LevelPro®

LevelPro® — 100 Series
Submersible Level Sensor Transmitter

ICON PROCESS CONTROLS™
Corrosion-Free
Instrumentation Equipment™

- ✓ **Works on Foam | Vapor | Turbulence | Condensate**
- ✓ **Ceramic Sensing Diaphragm**
- ✓ **Integrally Molded Internal | Weight No Floating**

Teflon® Jacketed Cable

Ceramic Sensing Diaphragm

316 SS

Features

- ✓ High Accuracy: ±0.5%
- ✓ Superior Chemical/Corrosion Resistance
- ✓ PVC | PP | PVDF | 316 SS | PTFE Teflon®
- ✓ Teflon® Jacketed Cable
- ✓ Kalrez® (FFKM) O-Ring Seal
- ✓ IP68 | NEMA 4X Enclosure

Working Principle

LP100 Junction Box
(Sold Separately)

ShoPro® SP100 Series
(Sold Separately)

A Submersible Level Sensor for the Toughest Industrial Applications.

The **100 Series Submersible Level Sensor Transmitters** are designed to provide an accurate and continuous level measurement for both corrosive and non-corrosive liquids.

Featuring an integrally molded weight, the 100 Series sensor is engineered to sit and remain at the bottom of the tank while measuring the head pressure of the liquid pushing down on its ceramic diaphragm.

Aside from being the industry's simplest and most reliable level sensor, the 100 Series is the perfect solution for tough applications where ultrasonics will not perform.
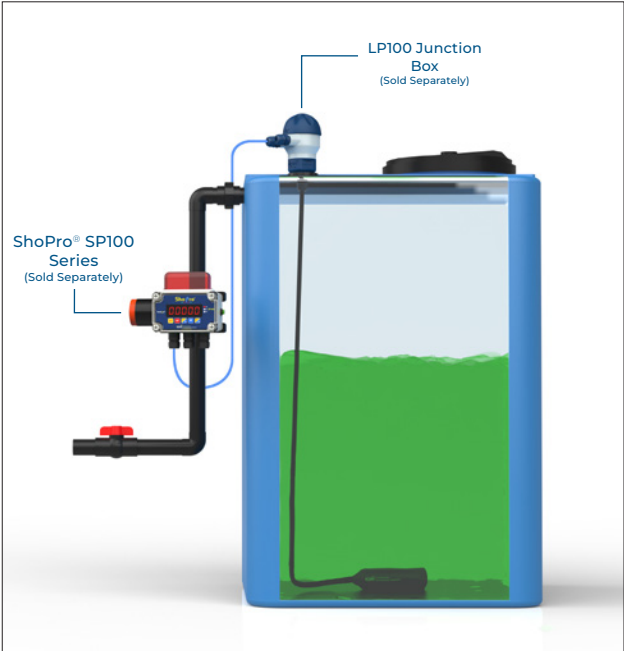
Model Selection

100 Series Submersible Level Sensor		
Size	**Part Number**	**Material**
0-34ft | 11m	191-1001-A113315	PVC
0-34ft | 11m	191-1001-B113315	PP
0-34ft | 11m	191-1001-E113315	PVDF
0-34ft | 11m	191-1001-T113315	PTFE
0-34ft | 11m	191-1001-SS113315	316 SS

191-**1001**-**A**113**315**

Range (ft)	Housing	Output	Cable Length
1401 : 14.0	**A :** PVC	**1 :** 4-20mA	**05 :** 5m
1201 : 20.0	**B :** PP	**2 :** Ratiometric	**10 :** 11m
1001 : 34.0	**E :** PVDF	**3 :** Voltage	**15 :** 15m
4001 : 54.0	**T :** PTFE	**4 :** RS485	**20 :** 20m
	SS : SS		

PVC | PP | PVDF | PTFE | 316SS | RoHS Compliant | CE

Technical Specifications

Input Pressure Range	
Level ft/H_2O	14 | 20 | 34 | 54 *Consult Factory for Levels > 54 ft
Overpressure | Psi	210 | 290 | 290 | 380

Output Signal | Supply	
Output Signal	4-20mA | 4-20mA + Hart 2 Wire | 0.5-4.5 VDC Ratiometric | 0-5 VDC | RS-485 3 Wire
Power Supply	9–36 VDC | 0.5–4.5VDC | 5VDC

Performance	
Accuracy	<±0.5% of FS
Permissible Load	R_{max} = [(Vs-Vsmin)/0.02 A]Ω
Influence Effects	Supply: 0.05% Full Scale/10V | Load: 0.05% Full Scale/KΩ
Long Term Stability	<± 0.1% Full Scale over One Year
Response Time	<10 msec

Thermal Effects | Offset and Span	
Thermal Drift	<± 0.02% FSO/K in Compensated Range | -20 – 170°F

Permissible Temperatures	
Storage/Media Temperatures	PVC: 32°F to 140°F | PP: -20°F to 170°F | PVDF: -40°F to 170°F | PTFE: -40°F to 170°F | 316 SS: -40°F to 170°F

Electrical Protection	
Short-Circuit Protection	Permanent
Reverse Polarity Protection	No Damage to Sensor
Electromagnetic Compatibility	Emission Immunity According to EN 61326

Electrical Connection	
Jacketed Cable	PTFE | Teflon® -40 to 200°F
3-Wire Cable with Integrated Air Tube for Reference to Atmospheric Pressure	

Materials | Wetted	
Housing	PVC | PP | PVDF | PTFE | 316 SS
Seal	FFKM - Kalrez®
Diaphragm	Pure Ceramic 96% Al203 | 316 SS

General	
Current Consumption	Max. 25mA
Weight | Grams	PVC: 575g | PP: 475g | PVDF: 825g | PTFE: 875g | 316 SS: 875g
Ingress Protection	IP 68 | NEMA 4X
CE-Conformity	EMC Directive: 2004 | 108 | EC

*Contact Factory for different options

Wiring

24VDC	Color
Supply +	Red
Supply -	Black

Double Shielded

Supply -

Supply +
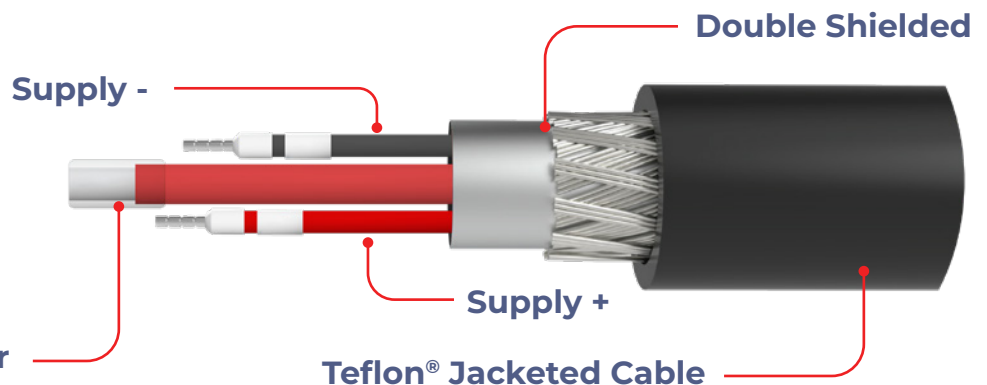
Capillary with Gortex® Breather

Teflon® Jacketed Cable

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Submersible Level Sensor Transmitter

ICON PROCESS CONTROLS ™ Corrosion-Free Instrumentation Equipment™

LP100 Junction Box

Frequently Ordered With:

- **SP100 Level Display**
  LevelPro® ShoPro® Series LED Display & Controller, 4-20mA Input, NEMA 4X Enclosure, Wall Mount, 120VAC

- **LP100 Junction Box**
  LevelPro® LP100 Series Junction Box, PP Material, Viton VaporBloc®, NEMA 4X, 2" NPT Connection, Gortex® Breather

The Solution to Tough Applications Where Ultrasonic Sensors Simply DO NOT WORK!

The LevelPro® 100 Series submersible level sensor transmitter and tank level junction box are a perfect pair for applications where ultrasonic sensors aren't going to work.

Accurately measure tank levels with this rugged combination that's simple to use and boasts superior chemical resistance along with industry exclusive features.

100 Series

Ceramic Sensing Diaphragm

VaporBloc®
Eliminates Vapor from Entering Junction Box

Teflon® Jacketed Cable

VaporBloc® Technology

- ⊘ Blocks Out Corrosive Chemical Fumes
- ⊘ Pressure Tested to 75 Psi
- ⊘ Protects Internal Wiring Connections

Displays

The 100 Series can be easily connected to one of our many displays or to an existing PLC.

Optional Audio & Visual Arms

ShoPro® SP100 Series

- **All in One Controller**
- **NEMA 4X Enclosure + Cord Grip**
- **Power Supply Output: 24 VDC**
- **Optional Audio & Visual Alarms**