SMART Temp

Smart SDI-12/RS-485 Temperature Sensor

The Smart Temp is a high precision digital temperature sensor that meets USGS guidelines. It features the ability to automatically sample temperature and calculate minimum, maximum, and average temperatures on a flexible time scale.

This sensor is ideal for high-accuracy readings in water, soil, and air. It features fully-potted components, robust PVC Type II housing, and marine-grade stainless steel, making the sensor ideal for harsh environments. Model 51163 is small enough to easily deploy through standard 1" (2.5cm) PVC conduit with 8" (20.3cm) factory bend corners. It also offers a loop hole which can be used to mount weights or pull the sensor through pipes or other small areas.

SDI-12 output provides universal compatibility with any SDI-12-enabled data logger and low power applications, or use the standard SDI-12 command set over an RS-485 physical interface for applications that require long cable runs or many sensors.

Model 51126

Model 51163

- Automatic minimum, maximum, and average calculations
- RS-485 and SDI-12 interfaces (auto-detecting)
- SDI-12 Ver 1.4 compliant
- Firmware updates through RS-485
- NIST certification available
- High-accuracy temperature measurement
- Extremely low current draw
- Works in water, soil, or air
- Durable 316 grade stainless steel tine for easy soil insertion (model 51126)
- Suitable for freshwater or marine applications
- Fully potted electronics
- Tough PVC Type II housing
- Celsius and Fahrenheit output
- No calibration required

TECHNICAL SPECIFICATIONS

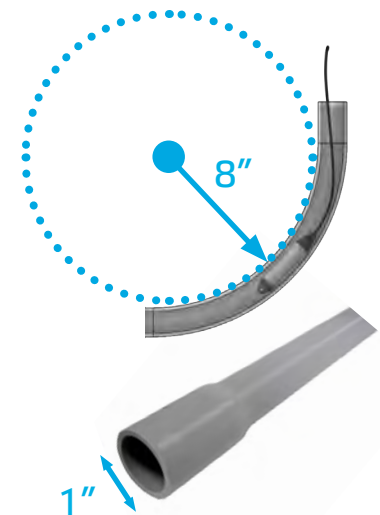|	
Sensor:	Silicon bandgap temperature sensor
Output:	SDI-12 v.1.4 and RS-485
Measurement Range:	-40°F to +140°F (-40°C to +60°C)
Accuracy:	±0.18°F (±0.1° C) from 23°F to 122°F (-5°C to +50°C) ±0.2°C outside this range
Resolution:	0.01°C
Current Draw:	Idle: 10 µA (SDI-12), 0.6 mA (RS485) Sample: 6 mA for 10 ms Transmit/receive: 6 mA for ~ 100 ms (depends on length of data) Peak: 30 mA for 1 ms during initial power-on
Units:	Configurable: Celsius or Fahrenheit
Dimensions:	4.95" (125.7 mm) L x 0.7" (17.8 mm) Ø (#51126) 3.56" (90.4 mm) L x 0.70" (17.8 mm) Ø (#51163)

ORDERING INFORMATION

PART #	DESCRIPTION
51126-025	Smart Digital Temperature Sensor, metal tine, 25' cable
51126-050	Smart Digital Temperature Sensor, metal tine, 50' cable
51126-100	Smart Digital Temperature Sensor, metal tine, 100' cable
51163-025	Smart Digital Temperature Sensor, compact housing, 25' cable
51163-050	Smart Digital Temperature Sensor, compact housing, 50' cable
51163-100	Smart Digital Temperature Sensor, compact housing, 100' cable
93924-002	Cable for custom lengths in excess of 100', specify length needed when ordering

NIST certification available upon request.

8"

1"

Model 51163 is easily deployed through standard 1" (2.5cm) PVC conduit with 8" (20.3cm) factory bend corners.

About Stevens Water

With a focus on simplicity, innovation and efficient solutions, Stevens Water are experts in hydrological and environmental monitoring. We've been providing complete water monitoring solutions since 1911.