



MarqMetrix 0.5 in. High-Throughput Probe Sampling Optic

0.5 in. diameter for demanding process applications, with 50% more signal

Higher signal for challenging samples

The Thermo Scientific™ MarqMetrix™ 0.5 in. High-Throughput (HTP) BallProbe™ Sampling Optic is our highest performing, most robust TouchRaman™ immersion contact probe for process applications. This 0.5 in. (12.7mm) diameter Hastelloy C-276 probe features a gold-compression seal with a pressure design condition of 6,000psi, allowing the probe to be used in extremely challenging chemical, pressure, and temperature conditions.

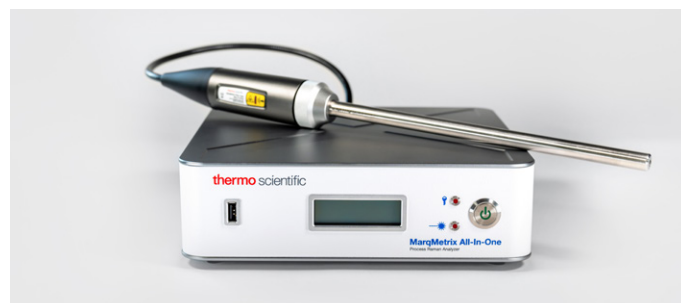
Compared to the standard MarqMetrix 0.5 in. Process BallProbe Sampling Optic, HTP BallProbe's lens offers 50% more signal, making it the perfect sampling optic for signal-limiting chemistry and low signal samples.

Simply touch & measure

MarqMetrix BallProbe technology utilizes an exclusively sourced, high-grade spherical sapphire lens. The short focal length of the spherical optic allows for TouchRaman—where users simply touch the probe to the sample—yielding highly reproducible sampling of liquids, solids, slurries, powders and heterogeneous mixtures.

The simplicity of design is especially important in process applications where measurement accuracy and reproducibility are mission critical.

Users simply touch the probe to the sample — yielding highly reproducible sampling



Features & benefits

- Immersion contact probe for touch measurements
- Measures liquids, solids, slurries, powders, and heterogeneous mixtures
- Simple design for measurement accuracy and reproducibility
- Designed to withstand challenging chemical, pressure, and temperature conditions
- Larger lens diameter is ideal for low-signal samples, offering 50% more signal and lower acquisition times compared to the standard MarqMetrix Process BallProbe

Applications

- Energy applications
- Hazardous chemical applications
- Food and beverage processing
- Polymer and plastic manufacturing
- Bioprocessing and pharmaceutical manufacturing



High-throughput process BallProbe - 0.5 in.

0.5 in. diameter for demanding process applications, with 50% more signal

The HTP Probe incorporates an enhanced design that capitalizes on the robust sealing technology, materials, corrosion resistance, and pressure rating found in the 0.5in MarqMetrix Process BallProbe Sampling Optic. However, it sets itself apart with a substantial improvement: the incorporation of a larger sampling optic.

By increasing the diameter of the ball lens by 2mm, the HTP BallProbe significantly augments its light-gathering capability. This enhancement results in a remarkable 50% increase in signal strength compared to the 0.5in Process BallProbe Sampling Optic of equivalent length while maintaining all the key features that make it a reliable choice.



Specifications

Probe Immersion Length	10 in. (254mm)
Probe OD (Outside Diameter)	0.5 in. (12.7mm)
Sample Working Distance	TouchRaman (Sample contacts BallProbe lens)
Continuous Operating Temperature Range	-20°C to 300°C
Pressured Design Condition	6,000psi (413 bar)

Operating Conditions

Suitable for continuous exposure to 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

Wetted Materials

Probe Body	0.5 in. (12.7mm) OD Hastelloy C-276
Immersion Optics	8.00mm diameter UV-grade sapphire ball
Sealing Materials	Gold

Optical Properties

Made with high purity UV-grade sapphire ball lens aligned along the C-axis, eliminating response variability due to birefringence

Related Products

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

Thermo Scientific™ MarqMetrix™ Performance BallProbe™ Sampling Optic

Thermo Scientific™ MarqMetrix™ Fiber BallProbe™ Sampling Optic filtered fiber optic interface specifically designed for the MarqMetrix BallProbe and MarqMetrix All-In-One Process Raman Analyzer

Thermo Scientific™ MarqMetrix™ Proximal Probe Sampling Optic

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