DATASHEET

Linear Potentiometer Crack Meter LPCM-4500

Geosense® LPCM-4500 crack meters are used to measure movement across surface cracks and joints in concrete, rock, soil and structures. They are installed by grouting, bolting, bonding or fixing expandable anchors to the structure to be monitored

GEOSENSE

Linear Potentiometer Crack Meter LPCM-4500

Overview

Geosense® LPCM-4500 crack meters are used to measure movement across surface cracks and joints in concrete, rock, soil and structures.

They consist of a potentiometric displacement transducer housed in an aluminium body with a stainless steel shaft with two anchoring points.

The potentiometer works on the principle of an outer body tube and an inner free-sliding wiper which makes electrical contact along a strip of fixed resistance. A regulated DC voltage is applied to the two ends of the resistance strip and the voltage between one end of the strip and the contact point of wiper and strip is measured as the output signal. On board signal conditioning provides an output signal in 4-20mA.

LPCM-4500 crack meters are installed by grouting, bolting, bonding or fixing expandable anchors to the structure to be monitored. The anchors incorporate ball joints where they are fixed to the gauge which accommodate any differential cross-axis movement and prevent the inner rod from binding within the outer casing.

APPLICATIONS

- Concrete structures
- Stone & brick buildings
- Dams
- Tunnels
- Construction joints
- Pipelines
- Rock formations

FEATURES

- Simple to install and read
- High resolution & accuracy
- Triaxial mounting available
- Data logger compatible
- Ranges from 25 to 200mm
- Waterproof to IP67

CE

Linear Potentiometer Crack Meter LPCM-4500

Specifications

DIMENSIONS

Model	Range (mm)	Length Compressed (mm)	Length Extended (mm)	Diameter (mm)
LPCM-4501	25	173	200	13
LPCM-4502	50	198	250	13
LPCM-4503	75	223	300	13
LPCM-4504	100	248	350	13
LPCM-4505	125	273	400	13
LPCM-4506	150	298	450	13
LPCM-4507	175	323	500	13
LPCM-4508	200	348	550	13

PERFORMANCE

Resolution*	0.01% FS with MP12 readout
Accuracy	< ±0.20% FS
Repeatability	<0.01mm
Nonlinearity	≤0.5% FS

ELECTRICAL

Technology	Conductive plastic
Supply voltage	6-30VDC
Output	4-20mA
Cable	26 AWG x 3 conductor, FDR 25 sleeve

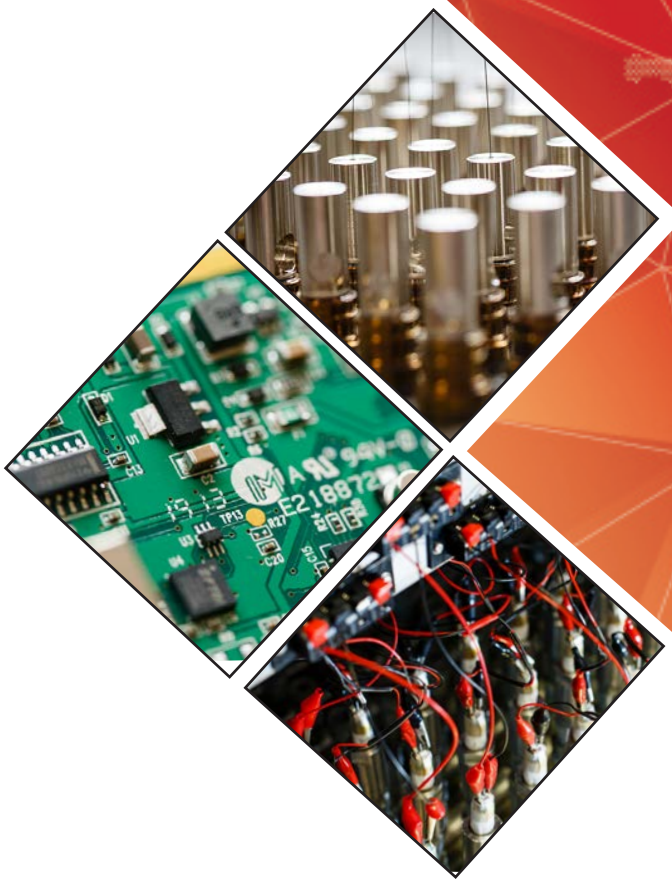
MECHANICAL

Operating temperature	-30 - +125°C
Body material	Anodised aluminium
Shaft material	Stainless steel
Enclosure	IP67

* Readout dependent, may alter with other readout types.

ORDERING INFORMATION

Range
Anchor type
Cable length
Readout type



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