EMBEDDED STRAIN GAUGE

Model EFO

APPLICATIONS

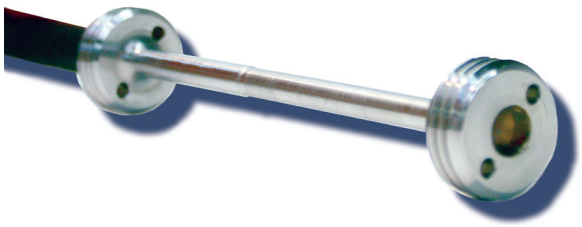
- Dams
- Bridges
- Tunnel linings
- Nuclear power plants
- Buildings
- High performance and reactive powder concrete
- Corrosive environment
- High EMI/RFI environment

DESCRIPTION

The EFO is a 70-mm long fiber optic strain gauge designed to be embedded in concrete. The sensor is based on a unique fiber optic strain gauge which constitutes a breakthrough in fiber optic sensing. It consists of a stainless steel body, with two flanges for better adherence to concrete. The intrinsic Fabry-Perot strain gauge is bonded in a very small diameter longitudinal hole located in the center of the steel body.

The EFO embedded strain gauge can be installed into concrete structures in two different ways: it can be cast directly into the wet mix or encapsulated into a concrete briquette which is then cast into the wet mix. It is also possible to set the gauge into hardened concrete by grouting it or the briquette containing the EFO into a pre-drilled hole. Due to its small dimension, the effect of the EFO inside the concrete is minimum.

The sensor may be used with different types of concretes, including conventional, high performance and powder reactive concretes.

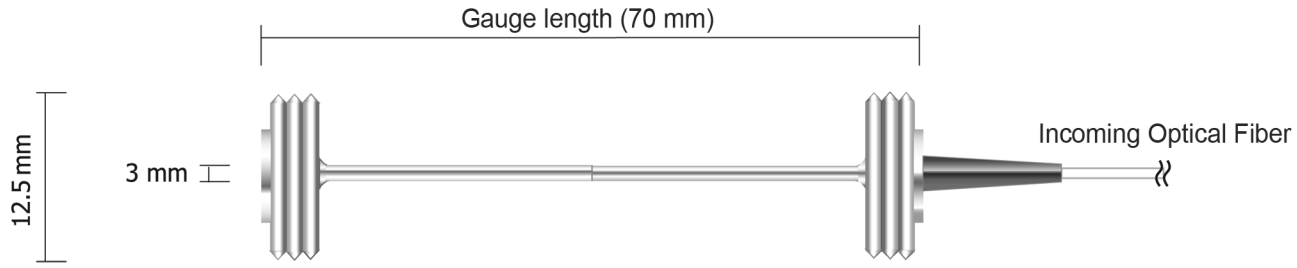


FEATURES

- Immune to EMI/RFI/Lightning
- Static/Dynamic response
- High sensitivity
- Long-term stability
- Signal transmitted over long distances
- No interference due to fiber cable bending

SPECIFICATIONS

Range	±1000, ±1500, ±2000, ±3000 με (other ranges available upon request)
Resolution	0.01% F.S.
Transverse sensitivity	<0.1% F.S.
Operating temperature	–40 to +55°C, operating temperature is fiber optic cable dependent
EMI/RFI susceptibility	Intrinsic immunity
Gauge dimensions	
Diameter	12.5 mm
Length	70 mm
Gauge material	Stainless steel
Fiber optic cable	CFO-3STD, CFO-9RF
Connector	ST



EFO Dimensions

ORDERING INFORMATION

Please specify:

- Range
- Fiber optic cable length (2 m min.)
- Fiber optic readout instruments

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