

Process Raman analysis

MarqMetrix Performance BallProbe Sampling Optic

Utilizing TouchRaman Immersion Technology

Reduced sampling variation & ease of use

The Thermo Scientific™ MarqMetrix™ Performance BallProbe™ Sampling Optic is our patented TouchRaman™ Immersion Technology contact probe designed to withstand moderate chemical environments in laboratory and industrial settings.

By utilizing our largest spherical sapphire ball lens interface, the MarqMetrix Performance BallProbe Sampling Optic enables users to simply touch the probe to the sample to acquire highly reproducible samplings of liquids, solids, slurries, powders and heterogenous mixtures.

Chemical compatibility & resistance

The MarqMetrix Performance BallProbe Sampling Optic's 316L stainless steel construction provides a wide range of chemical compatibility and resistance to high-temperatures.

The high-grade sapphire lens has industry-leading low impurity levels, minimizing interferences across a wide range of frequencies. The internal focusing lens improves performance and acts as additional protection against upstream chemical ingress.

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

Features and benefits

- Accurate and repeatable measurements
- Samples liquids, solids, slurries, powders and heterogenous mixtures
- Wide range of chemical compatibility and resistance to high-temperatures
- Minimal interference across a wide range of frequencies
- Ease of use eliminates user-to-user variation

Applications

- Biopharmaceutical manufacturing
- Pharmaceutical manufacturing
- Food and beverage processing
- Oil and gas processing
- Chemical and hazardous applications



The MarqMetrix Performance BallProbe Sampling Optic offers the same high optical performance of our MarqMetrix Process BallProbe Sampling Optic line, with economically friendly materials. The utility of the MarqMetrix Performance BallProbe Sampling Optic is optimized when paired with our filtered fiber-optic interface, creating the Thermo Scientific™ MarqMetrix™ Fiber BallProbe™ Sampling Optic — a complete sampling solution for accurate and repeatable Raman measurements.

However, any BallProbe can be purchased as a standalone product for use with existing probes or open-optic configurations.

Wetted materials

Probe body	0.5 in. 12.7mm OD 316L Stainless Steel
Immersion optics	8.00mm diameter UV-grade sapphire ball
Sealing materials	High-temperature epoxy

Optical properties

Accepts a collimated laser beam up to 7.1mm (0.275 in.) diameter
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Operating conditions

Suitable for intermittent exposure to most dilute and concentrated acids (hot & cold), bases and most organic solvents including ethanol, THF, ethyl acetate, acetone, DCM, toluene, pentane and acetonitrile

Avoid exposure to aqua regia, heated formic acid, mixed acid, TFAA

Related products

Thermo Scientific™ MarqMetrix™ All-In-One Process Raman Analyzer

Specifications

Standard probe length	8.5 in. (216mm)
Probe OD (Outside Diameter)	0.500 in. (12.7mm)
Sample working distance	TouchRaman (Sample contacts BallProbe lens)
Continuous operating temperature range	-20°C to 150°C
Pressured design condition	6,000psi (413 bar)
Compatible wavelengths	500-1100nm



Learn more at thermofisher.com/MarqMetrixAIO

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