

EMBEDMENT JOINTMETER

Embedment jointmeters are used to monitor opening and closing of joints in concrete dams and other mass-concrete structures.

The jointmeter is installed in separate pours of adjacent blocks of the structure. A removable anchor is embedded in the first block. Then the jointmeter body is screwed into the anchor and embedded in the adjacent block. Later, when movement occurs at the joint, the plastic body breaks, allowing the transducer inside to make measurements.

APPLICATIONS

- Concrete arch and gravity dams
- Retaining walls, abutments and foundations
- Construction joints in any mass concrete structure

FEATURES

- VW technology provides long term, stable operation
- Built-in thermistor provides temperature data
- Special design for installing through formwork



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



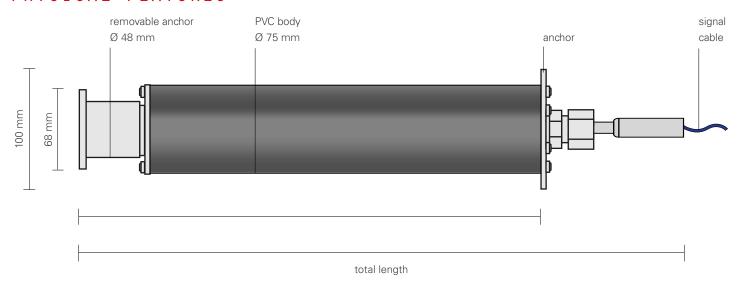


TECHNICAL SPECIFICATIONS

PRODUCT CODES	0D314C025VW	0D314C050VW	0D314C100VW	0D314C150VW
Measurement principle	vibrating wire displacement transducer with built-in thermistor			
Range	25 mm (1")	50 mm (2")	100 mm (4")	150 mm (6")
Accuracy Pol. MPE (1)	< ±0.50% FS	< ±0.30% FS	< ±0.30% FS	< ±0.30% FS
Accomodate shear	±15 mm (±0.6") shear movement at the joint			
Output signal	frequency (VW), resistance (thermistor)			
Sensitivity (2)	see calibration report			
Typical frequency range (3)	2250 - 3000 Hz			
Operating temperature	-20°C +80°C			
Total length	430 mm	440 mm	590 mm	780 mm
Distance between anchors	300 mm	300 mm	400 mm	470 mm
Ancors diameter	removable (unscrewable) anchor 68 mm, body anchor 100 mm			
Material	galvanized steel / PVC			
Protection	IP68 up to 1.0 MPa			
Signal cables	0WE104X020ZH (armoured)			
Max. distance to datalogger (4)	1000 m (for more information see <u>FAQ#77</u>)			

- (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 (\leq Pol. MPE)
- (2) Sensitivity is a specific paramenter 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 $\pm 10\%$ variation
- (4) Refer to FAQ section of Sisgeo website: www.sisgeo.com/faq

PHYSICAL FEATURES

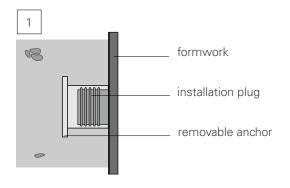


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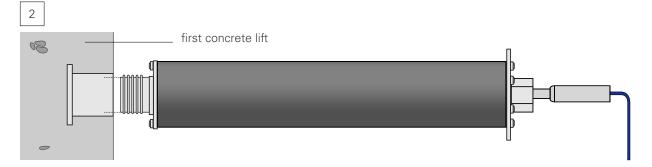


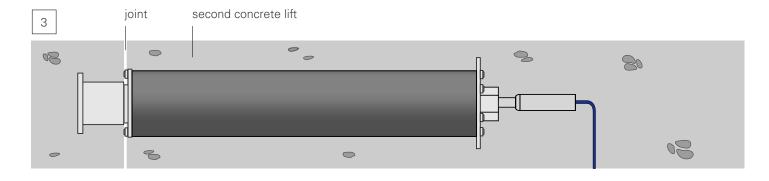


INSTALLATION PROCEDURES



- The removable anchor is embedded in the first pour. A plug keeps concrete out of the anchor.
- After the plug is removed, the transducer body is screwed into the anchor and embedded in the second pour of concrete.
- 3 Now the instruments spans the joint between two blocks of concrete.





READABLE BY







Refer to separate datasheets for further information.

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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