



Ported Nose

Piezometer Nose with sintered stainless steel porous filter.

SPECIFICATIONS	
ITEM	SPECIFICATION
Accuracy	±0.1% FS T.E.B.**
Standard Pressure Ranges	0 - 1 m through 0 - 300 m
Compensated Temp. Range	-10°C to 80°C
Field Rangeability	Yes
Pressure Output	0 to 5 VDC 4 to 20 mA, RS485
Temperature Output	Optional
Wetted Materials	Standard 316L SS Polyamide Fluorocarbon
Electrical Termination	Vented Hytrel Cable or Sealed Cable
Level Range (user specified)	Infinite between 0 to 3 through 0 to 900 ft. WC
Dimensions	109 mm X Ø21 mm

ELECTRICAL CABLE SPECIFICATIONS			
VENTED CABLE		SEALED CABLE	
ITEM	SPECIFICATION	ITEM	SPECIFICATION
Material	Polyurethane jacketed shielded cable with polyethylene vent tube and Kevlar® tension members.	Material	Two twisted pairs cable with polyurethane jacket.
Pull Strength	200 lbs.	Part #	EL380004
Conductors	22 AWG		
Weight	0.04 lb./ft. (approx.)		

	<b>PRODUCT CATEGORY:</b>
	PIEZOMETERS + TRANSDUCERS

# Strain Gauge Piezometer

The Strain Gauge Piezometer is specifically designed to meet the rigorous environments encountered in level measurement applications and to provide repeatable, precision depth measurements. It is available with either a ported nose cap or a piezometer nose incorporating a sintered stainless steel porous filter. Other versions include a drive point version, a Ø 16 mm version, a titanium version and a wireline cable (see back for details) version.

Ideal for small bore applications, and the ability to withstand rigorous environments encountered in ground and sea water depth measurements, the Strain Gauge Piezometer can also be used for dynamic pore pressure measurement applications. Highly reliable multi-stage transient\* protection is standard for 4-20 mA and RS-485 output. Each unit is shipped with a calibration card that specifies I/O conditions as well as actual data reflecting the unit's static accuracy and thermal characteristics.

> APPLICATIONS	
Ground water and surface water monitoring.	
Well monitoring.	Deep aquifer measurement.
Hydrostatic pressure.	Percolation tests.
Sea water depth.	Site remediation.
Dewatering.	Drawdown.
Slug tests.	Dams.

> FEATURES	
16-bit internal digital error correction.	
316L SS flush-diaphragm sensor.	
Small, rugged package withstands harsh environments.	
Being calibrated and serialized, insures performance and NIST traceability.	
Broad selection of pressure ranges offer a standard range for your specific requirements.	
Unique cable seal system ensures water-tight integrity.	

Full temperature compensation provides accurate data over extreme temperature excursions.

Instrumentation signal compatibility operates with RST data loggers and computer data acquisition systems.

OUTPUT SPECS		
SUPPLY	VDC	8 - 28 VDC
OUTPUT	2 wire analog	4 - 20 mA
	4 wire analog	0 - 5 VDC
	4 wire analog	RS485

\* Conducted transients from indirect lightning activities. \*\* T.E.B.: Total Error Band: Includes the combined effects of non-linearity, hysteresis and non-repeatability as well as thermal dependencies, over the compensated temperature range, expressed as a percentage of the Basic Range. All intermediate ranges are realized by deranging from standard Basic Ranges of 30, 100, 300 and 900 ft WC.

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ORDERING INFO		
<b>&gt;&gt; PLEASE STATE REQUIRED RANGES &amp; CABLE LENGTHS WHEN ORDERING</b>		
ITEM	PART #	
<b>VENTED - WITH OPEN PORTED NOSE</b>		
Voltage output 0 - 5 Volts	ELSGP500V	
4-20 mA output	ELSGP510V	
RS485 output	ELSGP520V	
<b>SEALED - WITH OPEN PORTED NOSE</b>		
Voltage output 0 - 5 Volts	ELSGP500S	
4-20 mA output	ELSGP510S	
RS485 output	ELSGP520S	
<b>SEALED - WITH PIEZOMETER NOSE</b>		
Voltage output 0 - 5 Volts	ELSGP501S	
4-20 mA output	ELSGP511S	
4-20 mA output (titanium)	ELSGP515S	
RS485 output	ELSGP521S	
<b>SEALED - WITH DRIVE POINT</b>		
4-20 mA output (CPT)	ELSGP510S-DCP	
4-20 mA output (EXT)	ELSGP510S-DPE	
0-5 V output (CPT)	ELSGP500S-DCP	
<b>SEALED - WITH BLADDER (FOR BRINE/ACIDIC ENVIRONMENTS)</b>		
4-20 mA output	ELSGP512S	
OTHER ORDERING INFO		
Cable length	Sealed or vented	
Pressure range	Ported nose cap, piezometer nose cap, or drive point	
OPTIONAL EQUIPMENT		
Readout	Data Loggers	Terminal Stations

# Strain Gauge Piezometer



PRODUCT CATEGORY:  
PIEZOMETERS + TRANSDUCERS



The Strain Gauge Piezometer with 16 mm outside diameter is the smallest diameter submersible level transmitter in its class.

## FEATURES FOR Ø 16 MM PIEZOMETER

Class-leading 16 mm outside diameter is ideal for driven well applications.
Built-in surge protection minimizes damage due to ground transients.
User-rangeable analog output ensures compatibility as requirements change.
RS485 modified-MODBUS compatible. Up to 128 transmitters on a single bus.
Standard, dual (analog & RS485) outputs simplify interface to data collection systems.

## SPECIFICATIONS FOR Ø 16 MM PIEZOMETER

ITEM	SPECIFICATION
Accuracy	±0.25% or ±0.1% FS T.E.B.**
Standard Pressure Ranges	0 - 3 through 0 - 900 ft WC
Compensated Temp. Range	0°C to 50°C
Field Rangeability	Yes
Supply	10 - 30 VDC
Pressure Output	4 to 20 mA, RS485
Temperature Output	RS485
Load Resistance (Ω)	mA: < (Supply - 10V) / 0.02A
Wetted Materials	Standard 316L SS Polyamide Fluorocarbon
Cable (maximum continuous length: 1000 ft.)	Hytrel-jacketed, vented & shielded (optional Tefzel® or Polyethylene jackets)
Surge Protection	Supply and RS485: 200A @ 8/20 μs GND/Case: 2000A @ 8/20 μs
Dimensions	123 mm X Ø16 mm

## ORDERING INFO FOR Ø 16 MM PIEZOMETER

ITEM	PART #
Strain Gauge Piezometer - SEALED Ø 16 mm, Open Ported Nose, 4-20mA output	ELSGP550S
Strain Gauge Piezometer - VENTED Ø 16 mm, Open Ported Nose, 4-20mA output	ELSGP550V



The Strain Gauge Piezometer on a Wire Line is designed to withstand turbulent waters when monitoring levels in reservoirs and streams. Please contact RST for details.

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