

# BRUsens DSS 2.8mm V1 non-metallic

3\_50\_2\_004

Fiber optic strain sensing cable, extra small, lightweight, sensitive, non metallic, one optical up buffered fiber, protection and strain transfer layer, EPR outer sheath, strain range up to 1% (10000  $\mu$ strain).

**Description**

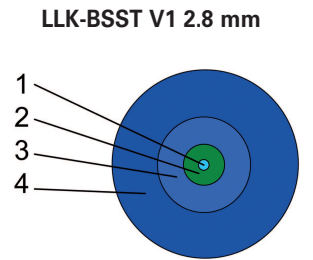
- Compact design, good flexibility, small bending radius
- All dielectric design
- Optical fiber, 1x tight buffered optical fiber
- Outer sheath halogen free
- Good chemical resistance
- Laterally watertight
- High strain sensitivity

**Application**

- Strain
- Soil movement
- Pipeline monitoring
- Stuctural monitoring
- Precision measurement and alarm systems
- Brillouin, FBG
- Outdoors, harsh environment
- Direct burial in sand layers

**Remarks**

- 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



**Technical data**

Type	Max. no. of fibres units	Cable $\phi$ mm	Weight kg/km	Installation Max. tensile strength N	Typical Load at 1 % elongation N
1F	1	2.8	5.9	5	26

Type	with tensile load Min. bending radius mm	without tensile load Min. bending radius mm	Max. crush resistance N/cm
1F	20xD	15xD	150

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

Fiber Type	Attenuation dB/km 1550 nm	Temperature sensitivity $df_B/dT$ Typical Brillouin parameters BOTDR or BOTDA at 1550 nm MHz/°C	Strain sensitivity $df_B/d\epsilon$ Typical Brillouin parameters BOTDR or BOTDA at 1550 nm MHz/%	Centr. Brillouin Freq. Typical Brillouin parameters BOTDR or BOTDA at 1550 nm GHz
SMF	$\leq 0.5$	4.2	450	10.8