



## Sentire T180

**Sentire** products are designed to be reliable and maintenance free. They are functioning for a wide range of applications and be customizable in special installation cases. The standardized temperature-sensors in this product family have a lose tube steel core, which enables best measurement accuracy over the complete temperature range and keep's its fiber-performance. The used fibers are compatible to the measuring methods Raman, Brillouin and FBGs.

### Key features

- ✓ Operating temperature up to 180°C
- ✓ Polymer coating
- ✓ Robust and flexible
- ✓ Rodent protection

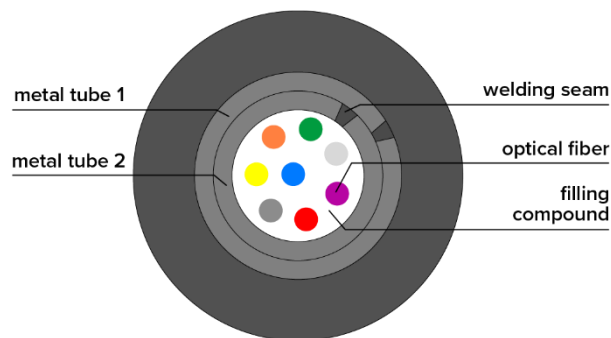
### Applications

- ✓ Telecommunication industry with sensing
- ✓ Infrastructure
- ✓ Direct burial in soil, constructions or in conduits

### Standard products

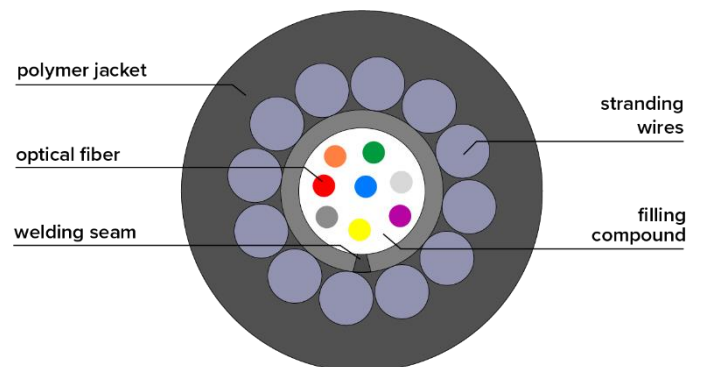
#### Sentire T180 Double Layer

- Lightweight
- Higher crush resistance
- Higher hydrostatic pressure rating
- Longitudinal watertightness
- Good chemical resistance



#### Sentire T180 Armoured

- Higher tensile strength rating
- Robust design for harsh environment
- More installation flexibility
- Longitudinal watertightness
- Good chemical resistance





# Sentire T180

## Product specification\*

	<b>Sentire T180 Double Layer</b>	<b>Sentire T180 Armoured</b>
Outer diameter	3.5 mm (+/- 0.3 mm)	4 mm (+/- 0.3 mm)
Covering layer	FEP (Fluorethylenpropylen)	FEP (Fluorethylenpropylen)
Total weight (calculated, gel and 8 fibers)	26.5 kg/km	48.2 kg/km
Number of fibers	up to 8 fibers	up to 8 fibers
Type of fiber	Special acrylate-based coating (SM&MM)	Special acrylate-based coating (SM&MM)
Operating temperature	-60 °C to 180 °C	-60 °C to 180 °C
Ultimate tensile strength (calc.)	1820 N	2600 N
Max. operational tensile force (calc.)	910 N	1300 N
Max. installation tensile force (calc.)	450 N	650 N
Crush resistance @10% deformation (calc.)	9250 N/100mm	6150 N/100mm
Max. hydrostatic pressure (calc.)	3440 bar	1910 bar
Min. bending radius (static)	90 mm	60 mm
Attenuation @850nm (MM)	2.5 dB/km	2.5 dB/km
Attenuation @1300nm (MM)	0.7 dB/km	0.7 dB/km
Attenuation @1310nm (SM)	0.38 dB/km	0.38 dB/km
Attenuation @1550nm (SM)	0.24 dB/km	0.24 dB/km

\*The specified values apply to laboratory conditions (+23°C, 1.013 bar).

## Standard version

- ✓ Color code: 1-red, 2-green, 3-blue, 4-yellow, 5-natural, 6-grey, 7-brown, 8-violet
- ✓ Sensor cable marking every meter
- ✓ Sensor cable length up to multiple kilometers
- ✓ Delivered on NBG standard wooden spool

## Available upon request

- ✓ Improved mechanical performance
- ✓ Customized marking
- ✓ Optical fiber characteristics and opportunities
- ✓ Connector material and sensor assembly service

All values, product specifications and other given data are subject to change without notice to improve reliability, function, design or otherwise. Information contained in this data sheet are up-to-date as at the date of issue. As NBG cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. To the maximum extent permitted by law, NBG will not be responsible for damages of any nature resulting from the use or reliance upon the information contained in this data sheet.