

Model 595
High Performance, Slimline,
Submersible Pressure Transducer



Setra System's Model 595 digitally compensated immersible pressure transducer has been specifically designed to meet the rigors of long term immersibility while providing the ultimate in level sensing technology. The 595 has built in specific gravity compensation so it gives a true level reading even when the media is subject to temperature changes over the ranges -5° to +45°C.

Manufactured with 318 stainless steel wetted parts, which provide excellent corrosion resistance, the 595 can be adjusted via the cable by means of a PC or a hand-held interface which reduces

the installation time and removes the need to withdraw the unit from the media for calibration.

The SDI-12 communicating version offers minimal current draw for battery powered applications. Alternatively a high accuracy 4-20mA output can be configured for use with non-communication data recorders. A custom designed hermetic header guarantees that water cannot enter the transducer even on the longest cable run. The sensor housing itself is impervious to the effects of water, guaranteeing long service life even in areas of high humidity which can cause condensation.

Pressure Ranges	
Range	Factory Calibrated
0 to 5 mWG	5 mWG
0 to 10 mWG	6 to 10 mWG
0 to 20 mWG	11 to 20 mWG
0 to 40 mWG	21 to 40 mWG

Applications

- Groundwater Monitoring
- Sewer Flow Monitoring
- Stormwater Studies
- Stream Flow Monitoring
- Infiltration/Inflow Studies
- Pump Tests
- Irrigation
- Flood Warning
- Sea Level Monitoring
- Wave & Tide Management

Benefits

- Slim Profile - 20 mm dia.
- Corrosion Resistance
- Remote Adjustment
- Low Current Draw
- True Level Reading
- Triple Sealed
- Meets CE Conformance Standards



When it comes to a product to rely on - choose the Model 595. When it comes to a company to trust - choose Setra.



Visit Setra On-line:
<http://www.setra.com>

setra
800-257-3872

Model 595 Specifications

Performance Data

Accuracy RSS* (at constant temp)	±0.05% FS
Long Term Drift	±0.05% FS year
Total Error Band	<±0.1% FS (-5 to 45°C)

Thermal Effects

Compensated Range °F (°C)	+23 to +113 (-5 to +45)
---------------------------	-------------------------

Pressure Ranges	0 to 5 mWG to 0 to 40mWG
Proof Pressure	1.5 x Fs nominal range
Burst Pressure	3 x FS
Fatigue Life	Designed for 100 million FS cycles

Environmental Data

Temperature	
Operating °F (°C)	-13 to +158 (-25 to +70 non-freezing)

Pressure Media

Liquids, highly viscous liquids, slurries, and sewage sludge.

Physical Description

Case	318 Stainless Steel
Wetted Parts	318 Stainless Steel, Polyurethane, Acetal
Enclosure	IP68 to 200mWg Approvals CE
Pressure Port	Nosecone (M16x1.5 for calibration)
Vibration	35 peak sinusoidal, 5 to 2000 Hz
Shock	Withstands free fall to IEC 68-2-32, procedure 1
Electrical Connection	Polyurethane Cable
Weight	~100 grams (Cable 75 g/m)
Approvals	CE

Electrical Data (Current)

Current Output Units	
Output	4-20mA (2 wire)
Loop Supply Voltage	24 VDC, (8-28 Vdc)
Maximum Loop Resistance	(Vs-8) x 50 ohms

Specifications subject to change without notice.

Electrical Data (Current) cont'd

SDI-12 Digital Communications

Output	SDI-12 (Temp output ±1/2°C)
Supply Voltage	9.6 to 16 (SDI-12)
Current Consumption	Standby less than 400uA Active less than 4mA average
Interface	SDI-12 Version 1.3

Accessory: Model 299 Dri-Sense

Termination Enclosure

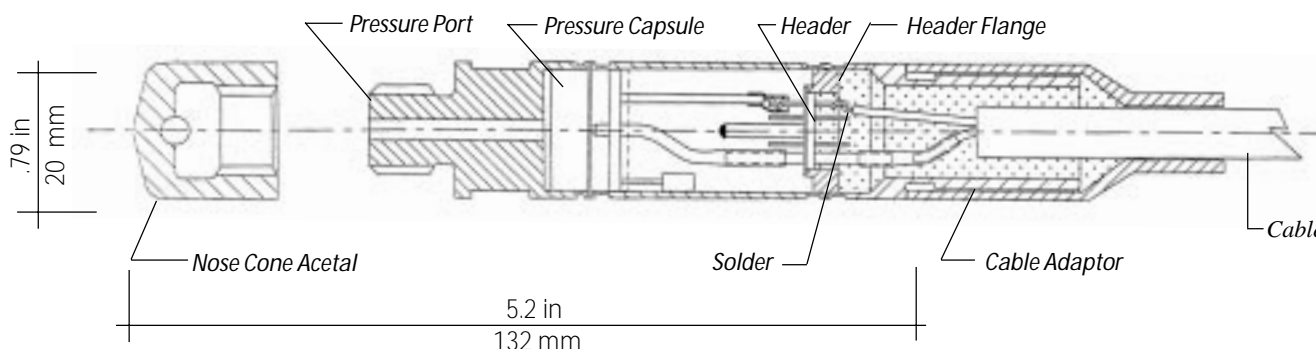


Designed to eliminate failure in the field caused by humidity seeping into the transducer through the cable, the Model 299 has a desiccating cover to adsorb moisture.

Features:

- Visible Desiccant Status Indicator...changes from blue (dry) to pink (saturated)
- Easily Replaceable Desiccating Cover
- Replaceable Terminal Interface Circuit Board
- Surge Suppression to 2000 Volts

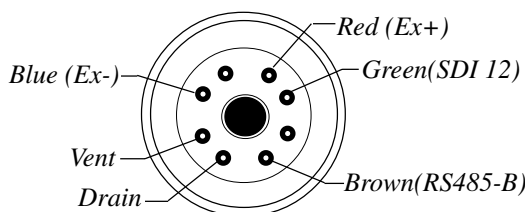
Outline Drawing



Electrical Connection

Wiring Details (cable fitted)

Red	Positive Excitation
Blue	Negative Excitation
Green	SDI 12
Brown	RS485-B



ORDERING INFORMATION

Code all blocks in table.

Example: Part No. 5951005WDGW1CA10 for a 595 Pressure Transducer, 5 mWg (16.4 ft.WG) Gauge Pressure, G1/4" at External thread w/nosecone, RS485 Excitation, 10m Cable

5	9	5	1		G	W	1			
Model	5951-595			Pressure Range	G = Gauge	Pressure Conn.	W1 = G1/4" at External Thread with Nosecone	Output	Electrical Conn.	
	005WD = 5 mWG (16.4 ft.WG)							CA = RS485	XX = Cable (Length in meters)	
	010WD = 10 mWG (33 ft.WG)							D1 = SDI-12/4 to 20 mA		
	020WD = 20 mWG (66 ft.WG)							11 = 4 to 20 mA, 2 wire		
	040WD = 40 mWG (131 ft.WG)							DA = SDI-12		
	ZZZWD* = 5 mWG (16.4 ft.WG) to 40 mWG (131 ft.WG)									

*Where ZZZ = Range in one mWG increments from 5 to 40 mWG

While we provide application assistance on all Setra products, both personally and through our literature, it is the customer's responsibility to determine the suitability of the product in the application.