



Blind Transmitter or Digital (S³L) Sensor

The Signet 2350 Temperature Sensor has a one piece injection molded PVDF body that is ideal for use in high purity applications. It also outlasts metal sensors in aggressive liquids and eliminates the need for costly custom thermowells. These sensors are available with a proprietary digital (S³L) output or field-scaleable 4 to 20 mA output.

Dual threaded ends (¾ in. NPT) allow submersion in process vessels, or in-line installation with conduit connection. An integral adapter kit (sold separately) may be used to create a compact assembly with field mount versions of the Signet 8350 Temperature Transmitter.

Features

- 4 to 20 mA or digital (S³L) output
- Standard ¾ in. NPT process connection
- One-piece injection molded PVDF body
- PT1000 platinum RTD in extended tip for quick response
- Easy installation
- Threaded for in-line or submersible installation



Applications

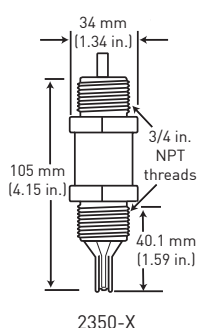
- Plating Bath Temperature Control
- Heat Exchange Monitor
- R.O. and D.I. System Monitor
- Hot/Cold Mixing System Monitor
- Data Acquisition
- Cooling Loops
- Effluent Monitoring
- HVAC
- Chemical Processing

Specifications

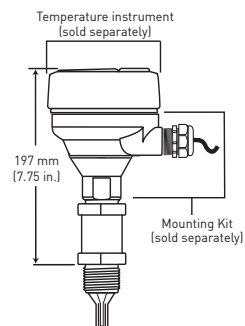
General		
Output		Digital (S³L) output or 4 to 20 mA
Accuracy		±0.5 °C (±0.9 °F)
Response Time, τ		10 secs.
Repeatability		±0.1 °C (±0.2 °F)
Resolution		0.01 °C (0.02 °F)
Sensing-End Connection		¾ in. NPT male thread
Cable-End Connection		¾ in. NPT male thread
Wetted Materials		
Sensor Housing		PVDF
Electrical		
Power Requirements		Type of output is automatically selected when appropriate power is applied.
	Digital (S³L)	5 to 6.5 VDC ±10%, <1 .5 mA
	4 to 20 mA	12 to 24 VDC ±10%, regulated
Cable Length		4.6 m (15 ft)
		15.2 cm (6 in.); cable length can also be extended up to 121 m (400 ft)
Cable Type		PVC jacketed, 3-conductor with shield 22 AWG, Blk/Red/White/Shld
Digital (S³L) Output		Serial ASCII, TTL Level 9600 bps.
		Reverse polarity and short circuit protected.
4 to 20 mA Output		
Accuracy		±32 µA
Resolution		<5 µA
Span		4 to 20 mA factory calibrated 0 °C to 100 °C (32 °F to 212 °F)
Max. Loop Impedance		50 Ω @ 12 V
		325 Ω @ 18 V
		600 Ω @ 24 V
Update Rate		<100 ms
Max. Temperature/Pressure Rating		
Operating Temperature		
In-line Mounting		-10 °C @ 16 bar to 100 °C @ 7.5 bar 14 °F @ 232 psi to 212 °F @ 108 psi
Submersible Mounting		-10 °C @ 16 bar to 85 °C @ 7.5 bar 14 °F @ 232 psi to 185 °F @ 108 psi
Storage Temperature		-55 °C to 100 °C -67 °F to 212 °F
Relative Humidity		0 to 95% non-condensing
Shipping Weight		
		0.22 kg 0.5 lb
Standards and Approvals		
		CE, FCC
		RoHS compliant, China RoHS
		Manufactured under ISO 9001 for Quality and ISO 14001 for Environmental Management and OHSAS 18001 for Occupational Health and Safety

See Temperature and Pressure graphs for more information.












Dimensions








2350-X



In-Line Installation

Panel Mount	Field Mount - Pipe, Tank, Wall	4 to 20 mA input	Integral Mount
Signet Instruments 8350 8900 9900	Signet Instruments 8350 9900 with 3-8050 Universal Mount Kit	Customer Supplied Chart Recorder or Programmable Logic Controller	Signet Instruments 8350 9900 with 3-8052 Integral Mount Kit
 	  + 	 OR 	  + 
Signet 2350 Temperature Sensor 			
In-Line Installation - Fittings Customer Supplied			All sold separately

Submersible Installation

Field Mount - Panel, Pipe, Tank, Wall
Signet Instruments 8350 8900 9900 with customer supplied pipe extension or conduit with 3/4 in. FNPT threads and pipe assembly*
   + 
Signet 2350 Temperature Sensor 
All sold separately

*Refer to the Signet Submersion brochure located in the K-Factors Fittings and More Kit (3-0000-709) for installation suggestions and options.

* For tank or wall mount installations, user must use the Universal Adapter Kit (3-8050).

Ordering Notes

3-2350-X sensor can be mounted with an instrument in an integral configuration by doing the following:

- 1) Order Integral adapter kit 3-8052 (sold separately) to connect the instrument (sold separately) directly onto the sensor.
- 2) Order an instrument (sold separately). The following instrument part numbers are compatible with the 2350 for integral mounting:
3-8350-3, 3-9900-1
- 3) Refer to the Signet Submersion brochure located in the K-Factors Fittings and More Kit (3-0000-709) for installation suggestions and options.

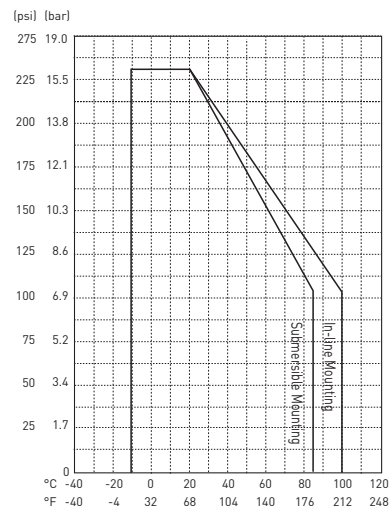
Application Tips

- For submersible sensor mounting, always use a water tight conduit and a cable gland to prevent moisture intrusion.
- To extend the cable, use a 3-conductor shielded cable and junction box.

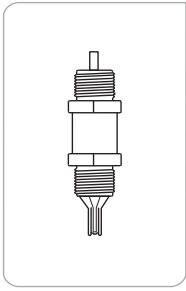
Operating Temperature/Pressure Graphs

Note:

The pressure/temperature graphs are specifically for the Signet sensor. During system design the specifications of all components must be considered. In the case of a metal piping system, a plastic sensor will reduce the system specification. When using a PVDF sensor in a PVC piping system, the fitting will reduce the system specification.



Ordering Information



Mfr. Part No.	Code	Output and Cable Length
Temperature Sensor		
3-2350-1	159 000 021	Digital (S ³ L) and 4.6 m (15 ft) cable
3-2350-3	159 000 920	Current (4 to 20 mA) and 4.6 m (15 ft) cable

Accessories and Replacement Parts

Mfr. Part No.	Code	Description
5523-0322	159 000 761	Sensor cable (per ft), 3 cond. plus shield, 22 AWG
3-8052	159 000 188	¾ in. Integral mounting kit
3-8052-1	159 000 755	¾ in. NPT mount junction box with one liquid tight connector and cap with junction terminals
3-9000.392-1	159 000 839	Liquid tight connector kit, NPT (1 connector)
3-9000.392-2	159 000 841	Liquid tight connector kit, PG 13.5 (1 connector)
3-0250	159 001 538	USB to digital (S ³ L) configuration/diagnostic tool
	Contact Factory	Custom cable length available

Please refer to Wiring, Installation, and Accessories sections for more information.