

	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 transducers come with either a 1/4" NPT thread or a 1/4" or 1/8" NPT port, for easy connection to pipes or other components of the hydraulic circuit to be monitored. Both transducers can be read dynamically if required by the application.

Highly reliable lightning protection is standard for the strain gauge transducer 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 data loggers, 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

WORKS WITH

READY TO RUN

- pre-assembled
- pre-wired
- pre-tested
- pre-programmed

# 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 MPa through 103 MPa
Compensated Temp. Range	-10°C to 80°C
Field Rangeability	Yes
Signal Output	4-20 mA 0-5 VDC 0-10 VDC 4-20 mA + RS485 0-5 VDC + 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 male with a 1/4" or 1/8" NPT thread

SPECIFICATIONS: VIBRATING WIRE TRANSDUCER	
ITEM	SPECIFICATION
Over range	1.5 X F.S.
Resolution	0.025% F.S. minimum
Accuracy	0.1% F.S.
Standard Pressure Ranges	0.07 through 20 MPa
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
NPT Thread	1/4 inch female with a 1/4" or 1/8" NPT thread

ORDERING	
ITEM	PART #
<b>STRAIN GAUGE TRANSDUCER 1/4" NPT THREAD</b> (0 - 3 MPa range)	
4-20 mA output - Sealed	ELSGT610
<b>STRAIN GAUGE TRANSDUCER 1/4" NPT THREAD</b> (>3 MPa range)	
4-20 mA output - Sealed	ELSGT611
<b>VIBRATING WIRE TRANSDUCER 1/4" OR 1/8" FEMALE NPT PORT</b>	
0.07 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-0.07-TEPC VW2180-0.07-SS
0.17 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-0.17-TEPC VW2180-0.17-SS
0.35 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-0.35-TEPC VW2180-0.35-SS
0.7 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-0.7-TEPC VW2180-0.7-SS
1.0 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-1.0-TEPC VW2180-1.0-SS
2.0 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-2.0-TEPC VW2180-2.0-SS
3.0 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-3.0-TEPC VW2180-3.0-SS
5.0 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-5.0-TEPC VW2180-5.0-SS
7.5 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-7.5-TEPC VW2180-7.5-SS
10 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-10-TEPC VW2180-10-SS
20 Mpa Vibrating Wire Transducer with 1/4" or 1/8" female NPT Port	VW2180-20-TEPC VW2180-20-SS
Contact RST for larger pressure ranges if needed.	
<b>ELECTRICAL CABLE</b>	
Two twisted pairs cable with polyurethane jacket.	EL380004
<b>READOUT AND DATA LOGGER</b>	
Vibrating Wire Readout - VW2106	VW2106
5/10 Channel 4-20MA Transmitter Data Logger/Thermistor Data Logger	DT4205
RSTAR Affinity Data Logger	
<b>ADDITIONAL ORDERING INFO</b>	
Cable length required.	
Pressure range.	
Output type.	