

## BRUsens Strain Sensing Cables

### BRUsens DSS 3.2mm V4 metallic

**3\_50\_2\_003**

Fiber optic strain sensing cable, mini, flexibel, armored with central metal tube, PA outer sheath, one optical fiber, strain range up to 1% (10000  $\mu$ strain).

#### Description

- Compact design, good flexibility, small bending radius
- Metal tube, central, extra small, with one strain locked optical fiber, hermetically sealed
- High strain sensitivity
- Outer sheath, robust, abrasion resistant, halogen free, optimized strain transfer
- High chemical resistance
- Good rodent protection
- Laterally watertight
- Good tensile strength and crush resistance

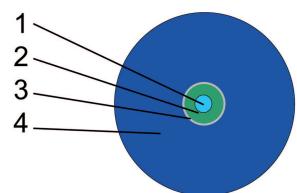
#### Application

- Strain
- Soil movement
- Pipeline monitoring
- Structural monitoring
- Precision measurement and alarm systems
- Brillouin, FBG
- Outdoors, harsh environment, subsea
- Direct burial in soil, concrete, composite structures

#### Remarks

- Standard fiber color code: 1 red, 2 green, 3 yellow, 4 blue, 5 white, 6 violet, 7 orange, 8 black
- For improved UV resistance, black cable sheath available upon request
- Deployment training upon request
- Standard cable marking with meter marks, special labeling of outer sheath upon request
- Other cable designs and temperature ranges upon request
- Accessories such as mounting brackets, loops, fan-outs, splice enclosures, connectors, patch-panels, repair- and field-termination-kits etc. are available
- Accessories such as anchors, mounting brackets, loops, fan-outs, splice enclosures, connectors, patch-panels, repair kits etc. are available
- Final test reports OTDR, BOTDA measurement available upon request

#### LLK-BSST V4 3.2 mm



#### Technical data

Type	Max. no. of fibres units	Cable ø mm	Weight kg/km	Installation Max. tensile strength N	Typical Load at 1 % elongation N
1F	1	3.2	10.5	260	470

Type	with tensile load Min. bending radius mm	without tensile load Min. bending radius mm	Max. crush resistance N/cm
1F	64 (20xD)	48 (15xD)	250

#### Optical fiber data (cabled) at 20°C

Fiber Type	Attenuation dB/km 1550 nm	Temperature sensitivity $d\phi_B/dT$ Typical Brillouin parameters BOTDR or BOTDA at 1550 nm MHz/°C	Strain sensitivity $d\phi_B/d\varepsilon$ Typical Brillouin parameters BOTDR or BOTDA at 1550 nm MHz/%	Centr. Brillouin Freq. Typical Brillouin parameters BOTDR or BOTDA at 1550 nm GHz
SMF	≤0.5	2.0	450	10.8