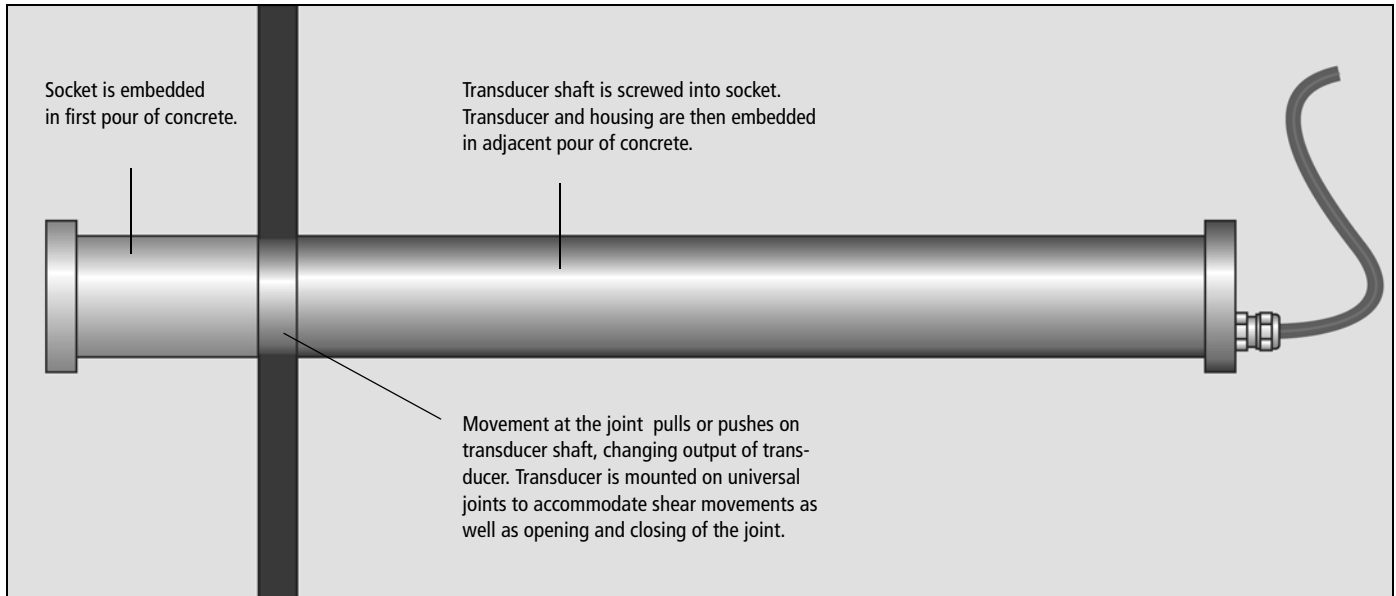


VW Embedment Jointmeter



Applications

The VW embedment jointmeter is embedded in adjacent pours of mass concrete to monitor movement at joints. It is typically installed in mass concrete structures such as abutments, foundations, and dams.

Installation and Operation

Components of the jointmeter include a socket, a transducer housing, and a submersible VW displacement transducer.

The socket is plugged and embedded in the first pour of concrete. The transducer housing is then inserted through the adjacent form and the transducer shaft is screwed into the socket. The pour of concrete into this form embeds the jointmeter.

Now the jointmeter spans the joint. Opening and closing of the joint pulls or pushes the shaft of the transducer, causing a change in reading.

The initial reading is used as a datum. Subsequent readings are compared to the datum to calculate the magnitude and rate of movement at the joint.

Advantages

High Accuracy: The VW jointmeter detects changes as small as 0.15 mm with a repeatability of ± 0.3 mm.

Accommodates Shear: The transducer is mounted on universal joints so that it can accommodate shear movements as well as opening and closing of the joint.

Temperature Measurement: The VW jointmeter is equipped with a temperature sensor.

Manual or Automatic Readings: The jointmeter connects easily to a data logger for unattended monitoring.

VW EMBEDMENT JOINTMETER

Jointmeter52632244

The VW embedment jointmeter includes a VW submersible displacement transducer with built-in thermistor or RTD, a transducer housing, and a socket with plug for installation. Signal cable is ordered separately.

Range: 50 mm (2")*.

Resolution: 0.025% FS.

Calibration Accuracy: $\pm 0.1\%$ FS.

Repeatability: $\pm 0.5\%$ FS.

Waterproof: 17 bar (250 psi)*.

Materials: 300-series stainless steel.

Socket Size: 51 mm diameter, 90 mm long (2 x 3.5"), Stainless Steel.

Transducer Housing: 51 mm diameter, 420 mm long (2 x 16.5"), PVC.

*Other ranges and waterproof ratings can be quoted on request.

SIGNAL CABLE

Signal Cable 50613524

Shielded cable with four 22-gauge tinned copper conductors and polyurethane jacket.

Universal Terminal Box 57711600

Provides connections for 12 sensors and an indicator. Sensors selected by rotary switch. Weatherproof fiberglass box measures 290 x 345 x 135 mm deep (11.5 x 13.5 x 5.25").

Universal Connector 57705001

Optional connector. Not used when signal cable is terminated at data logger or terminal box.

READOUTS & DATA LOGGERS**Readouts**

VW Data Recorder and other pluck-type VW readouts. See separate data sheets.

Data Loggers

Campbell Scientific CR10X with VW interface and AM16/32 multiplexer can accommodate 16 transducers with temperature readings or 32 transducers without temperature readings. See separate data sheet.