

SDX Pressure Sensor DATA SHEET



Description

The Stevens SDX (Submersible Depth Transmitter) is a new pressure sensor that delivers accurate results while still remaining very affordable for a wide range of level measurement applications. The EPDM rubber housing with potted electronics makes the SDX extremely durable for most water and hostile fluid environments. The SDX is also an excellent choice for level measurement application 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.

Features

- Simple setup and configuration for a variety of applications
- Compact size
- Rugged housing and fully potted electronics
- Accuracy of $\pm 0.25\%$ full span
- Analog output (4-20 mA)
- Operating temperature from -40°F to 185°F (-40°C to 85°C)
- Vented cable, 2 wire, with drain
User specified length

Applications

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

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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

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 in 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.

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

0-10 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

Overpressure

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

Shock

Qualification tested to 150 g

Wiring

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

Physical Size (L x D)

2.96 in x 0.81 in
(75.18 mm x 20.57 mm)

Weight (approximate)

Probe: 3.83 oz
Cable: 0.43 oz per foot

Reverse Polarity Protection

Built into sensor

ORDERING INFORMATION	
Part #	Description
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
93030-001	Desiccant cartridge with vent tube adapter