

THE BALLPROBE®- 0.25 in.

0.25 in. (6.35mm) diameter, for small-diameter laboratory and light process applications with TouchRaman® immersion technology

Wetted Materials

Probe Body (OD)	0.25 in. (6.35mm) diameter Hastelloy C-276
Immersion Optics	6mm diameter UV-grade sapphire ball
Sealing Materials	High-temperature epoxy

Specifications

Standard Probe Length	6 in.
Probe OD (Outside Diameter)	0.25 in. (6.35mm)
Clear Aperture (max. Laser Beam waist)	0.18 in. (4.6mm)
Sample Working Distance	TouchRaman (sample contacts BallProbe lens)
Continuous Operating Temperature Range	-55°C to 150°C
Pressure Design Condition	6,000psi (413 bar)
Compatible Laser Wavelengths	500-1100nm

The MarqMetrix® BallProbe®- 0.25 in.

is a smaller-diameter variant of our robust TouchRaman immersion contact probe. Designed for moderate chemical environments in laboratory and light-process settings, this probe is constructed from Hastelloy C-276, UV grade-sapphire, and an epoxy seal with wide chemical compatibility. The probe is designed to fit in cuvettes and other narrow access vessels, while providing the same optical performance as the Process BallProbe - 0.5 in. diameter.



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.

Each probe accommodates a high-precision 6mm UV-grade sapphire ball lens and an internal focusing lens. The internal focusing lens improves performance and acts as an additional barrier against upstream chemical ingress.

Reduced sampling variation,
extreme durability and
remarkable ease-of-use.

For more information call:

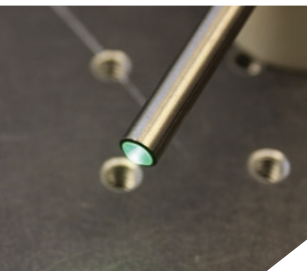
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The power of **Raman**, the simplicity of **MarqMetrix**

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The curvature of the sapphire ball facilitates material exchange near the surface of the lens, preventing the buildup of materials that interfere with spectral acquisition. The form factor and 'self-cleaning' properties make the BallProbe an ideal choice for process flow applications. The BallProbe - 0.25 in. has been installed in commercial applications ranging from oil classification to in-line polymer cure analyses.



The utility of the BallProbe is optimized when paired with our filtered fiber-optic interface, creating the MarqMetrix Fiber BallProbe—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.



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

Optical Properties

Accepts a collimated laser beam up to 4.6mm (0.18 in.) diameter

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

Operating Conditions

Suitable for intermittent 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, mixed acid, TFFA

Related Products

Process BallProbe - 0.5 in. diameter, a larger diameter BallProbe for more demanding process or laboratory applications

Fiber BallProbe® - filtered fiber optic interface specifically designed for the MarqMetrix BallProbe and MarqMetrix All-in-one Raman System



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U.S. Patent No. 6,977,729 BS