J6 LINEAR POTENTIOMETER CRACKMETER





Description

The Linear Potentiometer Crackmeter is a highly accurate and robust instrument used to measure displacements across cracks and joints of a structure.

The potentiometer is installed across a crack or joint of the structure to be monitored, using either groutable or expanding shell anchors.

As the crack expands or contracts, the change in the distance between the anchors causes the connecting rod within the potentiometer body to move. The movement of the potentiometer changes the output which determines the movement of the crack with high resolution and accuracy.

Features

- High resolution and accuracy
- Robust design
- Suitable for long-term monitoring
- Suitable for manual or remote monitoring
- Two versions available; Standard (IP67) and Submersible (IP68 to 1700 kPa)

Benefits

- Accurate, repeatable readings
- Long working life
- Long term stability and reliability
- Connecting cable is strong, screened and flexible



Comprehensive information about this product and our full range is available at www.soilinstruments.com If you would like to speak with someone directly please call +44 (0)1825 765044 or email sales@soilinstruments.com

PRECISELY MEASURED

Operation

The Linear Potentiometer Crackmeter is anchored to the structure to be monitored with groutable or expansion anchors.

The change in distance between the anchors caused by the crack opening or closing, will cause a connecting rod to move within the potentiometer body, changing the resistance of the potentiometer via a voltage divider.

By reading this change in voltage, the movement of the crack can be determined.

Applications

The Linear Potentiometer Crackmeter measures displacements across cracks and joints in buildings, bridges, dams, pipelines and similar structures. It can measure both expansion and contraction of cracks or joints.

Typical monitoring applications include:

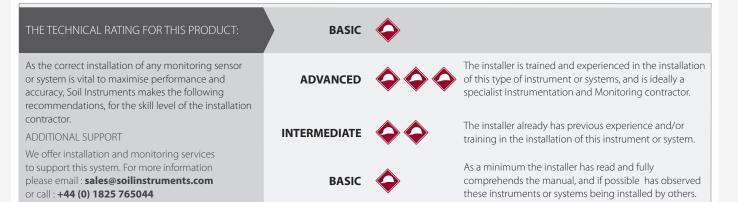
- Brick and stone buildings
- Settlement, heave or foundation clay shrinkage
- Bridges and dams
- Construction joints
- Pipelines
- Joints and bearing/support interaction
- Tunnels and lining cracks
- Structures susceptible to earthquake and landslide areas



For details on:	Catalogue code:
Dataloggers	D1
ARGUS Monitoring Software	D4



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Specifications

l inear	Potent	iometer

Ranges	25mm	50mm	75mm	100mm
Repeatability		< ± 0.	01 mm	
Accuracy		±0.25%	full scale	
Temperature range		-30 to	+150°C	
Standard Version				
Material		Anodised aluminium hou	using / Stainless Steel shaft	
Ingress protection		IF	267	
Weight less cable	26g	29g	33g	37g
Dimensions ¹	L 95mm x Ø 9.5mm	L 120mm x Ø 9.5mm	L 145mm x Ø 9.5mm	L 178mm x Ø 9.5mm
Submersible Version				
Material		Stainle	ess Steel	
Ingress protection		IP68 to	1700 kPa	
Weight less cable	190g	212g	234g	254g
Dimensions ¹	L 290mm x Ø19mm	L 340mm x Ø19mm	L 390mm x Ø19mm	L 450mm x Ø19mm

Cable

Construction	4 Core, PUR sheath, foil screen & drain wire
Diameter	4mm
Weight/m	30g

Anchors

Groutable	Expanding Shell
Zinc pla	ated steel
12mm	16mm
100mm	80mm
176g	180g
	Zinc pla 12mm 100mm

 $^{\scriptscriptstyle 1}$ In the closed position

Ordering Information

Standard Linear Potentiometer Crackmeter

Cable to be ordered separately

cable to be ordered separately		
J6-1-25	25mm range	
J6-1-50	50mm range	
J6-1-75	75mm range	
J6-1-100	100mm range	

Submersible Linear Potentiometer Crackmeter

Cable to be ordered se	parately
J6-1S-25	25mm range
16 15 50	50mm rango

50 15 25	zommunge	
J6-1S-50	50mm range	
J6-1S-75	75mm range	
J6-1S-100	100mm range	

4-20mA Output Version

Cable to be ordered separately

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J6-2-25	25mm range
J6-2-50	50mm range
J6-2-75	75mm range
J6-2-100	100mm range

Mounted Anchors and Fixings	
J2-CF-2.1	Groutable anchor; 2No. required per crackmeter - standard
J2-CF-2.2	Expanding shell anchor; 2No. required per crackmeter - standard
J2-2.1	Groutable anchor; 2No. required per crackmeter - Submersible
J2-2.2	Expanding shell anchor; 2No. required per crackmeter - Submersible

Connecting Cable and Fittings

5	5
CA-3.1-4-IC	Instrument cable, 4 core, 7/0.20, screened, Polyurethane jacket; priced per metre,
CA-4.1	Joint Sealing Kit
CA-4.2	Coloured adhesive tapes; set of 10No.
CA-4.3	Crimping tool
CA-4.4	Crimping sleeves; set of 100No.
W6-6.1	Nylon ties; 150mm x 3.5mm, pack of 100No.
ST1-3.5	Nylon ties; 370mm x 4.7mm, pack of 100No.

Installation Equipment

W6-4.4	Polyester resin cartridge; 150ml, to fix groutable anchor into drill hole
W6-4.5	Cartridge injection tool



