

**HIGH RESOLUTION
INTRINSICALLY SAFE
CRACKS & JOINTS MONITORING**

The FOD is Ideal for long-term structural deformation monitoring or for surface mounting across joints and cracks.

Description

The **FOD** optic linear position and displacement transducer is an absolute position transducer that provides highly precise position and displacement measurements.

The **FOD** is the fiber optic version of the Linear Variable Differential Transformer (LVDT), but unlike it, the **FOD** requires no electrical signal and associated wiring. The **FOD** is completely immune to EMI and RFI and carries no risk of current leakage or ignition.

The **FOD** can be located far away from the signal conditioner. These characteristics make the **FOD** well suited for difficult-to-reach locations and hazardous environments such as those containing explosive materials or prone to lightning strikes.

Our unique design is based on Fabry Perot interferometer principle. By connecting this device to one of our Fabry-Perot fiber optic readout units or dataloggers, it becomes an absolute position and displacement transducer.

Its compact size, immunity to EMI/RFI, resistance to corrosive environments, high accuracy and reliability make it the best choice for linear position and displacement measurements.

Key Features

- High resolution
- Intrinsically safe
- Immune to EMI/RFI
- Rugged waterproof stainless steel housing for outdoor use

Applications

- Crackmeter: Determining crack opening in concrete and masonry structures
- Jointmeter: Measure expansion joint movements
- Measuring fault movements in rock

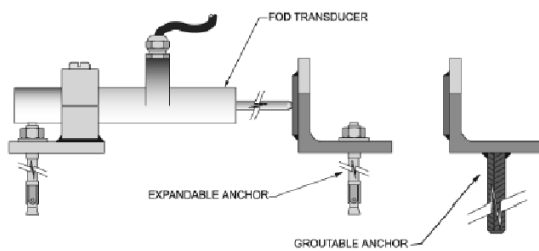
Specifications

Control unit

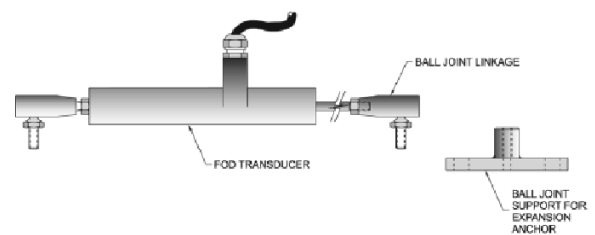
Linear stroke*:	20 mm
Accuracy	0.1% FS
Resolution	0.002 mm
EMI/RMI susceptibility:	Intrinsic immunity
Cable:	CFO-3STD, 3mm diameter
Housing material:	Aluminum or stainless steel
Connector:	ST or SC
Operating temperature:	-40 to +80°C
Dimensions (length × O.D.):	144 mm × 19 mm

*Special version with range of 40, 100, 120 mm available, please contact us for more information

Sensor Configurations



Model FOD-F



Model FOD-J

Ordering Information

Please specify:

- Model
- Fiber Optic Cable length
- Type of anchoring
- Fiber optic readouts instruments

Smartec SA

Via Pobietto 11

CH-6928 Manno, Switzerland

Phone +41 91 610 18 00

Fax. +41 91 610 18 01

Email info@smatec.ch

Web www.smartec.ch

DOC: E50169-160315

Smartec SA reserves the right to make any changes in the specifications without prior notice