

# SDX Pressure Sensor DATA SHEET



## Description

The Stevens SDX (Submersible Depth Transmitter) is a pressure sensor that delivers accurate results while still remaining very affordable for a wide range of level measurement applications.

High impact, corrosion-resistant PVC Type II housing and potted electronics make the SDX extremely durable for most water and hostile fluid environments. The SDX is also an excellent choice for level measurement applications that may put more expensive sensors at risk for damage.

The SDX comes equipped with user specified vented cable lengths. The vent provides an atmospheric reference for the sensor, which is necessary for ensuring the highest possible accuracy when making a level measurement.

The SDX features one 4-20 mA analog output signal that corresponds linearly to range. Compatible with existing power and data logging instruments, the SDX can easily be deployed for data collection at remote monitoring sites.

The sensor housing features pipe threads for securely mounting the SDX into pipes, tanks, or other applications (see technical specifications for thread measurements).

## Features

- Rugged housing and fully potted electronics - no risk of leaking
- Compact size
- Accuracy of  $\pm 0.25\%$  full span
- Analog output (4-20 mA)
- Operating temperature from  $-40^{\circ}\text{F}$  to  $185^{\circ}\text{F}$  ( $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$ )
- Not damaged by freezing water
- Vented cable, 2 wire, with drain (User specified length)
- Threaded housing for secure installation into pipes, tanks, and other applications
- Weighted copper nose cone

## Applications

- Well Monitoring
- Ground water monitoring
- Surface water monitoring
- Tank level monitoring
- Soil & ground water remediation
- Environmental impact and research studies
- Harsh environments

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The pressure transducer used is a “Wet-Wet” device. While it is important to keep the SDX cable’s vent tube unobstructed for barometric pressure compensation, this feature means neither the pressure transducer nor internal electronics are damaged by condensation or moisture entering the vent tube. For best results, Stevens recommends the desiccant cartridge with vent tube adapter.



Desiccant cartridge for use with SDX

Since 1911, Stevens Water Monitoring Systems, Inc. has provided complete water monitoring solutions including:

- Water Level Sensors
- Water Quality Sensors
- Soil Moisture Sensors
- Chart Recorders
- Staff Gages
- Telemetry Systems
- Data Collection Platforms

## Technical Specifications

### Power Requirements

14 - 35 VDC

### Output

4-20 mA current signal, linearly corresponding to range

### Operating Temperature

-40° F to 185° F (-40° C to 85° C)

### Compensated Temperature

32° F to 122° F (0° C to 50° C)

### Linearity

0-5 ft range: 0.2% max  
0-10 ft range: 0.2% max  
0-35 ft range: 0.3% max  
0-50 ft range: 0.3% max  
(0.1% typical for all ranges)

### Repeatability & Hysteresis

Typical: ± 0.2% span

### Wiring

Red: power  
Black: 4-20 mA return  
Silver: drain wire

### Overpressure

0-5 ft: 20 psi max  
0-10 ft: 20 psi max  
0-35 ft: 45 psi max  
0-50 ft: 45 psi max

### Shock

Qualification tested to 150 g

### Reverse Polarity Protection

Built into sensor

### Pipe Threading

1/2-14 Straight Pipe Thread  
(back of sensor housing near cable)  
  
3/8-18 Straight Pipe Thread  
(under removable copper nose-cone)

### Physical Size (Length x Diameter)

4.00 in x 0.84 in  
(101.6 mm x 21.33 mm)

### Weight (approximate)

Probe: 2.5 oz (70.87 g)  
Cable: 0.43 oz per foot (12.19 g)

## ORDERING INFORMATION

Part #	Description
93720-005	SDX Pressure Transducer, 0-5 ft range w/o cable
93720-010	SDX Pressure Transducer, 0-10 ft range w/o cable
93720-035	SDX Pressure Transducer, 0-35 ft range w/o cable
93720-050	SDX Pressure Transducer, 0-50 ft range w/o cable
44049	Vented cable, 2 wire, with drain (specify length when ordering)
93030-010	Desiccant cartridge with vent tube adapter, 10 cm length
93030-001	Desiccant cartridge with vent tube adapter, 20 cm length