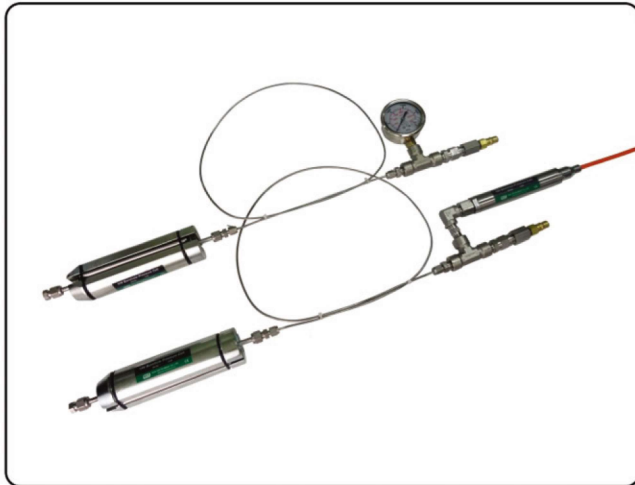


VW borehole pressure cell



Description

Model 1339 **VW borehole pressure cell** is designed to measure compressive stress of BX drill($\varnothing 60\text{mm}$) hole at rock, concrete structures, and salt mine and so on.

It is composed of cell and pressure plates. The cell includes oil inside and the pressure plates are divided upper and lower for delivering pressure to cell. Also, it is required the setting tool for installation inside of borehole.

According to sensor type, VW sensor type is for model 1339 and bourdon pressuremeter is for model 1339A.

Applications

It is designed to measure changes of compressive stress in rock, mine, concrete structures.

It should be installed by setting tool at inside of BX borehole.

Specification

Model	1339	1339A
Sensor element	Vibrating wire sensor	Bourdon pressuremeter
Range	20, 35, 70MPa	
Resolution	0.025%FSR	
Accuracy	$\pm 0.1\%$ FSR	
Nonlinearity	$\pm 0.5\%$ FSR	
Operating temperature	$-40\sim 80^{\circ}\text{C}$	
Built-in temperature device	Thermistor (3k Ω)	
Borehole diameter	$\varnothing 60\text{mm}$ (BX drill) diamond drill	
Weight	3.2kg	
Max. depth of installation	30m	
Waterproof	105m H ₂ O	
Materials	Stainless steel, alloyed steel	
Signal cable	$\varnothing 6.4\text{mm}$, 0.37mm ² × 4C shielded PVC sheath cable	

Features

- No influence by length of cable and resistance
- Possible to measure real time
- Measuring compressive stress of rock directly
- Measuring pressure change directly in case of using bourdon pressuremeter

The readout

It is connected to the system such as the VW readout units, data loggers to be data logging and data acquisition system to monitor readings. It is compatible with other company's readout unit.

- ACE-800 (VW readout)
- ACE-1000 (VW data recorder)
- ACE-1100 series (VW mini logger)
- ADL-16V (VW data logger)
- ADL-200A (Smart logger)
- VL Module (Smart LoRa system)

