

KATANA XP

Optical Immersion Probe for Attenuated Total Reflection Measurements

Spectroscopic probe especially for the analysis of strongly absorbing or highly concentrated media

The Hellma **Katana XP** probe is ideal for attenuated total reflection (ATR) measurements in laboratory and process applications. It is characterized by the use of a conical ATR crystal at the probe tip. This probe model is particularly suitable for measuring highly absorbent media such as dyes, pastes or slurries in different spectral ranges.

Possible areas of application for this probe include:

- Reaction monitoring or endpoint determination for chemical synthesis
- Control of process chromatography
- Determination of the color number
- Quality control of dyes

ROBUST AND HYGIENIC DESIGN

Due to the special design, the probe does not have any cavities where deposits could form. The risk of contamination is minimized and the probe is also easy to clean.



SMALL DIAMETER

The small probe diameter enables simple and space-saving integration into the process.

SOLDERED VARIANT AVAILABLE

This probe model has the option of soldering the sapphire windows to a titanium probe tube. This soldered version has a high temperature resistance of up to 300 °C.

BENEFITS

- Robust construction for maximum reliability
- Small pathlength
- Easy connection to all common spectrometers
- Good chemical resistance
- Small diameter

STANDARD PRODUCT CONFIGURATION

Model	Katana XP 6
Measurement Principle	ATR
Outer Diameter	brazed: 6 mm, sealed: 6,35 mm / 1/4 inch
Optical Path Length / Focus	Contact
Optical Material	Sapphire
Probe Material	Stainless Steel 1.4435/1.4404 (316L)
Sealing Technology	Kalrez 6375
Spectral Range	UV/Vis, for UV/Vis: 280 nm - 1100 nm; NIR: 400 nm - 2300 nm
Optical Connection	2 m glass fiber PE coated, 2x F-SMA and PMA housing
Fiber-Optic Technology	Standard Fiber Optic
Process Connection	Without Flange
Maximum Pressure	16 bar (Class 150, overpressure at RT, 11 bar at 200 °C, 10 bar at 300 °C, 6,5 bar at 400 °C)
Maximum Immersion Depth	240 mm
Additional Functions	None
Temperature Restrictions	Tmax: optical connector 150 °C without ext. fiber), copex PMA 130°C (85 °C for ATEX)
Temperature	5 °C to 180 °C
Pressure	-1 bar to 16 bar
Scope of Delivery	Optical immersion probe, user manual, customer technical drawing, certificate of pressure test, report of optical transmission test, transport packaging

For more configurations, please refer to our online [configurator](#)