

Process Raman analysis

MarqMatrix Proximal BallProbe Sampling Optic HV

A powerful probe for in-motion sampling

Superior signal for fast data acquisition

The Thermo Scientific™ MarqMatrix™ Proximal Probe Sampling Optic HV (High-Volume) is our affordable, non-contact solution for demanding biopharma, pharma, food & beverage, and hazardous chemical applications that require the testing of very heterogeneous samples or large numbers of moving samples.

The MarqMatrix Proximal Probe Sampling Optic HV's long working distance (47mm or 100mm) can rapidly analyze in-motion samples on conveyor belts or rotating drums. The probe is also effective for use through barriers such as windows, vials, and bags. Analysis is done without ever coming into contact with the sample.

There is no need to sacrifice range to achieve large volume Raman sampling: when coupled to a Thermo Scientific™ MarqMatrix™ All-In-One Process Raman Analyzer, the MarqMatrix Proximal Probe Sampling Optic HV offers a full spectral range of 100-3250cm⁻¹. Accurate and reproducible analysis results in better real-time decision-making and improved process control.

Increase your sampling area

A large beam spot (3.5mm) increases the sampling area, resulting in an averaging effect when used on heterogeneous and moving samples. In addition to a large spot size, this probe has a large depth of field, that provides effective measurement of samples of variable size and/or surface thickness.

The simplicity of use allows non-specialists to collect high-quality data



Features and benefits

- Non-contact analysis of:
 - Samples in motion
 - Samples with variable surface relief
 - Samples with uneven packaging (e.g. pellets)
- 47mm or 100mm working distance for measurement through windows, vials, and bags
- Large sampling area (3.5mm)

Applications

- Biopharmaceutical manufacturing
- Pharmaceutical manufacturing
- Polymer and plastics processing
- Food and beverage processing
- Hazardous chemical applications



The probe is quick and easy to swap when used with the MarqMetrix Interchangeable Fiber Head.

When combined with the MarqMetrix All-In-One Process Raman Analyzer, the MarqMetrix Proximal Probe Sampling Optic HV offers higher performance and full spectral range with accurate, precise and reproducible results.

Specifications	
Standard probe length	3.0in. (76.2mm)
Sample working distance	47mm (4.7cm) or 100mm (10cm)
Continuous operating temperature range	-20 to 100°C
Beam spot size	3.5mm
Compatible wavelengths	500-1100nm

Materials of construction	
Probe dimensions	0.56in. (14.2mm) OD Stainless Steel
Optics	12.5mm diameter optical glass
Sealing materials	High temperature composite adhesive

Operating conditions	
MarqMetrix Proximal BallProbe Sampling Optic HV is intended for use in non-contact sampling, but will withstand intermittent immersion in mild chemical solutions	

Optical properties	
3.5 mm large beam diameter focus; 47mm or 100mm working distance	
Inquire for custom working distance MarqMetrix Proximal Probe Sampling Optic end optics	

Related products	
MarqMetrix Proximal Probe Sampling Optic (8mm) - designed for non-contact sampling	
Thermo Scientific™ MarqMetrix™ Performance BallProbe™ Sampling Optic - designed to withstand moderate chemical environments in laboratory and industrial settings	



High performance optic allows analysis through packaging

Learn more at thermofisher.com/marqmetrixAIO

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