



**Electro Optical Components, Inc.**

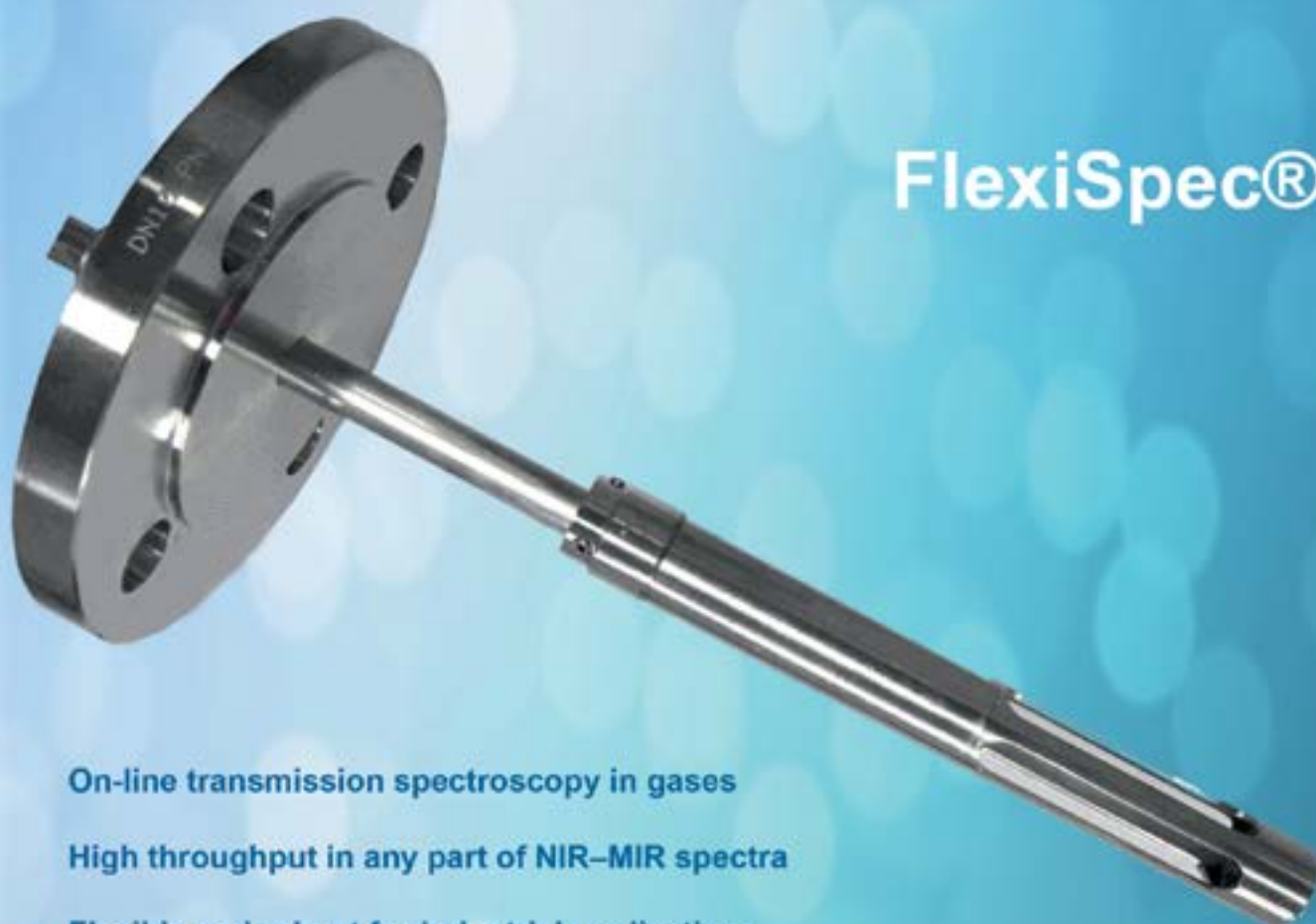
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## Gas Transmission Infrared Fiber Optic Probe for Gases



**FlexiSpec®**

**On-line transmission spectroscopy in gases**

**High throughput in any part of NIR–MIR spectra**

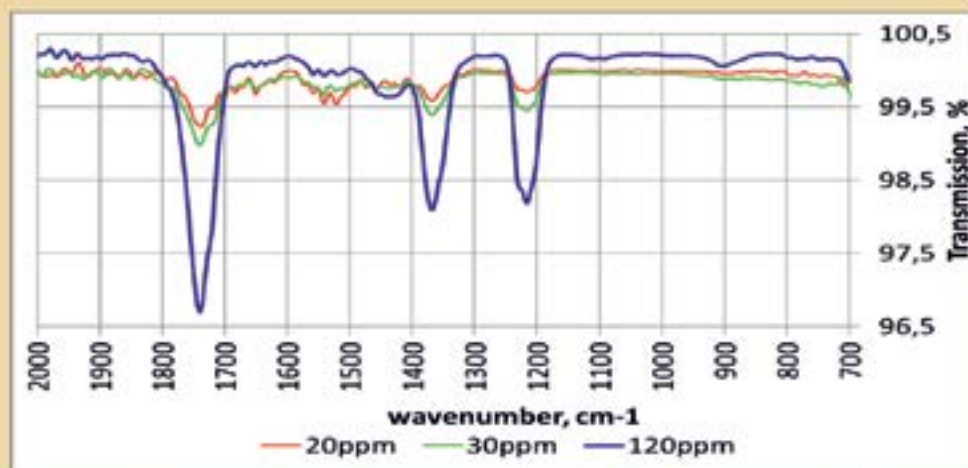
**Flexible and robust for industrial applications**

**Compatible with any spectrometer.**

**FlexiSpec®** product line includes the latest generation of Transmission infrared fiber optic probes for gases to be used with any spectrometer or photometer. The design of Transmission Fiber Probe for gases is based on a bifurcated fiber bundle. Due to low Mid IR-attenuation in gases the collimated beam design of double pass (or multiple pass) gas cell is needed to increase optical path length to 10 – 40cm. This design is easily realized by the mean of the collimating objective and reflecting mirror cell.

### **Applications:**

- Reaction investigation and monitoring in real time
- Analytical Characterization
- Exhaust gases monitoring
- Solvent vaporization monitoring
- Associated petroleum gas monitoring



Acetone vapor spectra in 100mm double-pass cell

### Specification of Gas Transmission Fiber Optic Probes FlexiSpec®

Probe type	Transmission in double-pass gas cell		
Transmission range	0,5 - 2,2 $\mu\text{m}$	1,6 – 5,5 $\mu\text{m}$	3 – 18 $\mu\text{m}$
Fiber type	Silica	Chalcogenide IR	Polycrystalline IR
Temperature range	-50°C + 200°C	-50°C + 90°C	-50°C + 140°C
Sensitivity	>1ppm depending on optical path, spectrometer performance, gases in test		

### Common Parameters of Gas Transmission Fiber Optic Probes FlexiSpec®

Total Length	1,5 m (opt: 1 – 30m) *
Transmission Cell Length	100mm (opt: 5 – 200mm) *
Transmission cell Diameter	25mm
Shaft Material	Stainless Steel, Hastelloy C22
Protective Tube Material	Liquid Tight SS-Conduit, KOPEX-Tube
Input / Output Connectors	Long SMA *



\*Customized dimensions are available on request

