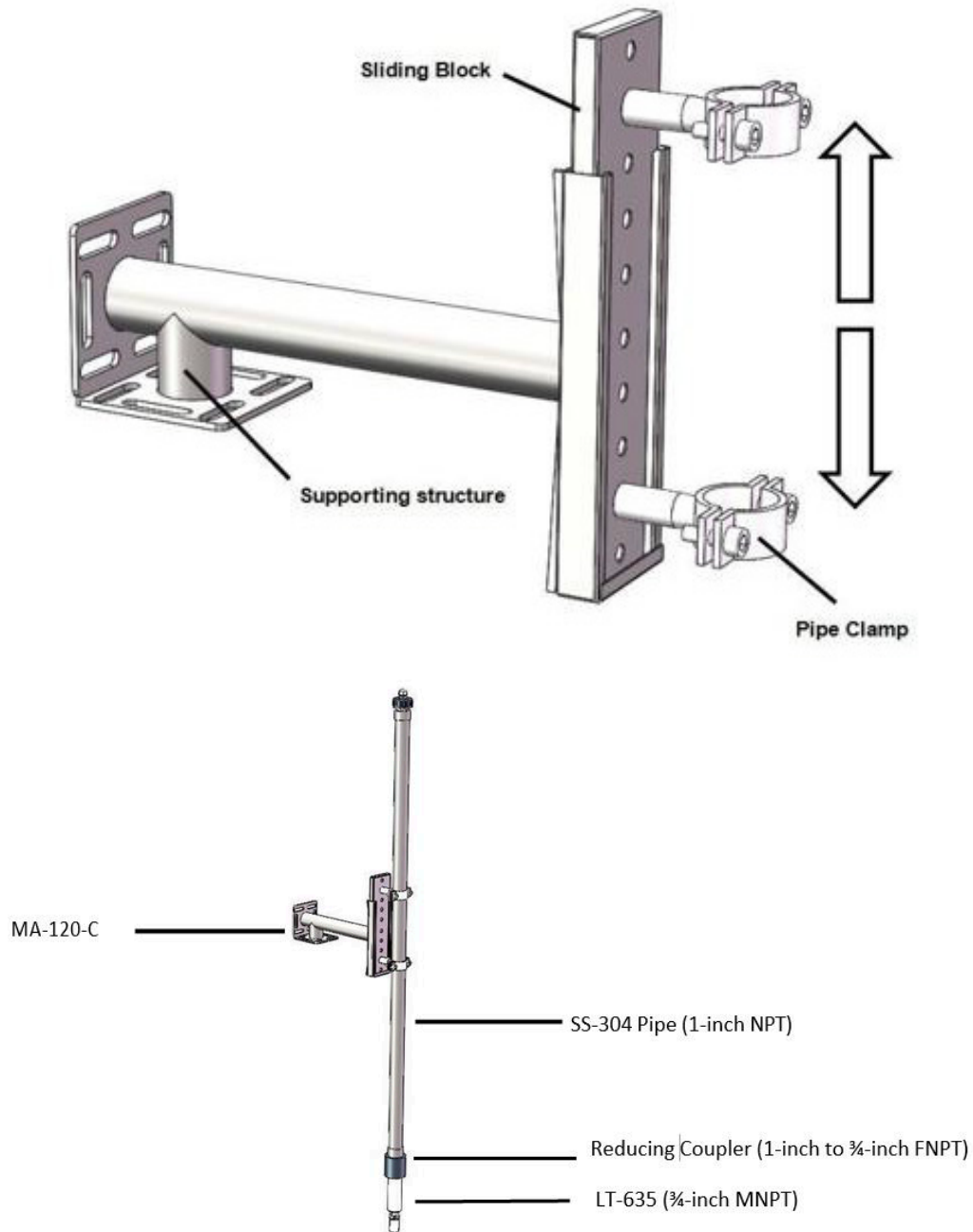
After the sensor is properly cleaned it can then be calibrated for zero (clean water) and slope using sample water which has been tested for suspended solids using gravimetric methods.

Contact service@pyxis-lab.com for Support



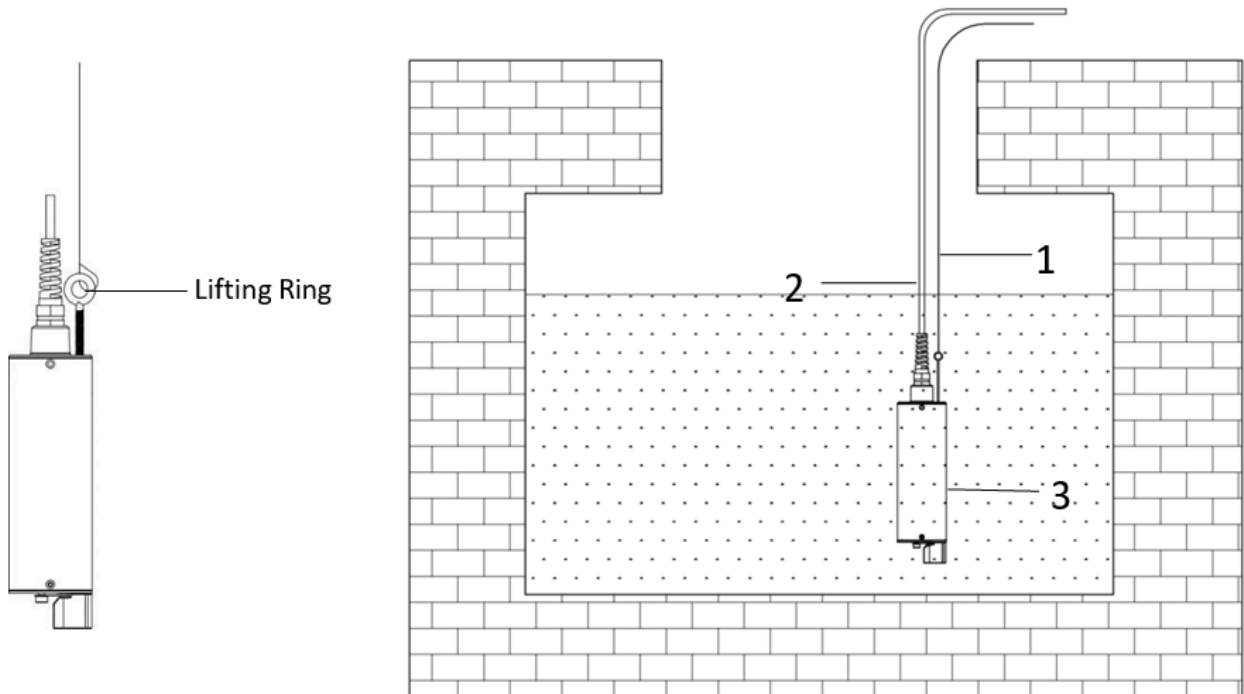
INSTALLATION METHODS

The LT-635 may be installed in a submersed/fixed application using the MA-120-B submersion adapter mounting bracket (Part Number: 50783)



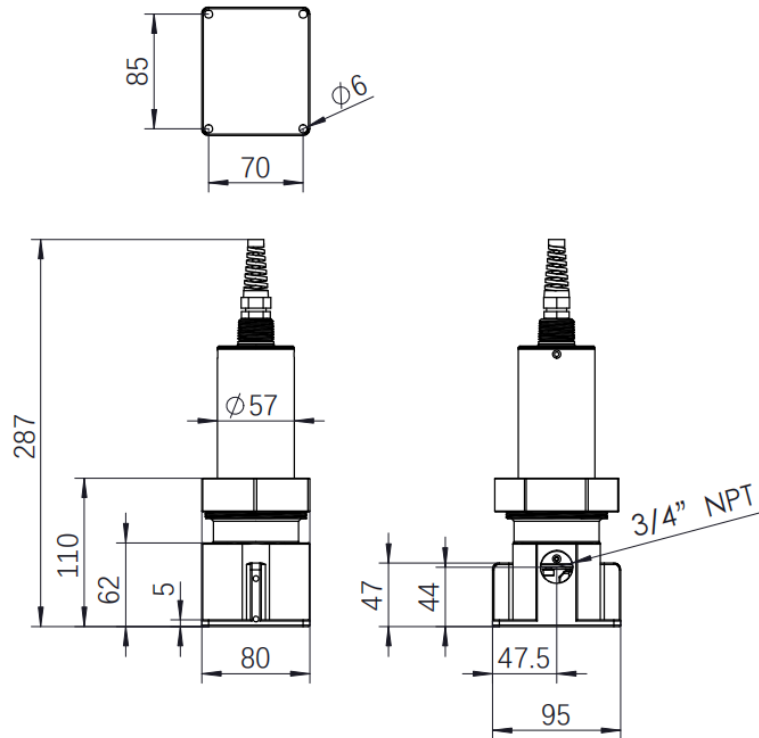
INSTALLATION METHODS

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.



INSTALLATION METHODS

The LT-635 sensor can now be installed in a bypass flow arrangement using the ST-011 inline stainless steel block flow tee assembly. This new tee is uniquely designed for use with the LT-635 sensor only and enables accurate and repeatable TSS value measurements in a by-pass flow arrangement. This sensor may be operated at pressures up to 45psi while inserted into the ST-011 tee assembly. Inlet and outlet line size is 3/4-inch FNPT.



ORDER INFORMATION

LT-635 Submersible Suspended Solids Sensor

PART NUMBER

53251

OPTIONAL/REPLACEMENT ACCESSORIES

LT-635 Replacement Wiper Arm and Blade Assembly Kit

50700-A52

MA-CR 8PIN Bluetooth® Adapter

MA-CR

ST-011 Stainless Steel Block Tee Assembly ¾ inch

20385

UC-50 Single Sensor Display & Data Logging Terminal

43007

UC-100A 4 Sensor Display & Data Logging Terminal

43054

MA-120-B Submersible Adapter Mounting Bracket

50783

MA-50CR 50' Extension Cable

50743

MA-100CR 100' Extension Cable

50744

Inline Sensor Cleaning Kit

SER-01