

# LevelPro® — 100 Series

## Submersible Level Sensor Transmitter

**ICON**™ Corrosion-Free  
PROCESS CONTROLS Instrumentation Equipment™

## DATA SHEET



Please call:

**BURT PROCESS EQUIPMENT**

**800-577-8111 for SALES and SUPPORT.**

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**LevelPro®**

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## Submersible Level Sensor Transmitter

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



### 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.

PVC

PP

PVDF

PTFE

316SS

RoHS Compliant

### Features

- ✓ High Accuracy:  $\pm 0.5\%$
- ✓ 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



### 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-A113315

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		

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### Technical Specifications

Input Pressure Range	
Level ft/H <sub>2</sub> O	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	$R_{max} = [(V_s - V_{smin}) / 0.02 A] \Omega$
Influence Effects	Supply: 0.05% Full Scale/10V   Load: 0.05% Full Scale/K $\Omega$
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	

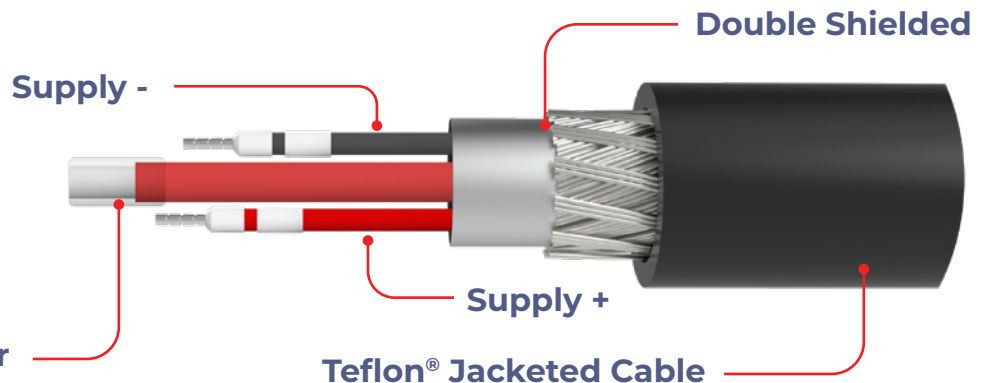
Materials   Wetted	
Housing	PVC   PP   PVDF   PTFE   316 SS
Seal	FFKM - Kalrez®
Diaphragm	Pure Ceramic 96% Al <sub>2</sub> O <sub>3</sub>   316 SS

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



Capillary with Gortex® Breather

Teflon® Jacketed Cable

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### LP100 Junction Box



**VaporBloc®**  
Eliminates Vapor from  
Entering 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

Teflon® Jacketed Cable

Ceramic Sensing  
Diaphragm

### 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 Alarms

### ShoPro® SP100 Series

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