NEUBREX

NEWS RELEASE

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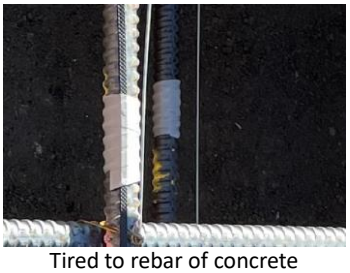
Neubrex Co., Ltd.

New Optical Fiber Sensing Cable for Strain and Temperature Measurements by Single Cable Enabling Easy Installation and High Reliability

Neubrex Co., Ltd. (Kobe, Japan, President Kinzo Kishida) has released “FN-EBSM-01”, which enables both strain and temperature measurements with a single cable, as a new product of embossed cable series. The embossed cable is an optical fiber sensing cable that is designed for optical fiber measurements for infrastructures and can be easily handled on site.

FN-EBSM-01


Tired to rebar of concrete


Embedded in concrete structures

Distributed fiber optic sensing technology has many advantages, such as being able to constantly and comprehensively grasp the status of infrastructures and is being developed and introduced worldwide. However, communication cables which do not have sufficient characteristic to install and reliability for sensing have been diverted for infrastructure monitoring.
As a manufacturer specialized in distributed optic fiber sensing systems, Neubrex Co., Ltd. designs and sells optical fiber sensing cables specifically designed for deployment to infrastructures.
The main features of FN-EBSM-01 are as follows.

1. Supports NEUBRESCOPE’s high-precision measurement

The FN-EBSM-01 is calibrated with state-of-the-art NEUBRESCOPE’s Brillouin and Rayleigh sensing technology. It offers excellent, linear responses to mechanical and/or thermal loads, providing accurate strain or temperature measurements by not only Brillouin scattering measurement (BOTDR, BOTDA method) but also state-of-the-art, high -precision Rayleigh scattering measurement (TW-COTDR method).

2. Strain and Raman-based DTS measurement with a single cable

By incorporating one singlemode and one multimode optical fibers in the center of the cable, it enables both strain and temperature measurements with a single cable by connecting the multimode optical fiber to a DTS (Distributed Temperature Sensor) device.

* The measurement performance of Multimode optical fiber depends on the specs of DTS interrogator used.

3. Easy handling on site

The resin sheath is flexible and easy to bend. Optical fibers can be easily extracted for splicing. In addition, its embossed surface enables strong adhesion to measured object, preventing any slippage.

Applications
Distributed Strain / Displacement measurements, Distributed Temperature measurements by DTS,
Measurement requiring temperature compensation, Embedding in concrete, installation on rebar,
Fixing on the surface on pipes / structures, Installation in borehole,
Monitoring of floor slabs, shoring, piles, etc., Monitoring of the ground, seabed, etc.

Specification
Please see the brochure on the Neubrex website.
(https://www.neubrex.com/pdf/FN-EBSM-01_SM_MM_Emboss_E.pdf)

Sales
The basic sales unit is 2000m in length. Short length is available upon request.
Optical connectors and patch cords can be fused on both ends.

Embossed Sensing Cable Series
The embossed cable for Strain measurements “FN-EBSS-01” with the same structure and two incorporated singlemode optical fibers is now on sale.
For more information, please see the brochure on the Neubrex website.
(https://www.neubrex.com/pdf/FN-EBSS-01_SM_Emboss_E.pdf)

About Us
Neubrex Co., Ltd. is one of the few manufacturers specialized in distributed optic fiber sensing systems in the world, founded in 2002.
We have world-class technology and track record in the field of distributed optical fiber sensing, providing not only highly original products such as a series of “NEUBRESCOPE”; high-precision distributed optical fiber measurement device, “FutureNeuro”; optical fiber sensing cable specifically designed for sensing and “NEUBREGATE”; monitoring system that automates data processing and management specific to distributed optical fiber sensing, but also optical fiber measurement services by our experienced engineers.
In addition to our headquarters in Kobe, Japan, we have group companies in Houston, USA and Baden, Switzerland, and provide products and services to customers who require high-quality measurement in fields such as energy, natural resources, and infrastructure monitoring.

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