



## TM50/TFM50 Smart Process Line



### Example applications

- Process control with NIR, UV/VIS and fluorescence spectroscopy in highly corrosive media
- Reaction tracking in highly aggressive chemical processes from UV to NIR



### Benefits

- Easy process connection via standard flanges
- Optical layer thickness freely selectable and adjustable by the customer
- Fibre optics can be changed during the ongoing process
- Little reduction in cross section thanks to slim probes
- Very high energy throughput for a good signal-to-noise ratio
- Suitable for all common fibre optic coupled spectrometers and photometers
- Wavelength ranges: UV/VIS/NIR



### Technical Specifications Standard Immersion Probe

Measuring Principle	Transmittance
Material Process Window	Sapphire
Material Flowcell	1.4571 (not in contact with product) Emaile, PTFE or PFA (in contact with product)
Process Connection	DIN or ANSI Flange
Sealing Material	Kalrez® 6375 and Isolast® 8325/9503
Temperature Range	-5°C to 70°C (pertinent to Sealing Material)
Pressure Range	up to 40 bar / 600lb/sq.in. (pertinent to Flange)
Optical Path Length	freely selectable up to 10 mm / 0,39 Zoll
Collimation Optics	Stainless Steel 1.4571 with Lens Suprasil® 300
Optical Fiber	0,5 m / 19,7 Zoll Stainless Steel Coat 600/660 µm Quarzfiber with SMA Connection and Stainless Steel Sleeve 130 mm / 5,12 Zoll
Compliance	Pressure Equipment Directive 2014/68/EU

Other flange types or sealing materials can also be used according to customer requirements. For UV applications or on request, the probe can be manufactured with process windows made of quartz and collimation optics made of Suprasil® 1.