

Model LV800

For Level Measurement



Features

- Measuring ranges from 1mH₂O to 200mH₂O
- Accuracy: $\pm 0.25\%$ FSO or $\pm 0.5\%$ FSO
- Calibrated and temperature compensated
- Stainless steel construction
- Piezoresistive pressure sensor design
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V, RS485 and others

Product Overview

LV800 is made from high-quality silicon piezoresistive sensor. The piezoresistive sensor is packaged in stainless steel housing. The LV800 is precision engineered to fit most level measurement. The water-proof cable connects with housing sealed, with vented tube putting in, the transmitter could be used in the water or liquid in a long time. Integrated construction and standard output signal could provide easy operation and good automatic control.

Standard Pressure Ranges

Nominal pressure	gauge	
0...1mH ₂ O	●	
0...2mH ₂ O	●	
0...5mH ₂ O	●	
0...10mH ₂ O	●	
0...15mH ₂ O	●	
0...20mH ₂ O	●	
0...50mH ₂ O	●	
0...80mH ₂ O	●	
0...100mH ₂ O	●	
0...150mH ₂ O	●	
0...200mH ₂ O	●	

Other pressure ranges available. Please consult the factory.

Applications

- Level measurement
- Hydraulic monitoring in rivers and sea
- Muddy liquid level measurement
- Water treatment
- Water diversion project

Performance Specifications

Parameter	Value	Units	Notes
General			
Pressure Range	0-1, ..., 200	mH ₂ O	
Overpressure	1.5xFS	mH ₂ O	
Environmental			
Operating Temperature Range	-20 to +70	°C	-4°F to 158°F
Compensated Temperature Range	0 to +60	°C	32°F to 158°F
Storage Temperature Range	-40 to +125	°C	-40°F to 257°F
Vibration	10	g	20 to 2000Hz
Shock	100	g	10ms
Cycles	10x10 ⁶	cycles	
Electrical @25°C(77°F)			
Output Signal	4...20mA 0...5Vdc 0...10Vdc	RS485	0.5...4.5Vdc(ratiometric)
Power Supply(Vs)	12...36Vdc	12...36Vdc	15...36Vdc
Load Resistance	<(Vs-12)/0.02A (For current output), >10kΩ (For voltage output)		
Insulation Resistance	100MΩ@50Vdc		

Physical Specifications

Media Compatibility	All media compatible with 316L stainless steel
Housing	304 stainless steel
Diaphragm	316L stainless steel
Seal Ring	Viton or NBR
Oil Filling	Silicone oil
Protection	IP68
Net Weight	Approx.225g

Parameter	Minimum	Typical	Maximum	Units	Notes
Performance					
Accuracy	0.1	0.25	0.5	%FSO	1,2
Temp Coeff - Zero		±0.75	±1.5	%FSO	3
Temp Coeff - Span		±0.75	±1.5	%FSO	3
Long-Term Stability		±0.2	±0.3	%FSO/year	1

Notes

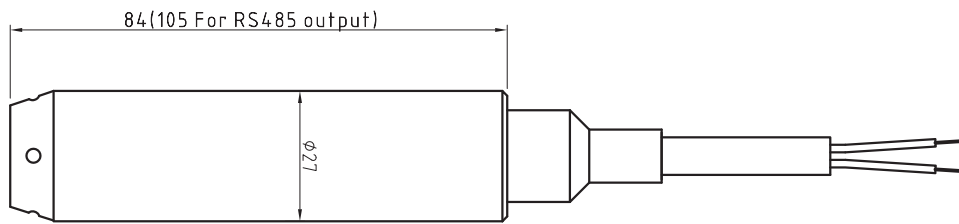
- All values measured at 25°C(77°F)
 - Including non-linearity, hysteresis and repeatability.
 - 0°C to 70°C(32°F to 158°F) with reference to 25°C(77°F).
- The listed specifications and dimensions are subject to change without prior notice.

Connection Diagrams

Cable outlet

	2-wire(current)	3-wire(voltage)	4-wire(RS485)
Supply+	red	red	red
Signal+	yellow	yellow	yellow
Gnd	-	black	-
RS485A	-	-	green
RS485B	-	-	white

Dimensions (in mm)



Ordering Information

Option1: Model					
LV800	Level Transmitter				
Option2: Pressure Ranges					
0001	1mH ₂ O	0100	100mH ₂ O		
0002	2mH ₂ O	0150	150mH ₂ O		
0005	5mH ₂ O	0200	200mH ₂ O		
0010	10mH ₂ O	Cxxx	Customized range		
0020	20mH ₂ O				
0050	50mH ₂ O				
0080	80mH ₂ O				
Option3: Cable length					
[x]m	x=cable length				
Option4: Output Signal					
42	4...20mA				
05	0...5Vdc				
15	1...5Vdc				
10	0...10Vdc				
45	0.5...4.5(ratiometric)				
R4	RS485-modbus				
R40	4...20mA+RS485-modbus				
Option5: Accuracy					
02	0.25%FSO				
05	0.5%FSO				
LV800	0010	15	42	02	Examples of Ordering Code: LV800-0010-15-42-02