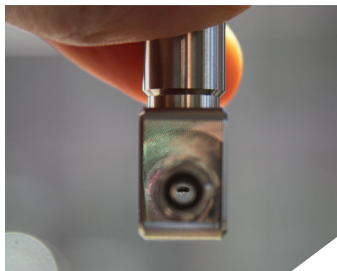
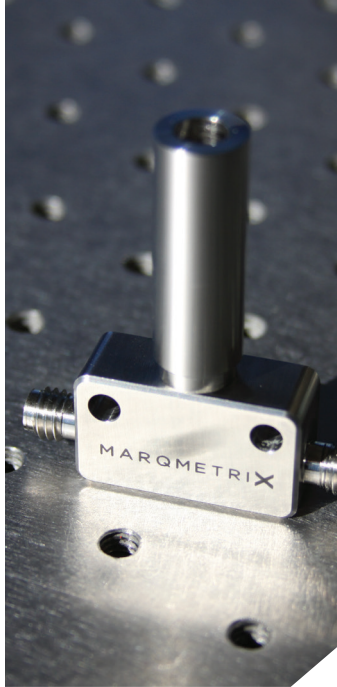


PROCESS ELITE FLOW CELL BALLPROBE®

with TouchRaman™ immersion technology



Wetted Materials

Probe Body	Hastelloy C22
Optical Interface	6.00 mm diameter UV-grade sapphire BallProbe
Sealing Materials	Perfluoroelastomer (Kalrez®) Gold option for higher pressure applications

Specifications

Fluid Connectors	Compatible with 1/8" Swagelok or Parker A-lok fittings
Body Dimensions	3.5cm W 2cm H 1.3cm T
Fiber probe interface	4cm long extender compatible with MarqMetrix Fiber BallProbe, or 4cm x .5" diameter probe extender compatible with Kaiser MR probes with manual compression fitting
Clear Aperture (max. laser beam waist)	0.220" (5.6mm)
Continuous Operating Temperature Range	-100 to 250°C with perfluoroelastomer seal -100 to 650°C with gold seal
Pressure Certification	500 psi (34 bar) with perfluoroelastomer seal 2500 psi (170 bar) with gold seal
Compatible Laser Wavelengths	400-1500 nm

The MarqMetrix® Process Elite Flow Cell BallProbe®

is a unibody BallProbe intended for demanding process flow-through applications. The unibody design places the patented spherical optic directly in the flow path, minimizing dead volume and sample handling requirements while taking full advantage of the optical efficiencies of the BallProbe.



Our patented optics, exclusively sourced, high-grade sapphire lens and precision manufacturing allow for greatly reduced sampling variation, extreme durability and remarkable ease-of-use in an elegant and simple design.

Each probe accommodates a high-precision 6 mm UV-grade sapphire ball lens and an internal focusing lens. The internal focusing lens improves performance and acts as additional protection against upstream chemical ingress. The spherical optic is affixed to high-performance Hastelloy housing using a custom perfluoroelastomer (Kalrez®) or gold-based compression sealing, providing a reliable high pressure and high temperature seal with exceptional chemical resistance.

For more information call:
206-971-3625
 info@MarqMetrix.com
 MarqMetrix.com

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The use of high-performance Hastelloy and sapphire makes the Process Elite Flow Cell BallProbe® impervious to harsh chemical environments. The Process Elite FlowCell has been installed in commercial applications ranging from cryogenic environments to boiling concentrated acids.

Additionally, the curved shape of the sapphire ball facilitates material exchange near the surface, preventing the buildup of materials that interfere with spectral acquisition. The form factor and 'self-cleaning' properties of the design make the Process Elite FlowCell an ideal solution for Raman measurements in process flow applications.

The Process Elite Flow Cell BallProbe® is optimized to integrate with the MarqMetrix Fiber BallProbe, but can be used with other fiber optic probes that have a collimated excitation beam co-linear with the collection path.

Optical Properties

Accepts a collimated laser beam up to 5.6mm (0.22") in diameter

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

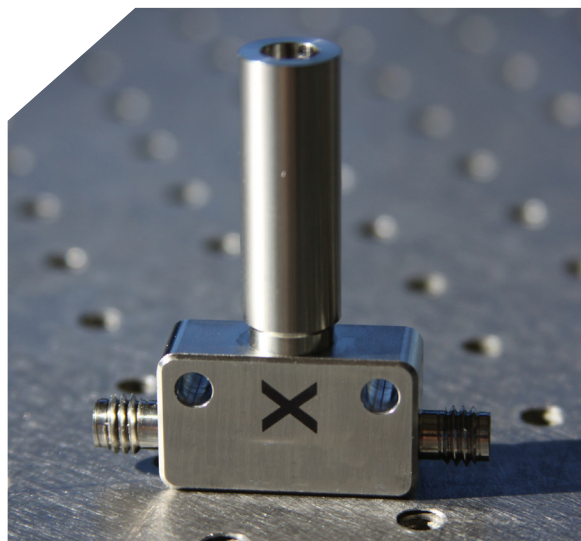
Operating Conditions

Suitable for 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 prolonged exposure to aqua regia (gold option)



High-performance Hastelloy and sapphire makes the Process Elite Flow Cell BallProbe® impervious to harsh chemical environments.



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