

# THE PERFORMANCE BALLPROBE®

MARQMETRIX

MEASUREMENT MADE SIMPLE

All-purpose probe for light industry and laboratory applications  
0.5 in. (12.7mm) diameter, with TouchRaman® immersion technology



## Wetted Materials

<b>Probe Body</b>	0.5 in. (12.7mm) diameter 316L Stainless Steel
<b>Immersion Optics</b>	8.00mm diameter UV-grade sapphire ball
<b>Sealing Materials</b>	High-temperature epoxy

## Specifications

<b>Standard Probe Length</b>	8.5 in. (215mm)
<b>Probe OD (Outside Diameter)</b>	0.500 in. (12.7mm)
<b>Clear Aperture (max. Laser Beam Waist)</b>	0.275 in. (7.1mm)
<b>Sample Working Distance</b>	TouchRaman (sample contacts BallProbe lens)
<b>Continuous Operating Temperature Range</b>	-55°C to 150°C
<b>Pressure Design Condition</b>	6,000psi (413 bar)
<b>Compatible Laser Wavelengths</b>	500-1100nm



## The MarqMetrix® Performance BallProbe®

The Performance BallProbe is our patented TouchRaman immersion contact probe designed to withstand moderate chemical environments in laboratory and industrial settings. The Performance BallProbe utilizes our largest spherical sapphire ball lens interface, enabling highly sensitive TouchRaman measurements. Our patented optics, exclusively sourced high-grade optical sapphire, and precision manufacturing allow for greatly reduced sampling variation and remarkable ease-of-use in a simple design.



The short focal length of the spherical optics 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 use allows non-specialists to collect high-quality data and eliminates user-to-user variation.

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

For more information call:

**206-971-3625**

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

## THE PERFORMANCE BALLPROBE®

0.5 in. (12.7mm) diameter, for light industry and laboratory applications with TouchRaman® immersion technology



The Performance BallProbe is manufactured from 316L Stainless Steel, providing a wide range of chemical compatibility in intermittent exposures. The Performance BallProbe optics are a high-precision 8mm UV-grade sapphire ball lens and an internal focusing lens. Our 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 spherical optics is affixed to the probe body using an epoxy designed for chemical resistance and high-temperatures.

The Performance BallProbe offers the same high optical performance of our Process BallProbe line, with economically friendly materials. The utility of the Performance 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.



High-precision 8 mm  
UV-grade sapphire ball lens  
and internal focusing lens

### Optical Properties

Accepts a collimated laser beam up to 7.1mm (0.275 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 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

**Process BallProbe** - 0.5 in. diameter, for more demanding process environments

**Fiber BallProbe** - filtered fiber optic interface specifically designed for MarqMetrix BallProbe and MarqMetrix Raman All-In-One



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