



**GOOD STRAIN SENSIBILITY  
ROBUST OUTER SHEATH  
SMALL & FLEXIBLE CABLE**

The DiTeSt HDPE Strain sensor is a unique sensor for the evaluation of distributed strain over several kilometers.

### Description

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The DiTeSt HDPE Strain sensor is a unique sensor for the evaluation of distributed strain over several kilometers. The DiTeSt Medium Temperature Sensing cable is used in a wide range of applications that require distributed strain sensing, such as soil movement and ground monitoring just to name a few

The DiTeSt HDPE Strain sensor is a small flexible mini armored fiber optic strain sensing cable with central metal tube, metallic armoring wires and HDPE outer sheath. The central metallic tube contains 1 optical fiber offering a strain range up to 1 %.

This sensor is particularly suitable for outdoor environment for direct burial applications, both ground and concrete.

Thanks to the special package design, the DiTeSt HDPE Strain sensor offers high tensile strength, crush resistance, longitudinal lateral water tightness, abrasion resistance with an optimized outer sheath to improve strain transfer and excellent rodent protection.

The DiTeSt HDPE strain sensor is fully compatible with the DiTeSt system and all its accessories.

### Key Features

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- DiTeSt compatible
- High tensile strength
- Excellent rodent protection
- Robust outer sheath
- Outer sheath optimized for better strain transfer
- Good strain sensitivity
- Longitudinally and laterally watertight
- Compact and flexible
- Small bending radius
- Halogen free

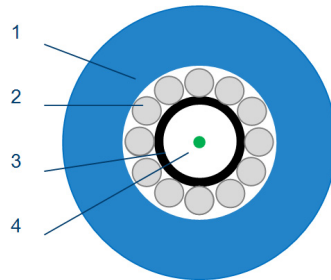
### Applications

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- Civil infrastructure
- Tunnel monitoring
- Distributed pipeline strain monitoring

### Specifications

Operating temperature	-40 °C to +85 °C
Storage temperature	-40 °C to +85 °C
Installation temperature	-10 °C to +50 °C
Outer diameter	3.5 mm
Weight	19 kg/km
Max crush resistance	800 N/cm
Max tensile strength	700 N (installation)
Min bending radius	70 mm (with tensile) 53 mm (without tensile)
Hydrostatic pressure	300 bar
Fiber support	SMF 9 / 125 $\mu$ m ITU-T G.657
Fiber attenuation (cabled @ 20 °C)	$\leq$ 0.4 dB @ 1550 nm
Number of fiber	1
Certification & Compliance	Cable tests complying with IEC 60794-1-2



- 1 - HDPE outer sheath with interlocking system
- 2 - Special grade SS 316L armoring
- 3 - SS 316L metal tube for protection and hermetic seal
- 4 - Special strain optical SMF

### Ordering information

- Cable termination with connectors
- Junction box
- Splice box