



**!** PRODUCT CATEGORY:  
PIEZOMETERS + TRANSDUCERS

# Strain Gauge and Vibrating Wire Pressure Transducers

Strain Gauge and Vibrating Wire Pressure Transducers are used for uplift measurement in the foundation of concrete dams, overflow settlement measurement in earthfill and rockfill dams, and all other applications where a rugged and reliable pressure transducer is required for measuring fluid pressure in closed circuits.

The pressure transducer comes with a 1/4" NPT thread, or NPT port, for easy connection to pipes or other components of the hydraulic circuit to be monitored. The strain gauge transducers can be read dynamically if required by the application.

Highly reliable lightning protection is standard for the strain gauge transducer with 4-20 mA output and for the vibrating wire transducer.

## > APPLICATIONS

- Uplift pressure measurement in concrete dam foundations.
- Retrofit of earthfill dam settlement systems.
- Fluid pressure measurement in closed circuits.

## > FEATURES

- 1/4" NPT port or thread.
- Small, rugged package withstands harsh environments.
- Unique cable seal system ensures water-tight integrity.
- Broad selection of pressure ranges offer a standard range for your specific requirements.
- Instrumentation signal compatibility operates with RST dataloggers, and computer data acquisition systems.

## > BENEFITS

- ✓ Increase Safety
- ✓ Increase Productivity
- ✓ High Accuracy
- ✓ High Reliability



Vibrating Wire Transducer  
with 1/4" NPT Port

Strain Gauge Transducer  
with 1/4" NPT Thread

# Strain Gauge and Vibrating Wire Pressure Transducers



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## SPECIFICATIONS + ORDERING

### SPECIFICATIONS: STRAIN GAUGE TRANSDUCER

ITEM	SPECIFICATION
Accuracy	±0.1% FS
Standard Pressure Ranges	0.035 through 21 MPa
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	Sealed Cable
Dimensions	109 mm X Ø25 mm
NPT Thread	1/4 inch (standard) other sizes available

### SPECIFICATIONS: VIBRATING WIRE TRANSDUCER

ITEM	SPECIFICATION
Over range	2 X F.S.
Resolution	0.025% F.S. minimum
Accuracy	0.1% F.S.
Operating Temperature	-20 to 80°C (-4 to 176°F)
Diaphragm Displacement	<0.001 cc at F.S.
Thermal Zero Shift	<0.05% F.S./°C
Materials	Hermetically sealed stainless steel housing
Thermistor Type	NTC 3K Ohms @ 25°C
Thermistor Interchangeability	±0.2°C
Thermistor Resolution	0.1°C
Dimensions	150 mm X 25 mm

### ORDERING

ITEM	PART #
<b>STRAIN GAUGE TRANSDUCER 1/4" NPT THREAD</b>	
Voltage output 0 - 5 Volts	ELSGT600
4-20 mA output	ELSGT610
RS485 output - Sealed	ELSGT620
<b>VIBRATING WIRE TRANSDUCER 1/4" NPT PORT</b>	
0.07 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-0.07
0.175 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-0.175
0.35 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-0.35
0.7 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-0.7
1.0 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-1.0
2.0 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-2.0
3.0 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-3.0
5.0 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-5.0
7.5 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-7.5
10 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-10
35 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-35
75 Mpa Vibrating Wire Transducer with 1/4" NPT Port	VW2180-75
<b>ELECTRICAL CABLE</b>	
Two twisted pairs cable with polyurethane jacket.	EL380004
<b>OPTIONAL READOUTS</b>	
4-20 mA Transmitter Readout - IR420	ELIR420
Voltage Transducer Readout - IR5000	ELIR5000
Vibrating Wire Readout - VW2106	VW2106
<b>ADDITIONAL ORDERING INFO</b>	
Cable length required.	
Pressure range.	
Output type.	