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> PRODUCT CATEGORY: PIEZOMETERS + TRANSDUCERS

RST Instruments Ltd. 11545 Kingston St., Maple Ridge, BC V2X 0Z5 Canada





# 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 data loggers, and computer data acquisition systems.

## > BENEFITS

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



Strain Gauge Transducer with 1/4" NPT Thread



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# **Strain Gauge and Vibrating Wire Pressure Transducers**



# **SPECIFICATIONS + ORDERING**

SPECIFICATIONS: STRAIN GAUGE TRANSDUCER	
ITEM	SPECIFICATION
Accuracy	±0.1% FS
Standard Pressure Ranges	0.035 through 100 MPa
Compensated Temp. Range	-10°C to 80°C
Field Rangeability	Yes
Pressure Output	4 to 20 mA
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

### **SPECIFICATIONS: VIBRATING WIRE TRANSDUCER**

ITEM	SPECIFICATION
Over range	2 X F.S.
Resolution	0.025% F.S. minimum
Accuracy	0.1% F.S.
Standard Pressure Ranges	0.07 through 75 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

ORDERING		
ITEM	PART #	
STRAIN GAUGE TRANSDUCER 1/4" NPT THREAD (0 - 3	MPa range)	
4-20 mA output - Sealed	ELSGT610	
STRAIN GAUGE TRANSDUCER 1/4" NPT THREAD (>3 M	IPa range)	
4-20 mA output - Sealed	ELSGT611	
VIBRATING WIRE TRANSDUCER 1/4" NPT PORT		
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	
ELECTRICAL CABLE		
Two twisted pairs cable with polyurethane jacket.	EL380004	
READOUT		
Vibrating Wire Readout - VW2106	VW2106	
ADDITIONAL ORDERING INFO		
Cable length required.		
Pressure range.		
Output type.		