

## LSR-803/L Series Battery Powered Radar Level Transmitters with LoRa

### Product Description

The Pyxis LSR-803 Series sensors are W-band FMCW continuous frequency modulation radar level transmitters. They provide continuous level measurement up to 591 inches (49.2 ft. or 15 m) with 4-20 mA output as well as RS485, BlueTooth 5.0®. The LSR-803L is also equipped with LoRa (Long Range Radio) digital output for long-distance wireless level sensor data access. The LSR-803 Series has a 1.3" OLED display and 4 buttons for quick configuration and can be wirelessly configured via the Pyxis uPyxis® app for Mobile or Desktop devices enabling rapid integration and deployment in the field. The sensors are powered by a 24 VDC / 2.0W external power supply or 4 AA alkaline batteries and are ideal for use with commonly used OEM controllers, PLC or DCS systems. This non-contact liquid level sensor platform is well suited for corrosive liquids and can be used for industrial, municipal and process liquid storage as well as chemical feed applications.

LSR-803L



LSR-803



### Typical Applications

The Pyxis LSR-803 Series Radar level sensors are ideal for use as a water level sensor, water & process chemical tank level sensor, liquid level transmitter, or other applications requiring accurate and continuous liquid level measurement with either wired or battery power.

### Features

- i. Radar Level Measurement up to 15m ( $\pm 2$ mm)
- ii. Embedded Transmitters 4-20mA or RS-485 Outputs
- iii. Bluetooth® 5.0 for Rapid Wireless uPyxis® Configuration
- iv. LoRa (Long Range Radio) Implemented LSR-803L
- v. 24VDC or AA Battery Powered with Smart Switch Capacity
- vi. PVDF Transducer / 6P Polycarbonate Enclosure
- vii. 10ft Waterproof 7-Pin Quick Adapter/Flying Lead Cable
- viii. Auto Temperature / Electromagnetic Noise Compensation

## Specifications

Item	LSR-803L	LSR-803
<b>P/N</b>	54495	50191
<b>Power Supply</b>	24VDC, 2W or (4) AA Alkaline Batteries	24VDC, 2W or (4) AA Alkaline Batteries
<b>Radio Output</b>	Long Range Radio (LoRa)	N/A
<b>Enclosure Rating</b>	IP66	IP67
<b>Bluetooth®</b>	Bluetooth® 5.0 - 4.1, 32ft (10m) Line of Sight for use with uPyxis®	
<b>Wired Output</b>	(1) 4-20mA / RS-485 Modbus	
<b>Output Cable</b>	Waterproof 7-PIN (10ft/3m) Cable with Adapter and Flying Lead Cable	
<b>Extension Cable</b>	Waterproof Extension Cables Sold Separately	
<b>Range</b>	2–591 inches (0.05–15m)	
<b>Resolution</b>	0.02in (0.5mm)	
<b>Accuracy</b>	±2mm	
<b>Dead Zone</b>	2in (5cm)	
<b>Measurement Interval</b>	Programmable via uPyxis® in both 24VDC or AA Battery Power Supply	
<b>Installation</b>	2in NPT	
<b>Weight</b>	0.82lbs (370g)	
<b>Dimension</b>	4.13in (105mm) H; 3.31in (84mm) D	
<b>Enclosure Material</b>	Polycarbonate (PC), Polybutylene Terephthalate (PBT)	
<b>Ambient Temperature</b>	5–122 °F (-15–50 °C)	
<b>Storage Temperature</b>	-4–140 °F (-20–60 °C)	
<b>Pressure</b>	-29–58psi (-0.2–0.4MPa)	
<b>Display</b>	1.3" OLED Display	
<b>Regulation</b>	UL / CE / RoHS / UKCA	
<b>Transmitter FCC ID</b>	2BAJ2-LSR	

*\*With Pyxis' continuous improvement policy, this specification is subject to change without notice.*

### uPyxis® Diagnosis, Calibration & Historical Data Transfer

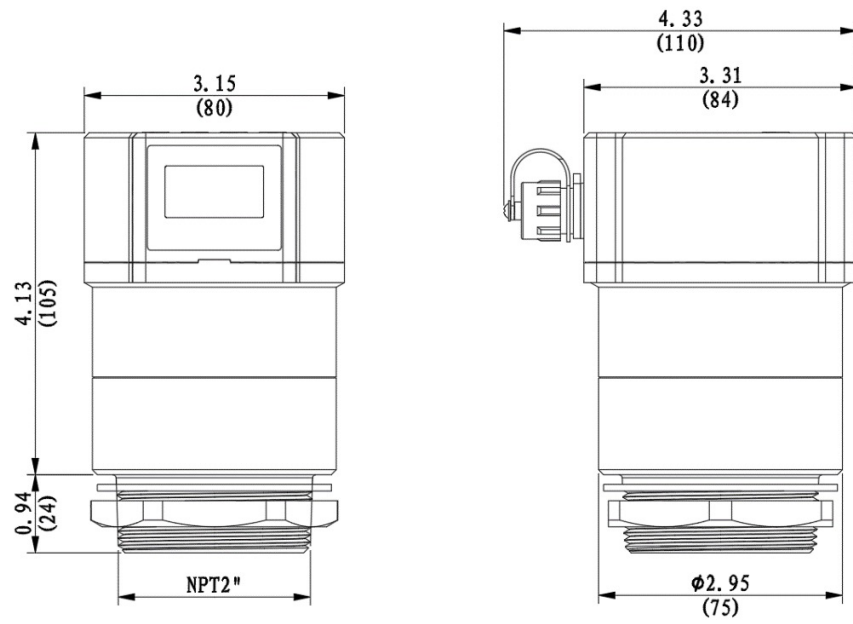
The LSR-803 series level sensors are designed to be user configured via Bluetooth 5.0 with the uPyxis 2.0 APP for Mobile or Desktop devices. When powered and in Peripheral connectivity mode, the LSR-803 series will be recognized by the uPyxis APP for rapid in the field programming of tank size, installation height, maximum liquid height, product name, maximum liquid volume, unit of measure and frequency of data log. The uPyxis 2.0 APP interface also allows for customized register programming via RS485 as well as live inventory data display and historical data log download and transfer via email as a CSV file for those desiring to operate the LSR-803 series in AA-battery mode. The uPyxis 2.0 APP is available on the Apple iStore and Google Play for free download and use.

#### **NOTE:**

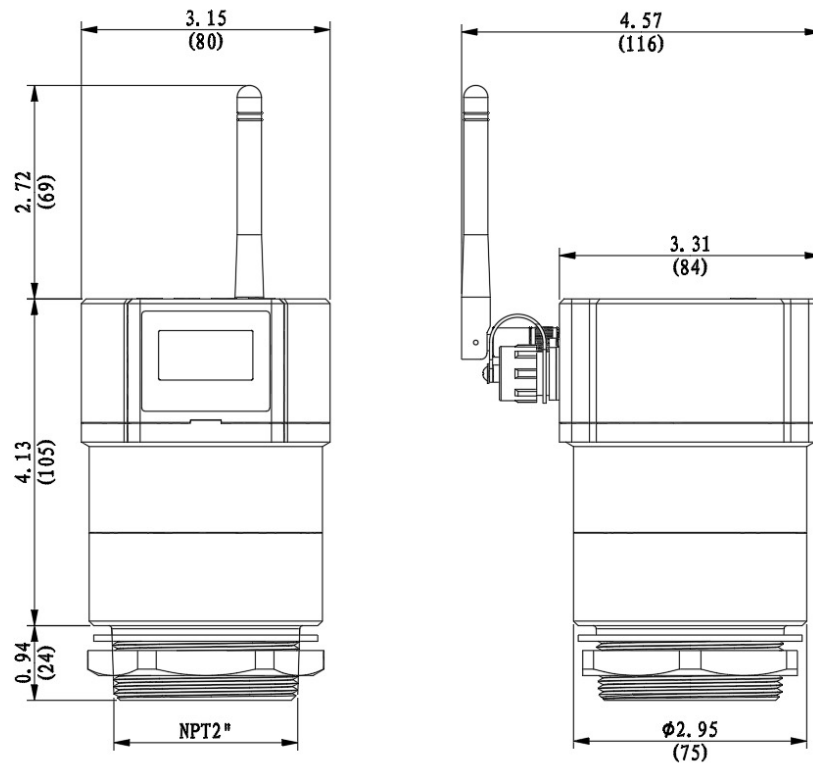
The The uPyxis Mobile APP is evolving rapidly and users can find the latest version at no cost on Apple iStore or Google Play. The uPyxis Desktop APP may be downloaded at:

**[www.pyxis-lab.com/upyxis-app](http://www.pyxis-lab.com/upyxis-app)**

## LSR-803 Dimensions (mm)



## LSR-803L Dimensions (mm)



## *AA Battery Installation*



## *24VDC Power & Output Communication Adapter*



**Order Information**

LSR-803 Radar Level Transmitter  
LSR-803L Radar Level Transmitter with LoRa

**Part Number**

50191  
54495

**Additional Accessories**

MA-AC-7US (110VAC–24VDC Power Supply - 7-PIN Adapter)  
MA-AC-7EU (230VAC–24VDC Power Supply - 7-PIN Adapter)  
10ft Waterproof Flying Lead Cable  
25ft Waterproof Extension Cable  
50ft Waterproof Extension Cable  
100ft Waterproof Extension Cable  
LSR-MB-W001 Wall Mounting Bracket  
LSR-MB-H001 Hanging Mounting Bracket  
LSR-MB-B001 Belt Mounting Bracket

**Part Number**

26398  
28787  
MA-L10  
MA-L25  
MA-L50  
MA-L100  
24658  
29634  
23220