BRUsens DSS 7.2mm V3 grip

Fiber optic strain sensing cable, extra robust, with central metal tube, metallic armor wire, and structured PA outer sheath, one optical fiber, strain range up to 1% (10000 µstrain).

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

Application
- Strain
- Soil movement
- Pipeline monitoring
- Structural monitoring
- Brillouin, FBG
- Outdoors, harsh environment, subsea
- Direct burial in soil, concrete

Technical data

<table>
<thead>
<tr>
<th>Type</th>
<th>Max. no. of fibres</th>
<th>Cable Ø</th>
<th>Weight</th>
<th>Max. tensile strength</th>
<th>Typical Load at 1 % elongation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1F</td>
<td>1</td>
<td>7.2</td>
<td>75</td>
<td>600</td>
<td>1600</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>with tensile load</th>
<th>without tensile load</th>
<th>Max. crush resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1F</td>
<td>144 (20xD)</td>
<td>108 (15xD)</td>
<td>500</td>
</tr>
</tbody>
</table>

Optical fiber data (cabled) at 20°C

<table>
<thead>
<tr>
<th>Fiber Type</th>
<th>Attenuation</th>
<th>Temperature sensitivity dfB/dT Typical Brillouin parameters BOTDR or BOTDA at 1550 nm MHz/C</th>
<th>Strain sensitivity dfB/dx Typical Brillouin parameters BOTDR or BOTDA at 1550 nm MHz/%</th>
<th>Centr. Brillouin Freq. Typical Brillouin parameters BOTDR or BOTDA at 1550 nm GHz</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMF</td>
<td>≤0.5</td>
<td>2.0</td>
<td>450</td>
<td>10.8</td>
</tr>
</tbody>
</table>

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 kits etc. are available
- Final test reports OTDR, BOTDA measurement available upon request

Application
- Strain
- Soil movement
- Pipeline monitoring
- Structural monitoring
- Brillouin, FBG
- Outdoors, harsh environment, subsea
- Direct burial in soil, concrete

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 kits etc. are available
- Final test reports OTDR, BOTDA measurement available upon request