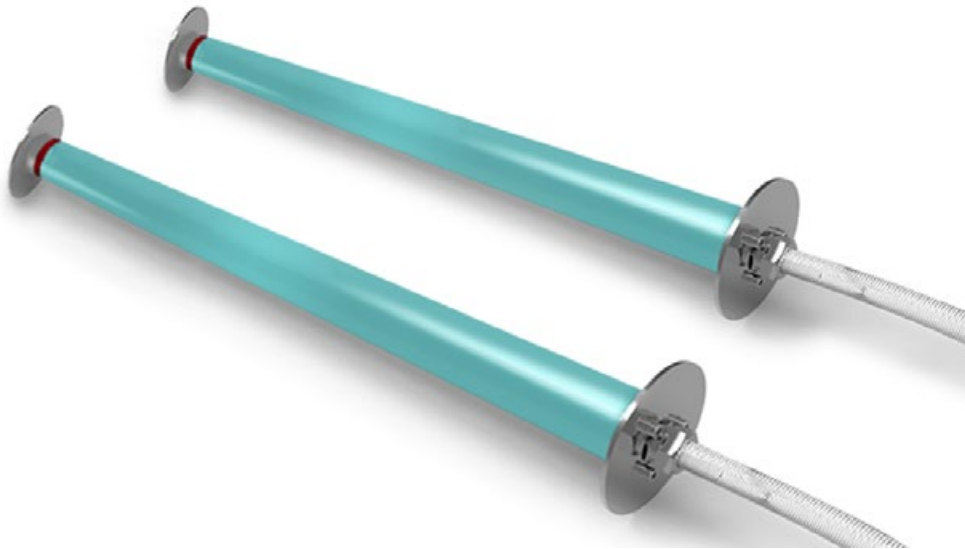


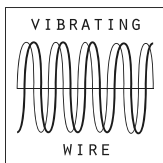
D233

— VIBRATING WIRE
DEFORMATION
METERS

EXTENSOMETERS
& JOINTMETERS



VIBRATING WIRE DEFORMATION METERS



VW deformation meters (also named LBSG - Long Base Strain Gauges) are mainly designed to be embedded into concrete or RCC dams in order to measure expansion of induced joints.

Deformation meter consists of a vibrating wire displacement transducer housed into a PVC tube having a steel flange on each end. The two flanges are connected to the displacement transducer in order to convert the axial instrument displacement in electrical signal. The electrical cable output is protected for the first meter by a stainless steel protective sleeve.

The instrument standard length is 1 meter; custom lengths are available on request.

APPLICATIONS

- Expansion or contraction of induced joint in RCC dams
- Monitoring of joint movements in concrete structures
- Closures in underground works
- Displacements in concrete dam body

FEATURES

- Available with different displacement transducer measuring range
- Extremely rugged
- Different lengths available on request
- Automatic reading in unattended location allowed with OMNIAlog logger family



Meet the essential requirements of the EMC Directive 2014/30/EU

TECHNICAL SPECIFICATIONS

PRODUCT CODES	0D233025L10	0D233050L10	0D233100L10	0D233150L10
Measurement principle	vibrating wire with built-in thermistor			
Measuring range	0 - 25 mm	0 - 50 mm	0 - 100 mm	0 - 150 mm
Accuracy Pol. MPE ⁽¹⁾	< ±0.50% FS	< ±0.30% FS	< ±0.30% FS	< ±0.30% FS
Output signal	frequency (VW), resistance (T)			
Sensitivity ⁽²⁾	see calibration report			
Typical frequency range ⁽³⁾	2250 - 3000 Hz			
Operating temperature	-20°C +80°C			
Anchors type	steel flanges Ø 100 mm, thickness 4 mm			
Pipe dimensions	Ø 48 mm, length 1000 mm (other lengths available on request)			
Pipe material	PVC			
Protection	IP68 up to 1.0 MPa			
Signal cable	0WE104K00ZH			
Max. distance to datalogger ⁽⁴⁾	1000 m (for more information see FAQ#77)			

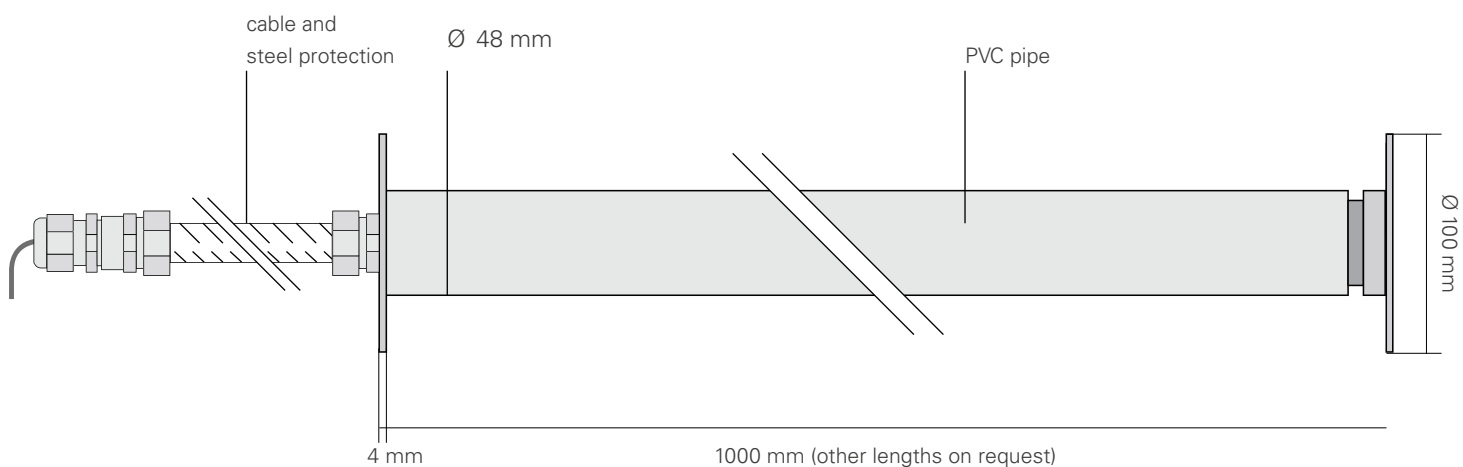
(1) MPE is the Maximum Permitted Error on the measuring range (FSR). In the Calibration Report, the accuracies of the gauge are calculated using both linear regression and polynomial correction (≤ Pol. MPE)

(2) Sensitivity is a specific parameter different for every gauge. The sensitivity is calculated during gauge calibration test and inserted into the calibration report.

(3) The expressed frequency range could have a ±10% variation

(4) refer to FAQ section of Sisgeo website: www.sisgeo.com/assistance/faq.html

PHYSICAL FEATURES



ACCESSORIES AND SPARE PARTS

ARMoured SIGNAL CABLE OWE104X20ZH

4-wires signal cable with galvanized steel wire braid and M1 LSZH external jacket. It guarantees a higher mechanical protection and a maximum applicable load of 1000 N.

MULTIPLEXER BOX 00MNOOMUXB0

Relays multiplexer board with surge arrestors, mounted in IP67 plastic box. It allows local reading with New Leonardo readout or remote connection to OMNIAlog datalogger through RS485 digital bus.

SWITCH MEASURING BOX OEPC0000S00

Switch measuring box to terminate cables at readout point. Available in different sizes to connect up to 24 deformeter meters.

JUNCTION BOX OEPD0000000

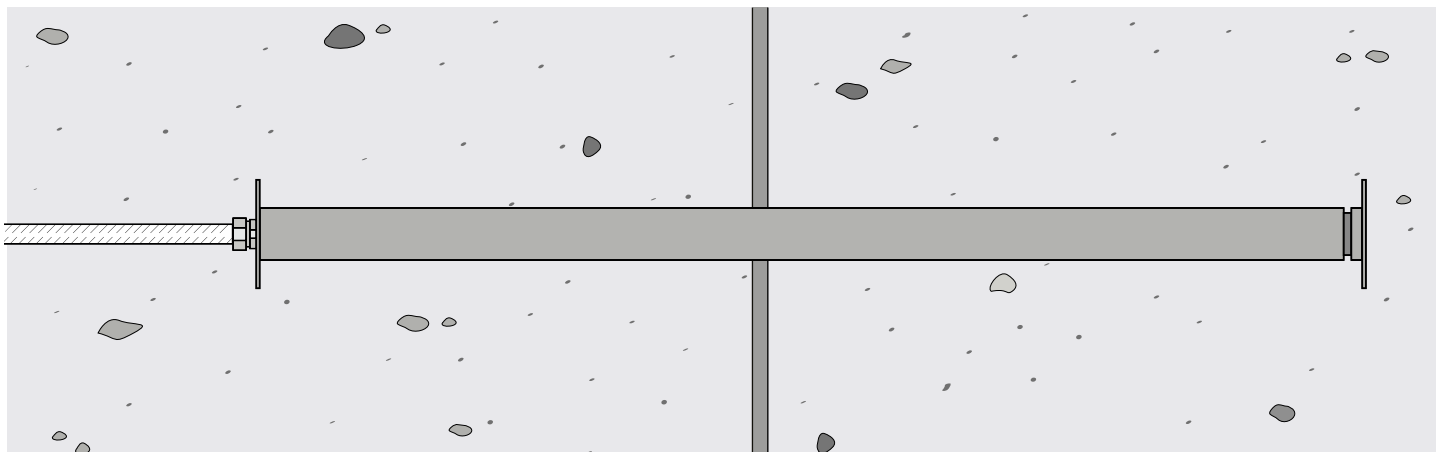
Simple junction box available for jointing from 1 up to 10 instruments. It is supplied with screw terminals for electrical wiring and cable glands.

8 PAIRS SIGNAL CABLE OWE1160LSZH

Multicore cable (16 wires, 24AWG) with external LSZH M1 external jacket for instrument connection on multiplexer box, switch box or OMNIAlog datalogger.

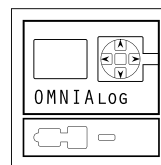
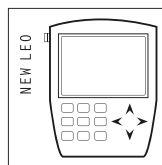
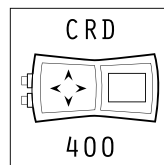
16 PAIRS SIGNAL CABLE OWE1320LSZH

Multicore cable (32 wires, 24AWG) with LSZH M1 external jacket for instrument connection on multiplexer box, switch box or OMNIAlog datalogger.



Deformation meter (LBSG) insalled into RCC dam across an induced joint

READABLE BY



Refer to separate datasheets for further information.

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SISGEO S.R.L.

VIA F. SERPERO 4/F1
20060 MASATE (MI) ITALY
PHONE +39 02 95764130
FAX +39 02 95762011
INFO@SISGEO.COM

TECHNICAL ASSISTANCE

SISGEO offers customers e-mail and phone assistance to ensure proper use of instruments and readout and to maximize performance of the system.

For more information, email us: assistance@sisgeo.com