Total Earth Pressure Cell

Description

Total Earth Pressure Cells are designed to measure stress acting on plane surfaces. Total Earth Pressure Cells are constructed from two circular stainless steel plates, welded together around their periphery. The annular space between these plates is filled with deaired glycol. The cell is connected via a stainless steel tube to a transducer forming a closed hydraulic system. The stress is then converted to a signal and may be remotely read on a variety of portable readout units or data loggers.

RST Total Earth Pressure Cells are calibrated as a complete assembly (rather than just the sensor) to capture the calibration of the complete cell for highest quality of data.

TOTAL EARTH PRESSURE CELL SPECIFICATIONS

ITEM	MODEL LPTPC-V	MODEL LPTPC-S
Transducer Type	Vibrating Wire	Silicon Strain Gauge
Range - Standard Calibration	Up to 2.0 MPa (300 psi)	Up to 2.0 MPa (300 psi)
Range - Max Available	20 MPa (3000 psi)	20 MPa (3000 psi)
Calibrated Accuracy	0.15% F.S.	0.15% F.S.
Resolution	0.025% F.S. minimum	Infinite
Excitation Voltage	5 V sq. Wave	Dependent on sensor
Signal Output	1200 - 2000 H_Z	4-20 mA 0-5 VDC 0-10 VDC 4-20 mA + RS485 0-5 VDC + RS485
Thermistor	Yes (standard)	Optional (can be added)
Conductor	4 X #22 (2 for VW, 2 for Thermistor)	4 X #22 | 2 X #22
Operating Temperature	-29Â° to +80Â°CÂ -20Â° to +176Â°F	-29Â° to +80Â°CÂ -20Â° to +176Â°F

*Various types of strain gauge transducers are available, contact RST for info.
SPECIFICATIONS