



SPECIFICATIONS		
DESCRIPTION	MODELS	
	LPTPC-V	LPTPC-S
Transducer Type	Vibrating Wire	Silicon Strain Gauge
Range - Standard Calibration	Up to 3.0 MPa (435 psi)	Up to 3.0 MPa (435 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 - 3550 Hz	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	-20 °C to +80 °C / -4°F to +176 °F	

ORDERING EXAMPLE: LPTPC-Ø-X-RANGE-MOUNT	
FIELD	DESCRIPTION
Ø	Nominal cell diameter: 9" or 12"
X	Sensor type: V= Vibrating Wire, S= Silicon Strain Gauge
R	Range group: LP= Low Pressure, HP= High Pressure, Blank= Standard
RANGE	Pressure ranges in MPa (LP: 0.07 and 0.17, Standard: 0.35, 0.7, 1.0, 2.0 and 3.0MPa, HP: 5.0, 10.0, and 20.0 MPa)
MOUNT	Mounting option: blank= No Ears, 4EARS= 4-point ear mount

	PRODUCT CATEGORY:
	LOAD CELLS + PRESSURE SENSORS + STRESS METERS

Total Earth Pressure Cell

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.

> APPLICATIONS	
Earth embankments and dams.	Foundations, retaining walls, and piles.
Pipelines and culverts.	Railroad bases.
Beneath raft foundations.	Tunnel linings.
Mine backfill monitoring.	

> FEATURES	
Long term stability.	High accuracy and sensitivity.
Constant monitoring capability.	Ease of data logging.
Stainless steel construction.	Either vibrating wire or strain gauge transducers.
The transducer is located 46 cm (18 in.) from the cell to avoid any influence from the transducer housing.	A 20:1 height to diameter ratio minimizes the effects of stress distribution on the mean plane. (9 in. and 12 in. models)

ORDERING INFO					
RANGE CATEGORY	PRESSURE RANGE	SENSOR TYPES	NOMINAL DIAMETERS	MOUNTING OPTIONS	ORDERING EXAMPLE
Low Pressure (LP)	0.07 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-9-V-LP-0.07-4EARS
	0.175 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-9-S-LP-0.175
Standard (--)	0.35 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-9-V-0.35-4EARS
	0.70 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-9-S-0.7
	1.0 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-12-V-1.0
	2.0 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-9-V-2.0-4EARS
	3.0 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-9-S-3.0
	5.0 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-12-S-HP-5.0
High Pressure (HP)	10.0 MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-9-V-HP-10.0-4EARS
	20.0MPa	Vibrating Wire/ Strain Gauge	9", 12"	No ears/ 4EARS	LPTC-12-S-HP-20.0

OTHER ORDERING INFO	
ITEM	PART #
Standard Cable	EL380004
Heavy Duty Cable	EL380004HDL
Cable with HDPE Jacket	EL342202
Mounting Ears (4 tabs)	LPTPC-4EARS