



SC-SWLT4-PEX

FibroLaser™

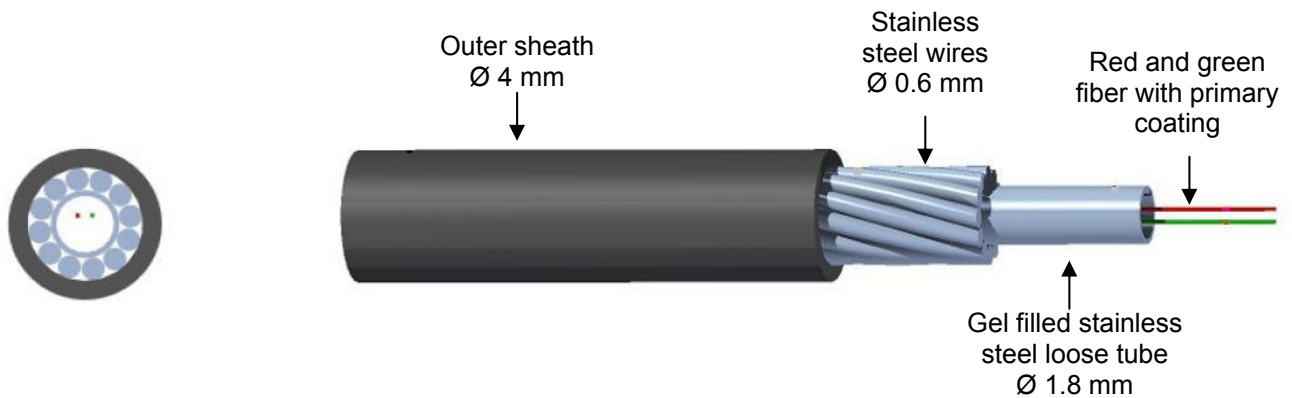
FibroLaser Sensor Cable Ex

- Detects hot gases and radiant heat using linear temperature measurement
- Usable in EX-Zone 0 (gas) and 20 (dust) - (EX-Cable)
- Consistent sensitivity throughout the entire sensor cable length
- Redundancy due to double optical fibers – for safety on the highest level
- No electronic parts – immune to electromagnetic interferences
- Easy installation
- No maintenance required

Sensor cable setup

The sensor cable consists of a stainless steel tube. 12 stranded stainless steel wires are wound around the tube. The outer sheath is Polyethylene. The two sensor fibers are multimode, graded index, gradient 62.5/125 μm waveguide of international standard dimensions and characteristics.

Cross-section through a sensor cable



Application-dependent advantages

Coal Storages:

- Early heat detection in EX-Zones
- No operational interruptions for maintenance purposes

Corn or Grain silos:

- Early fire detection in EX-Zones with high concentration of dust
- No operational interruptions for maintenance purposes

Oil tanks:

- Heat detection in every Room or Tank with critical gas concentration (EX-Zone)

Conveyor belts:

- Early fire detection even in changing climatic conditions

Optical fiber characteristics

fiber type	graded index 62.5 / 125 µm
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The sensor cable complies with the manufacturer's guidelines of system calibration for the undisturbed operation as fire detection system.

Mechanical characteristics

Cable diameter	4.0 mm
Outer sheath color	black
Outer sheath material	electro conductive Polyethylene (PE)
Number of fibers	2
Cable weight	41.5 kg / 1000 m
Max. tensile strength long- / short term	1100 N / 2000 N
Min. bending radius without- / with tensile loading	40 mm / 80 mm
Impact resistance (number impacts with 1Nm)	201
Max. crush resistance	10 kN / dm (10 min)
Max. distance between fixations / recommended	4 m / 1 m

Temperature range

Storage- / installation temperature	-25°C ... +85°C / -5°C ... +50°C
Operating temperature	-25°C ... +85°C
Short term temperature	-50°C ... +150°C

Additional characteristics

Fire load	0.31 MJ/m
Fire performance	cable is halogen free, non- corrosive and no toxic fumes
Chemical	good resistance to oil, petrol, acid and leach

Standards

Cable	EN 18700, ICE 60794
Fiber	ICE 60793

Ordering information

Name	Lios part no.
SC-SWLT4-PEX	18030515

Siemens Switzerland Ltd
Infrastructure & Cities Sector
Building Technologies Division
International Headquarters
CPS Fire Safety
Gubelstrasse 22
CH-6301 Zug
Tel. +41 41 724 24 24
www.siemens.com/buildingtechnologies

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Manual FibroLaser
Section 4