



MODEL SME-2070/2071

EARTH & CONCRETE PRESSURE CELL

FEATURES

- * Excellent long term stability
- * All stainless steel body
- * Suitable for remote data
- * Reliable & Rugged design



APPLICATION

SME make Earth & Concrete pressure cells model 2070/2071 are very useful for the following application:

- * Suitable for total stress measurement in Dam & Barrage.
- * Suitable for radial & tangential stress measurement in tunnel lining.
- * Suitable for total stress / pressure measurement in Cavern, Piles & Piers

DESCRIPTION

SME model 2070 series earth pressure cell are generally installed within fills to determine the total stress in Earthen Dam, embankment, fills, under railway track, pile foundation or piers.

SME model 2071 series concrete pressure cells are used for measurement of total stresses in concrete Dam, retaining walls, culverts piles, slurry walls and beneath shallow foundations.

The basic construction of a vibrating wire earth pressure cell is basically comprises of minimum one active diaphragm mounted with a pretension vibrating wire pressure sensor. The gap between the pressure pad and sensor is filled with suitable oil (generally silicon oil). In quench tube model SME 2071 post stressing is possible after primary installation to avoid the shrinkage gap in concrete to fill up the air gap.

When its diaphragm deflects due to some external pressure the pre-stretched wire get tension or loosed according to its design accordingly change in natural frequency. Data in terms of frequency time period or direct in engg. unit can be taken by the readout unit

ADVANTAGE

The vibrating wire principle make the earth pressure cell most reliable as frequency output makes the sensors suitable for long term stability. The output of sensor is virtually unaffected by stray current, cable resistance. The basic advantage of vibrating wire sensor is that it can provide reliable data for longer cable length as long as one Kilometer.

SPECIFICATIONS

Model	:	SME 2070, 2071
Range	:	0-5 to 0-50 kg/cm ²
Accuracy	:	± 1% FS standard (± 0.5% on demand)
Over Range	:	150% fs
Sensitivity	:	0.01% fs
Thermister	:	Provided
Dimensions	:	Dia. 225 x 10 mm thick

ACCESSORIES

- * Readout unit model SME 2460-S
- * Terminal box.
- * Cable joint kit.

Due to continuous development program the specification and dimensions are subject to change without notice. Our engineers do undertake the work for development as per the customer's requirement.

Sensors & Measurements Enterprises

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