

# Fiber Optic Technology

## Applications

- High temperatures at the sight port
- Strong vibration at the sight port
- Limited space at the sight port



Our Fiber Optic System is used to collect the flame radiation and to transmit the same to the opto-electronic converter (OE-Converter). The system consists of a robust lens probe "SKL" and a fiber optic cable "FOC".

Inside the OE-Converter a flame scanner or Compact Flame Controller converts the optical flame radiation into electrical signals.

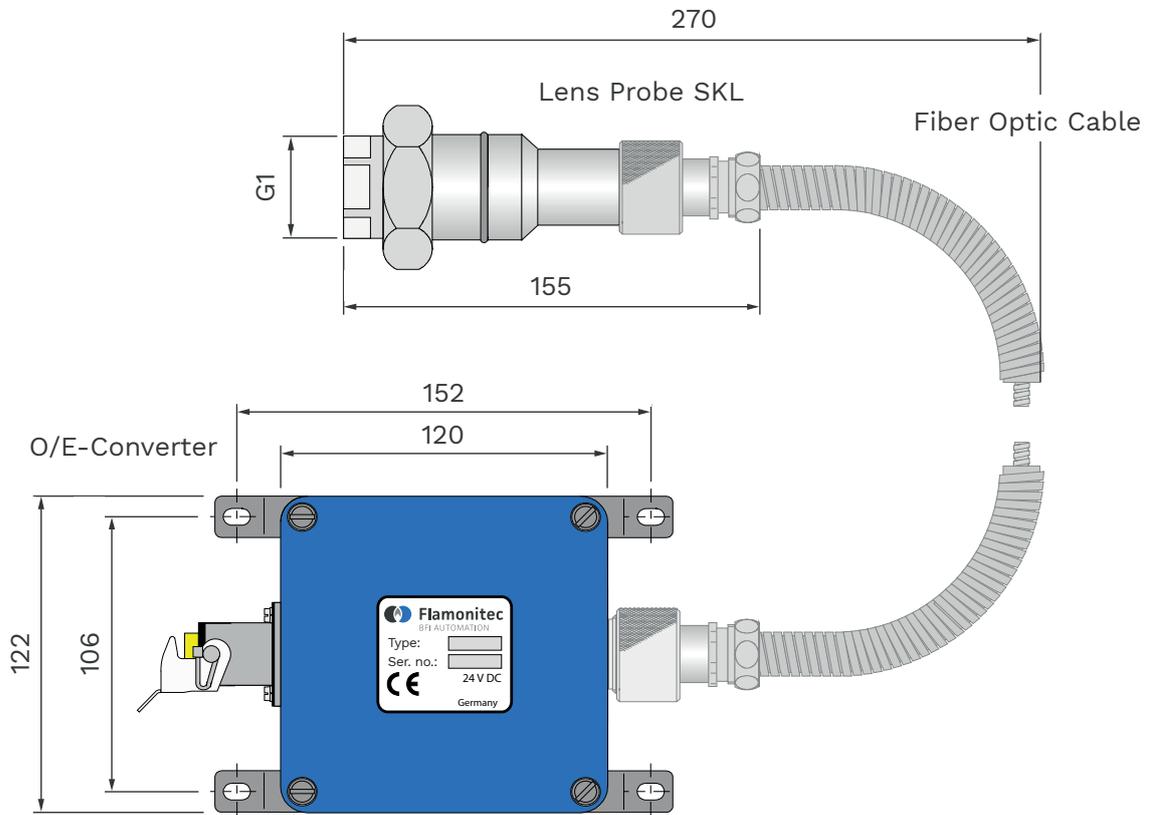
Due to the high temperature resistance and insensitivity to vibrations, the system is ideal for applications where the mounting or cooling of electronic sensors is difficult or not possible.

The probe is equipped with optics, that collect light with a viewing angle of  $2.7^\circ$  and project it onto the fiber optic bundle. The fiber optic cable with probe is temperature resistant up to  $+350^\circ\text{C}$ . The glass fibers are in a flexible, sturdy cable with steel braid and integrated silicone jacket. The fiber optic cable is water and dustproof, acid and temperature resistant.

The scope of delivery includes a flat-sealing IA screw connection, that prevents the probe from twisting when putting on or taking off the sight port.

When it comes to fiber optics, glass fibers for all spectral sensitivity ranges of our flame scanners and Compact Flame Controllers are available. The lengths of the optical fibers depend on the local conditions and are determined specifically for the application.

# 1 | Design



# 2 | Technical data

Spectral transmission	
UV	190 nm to 1200 nm
IR	300 nm to 2450 nm
Standard cable length	2 m, 3 m, 5 m, 7 m, 10 m
Optional cable lengths	0,5 m to 20 m according to specification
Ambient temperature	-60 °C to +350 °C
∅ Bundle with Agraf-Hose	approx. 17 mm
Material	Stainless steel
Bending radius min	> 125 mm
Sight port connection	ISO 228 G1
Type of protection	Lens probe IP68, O/E-Converter IP65

Technical changes reserved.