



Contact Ball Probe

- All-purpose probe for light industry and laboratory applications
- 0.5 in. (12.7 mm) diameter immersion probe



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

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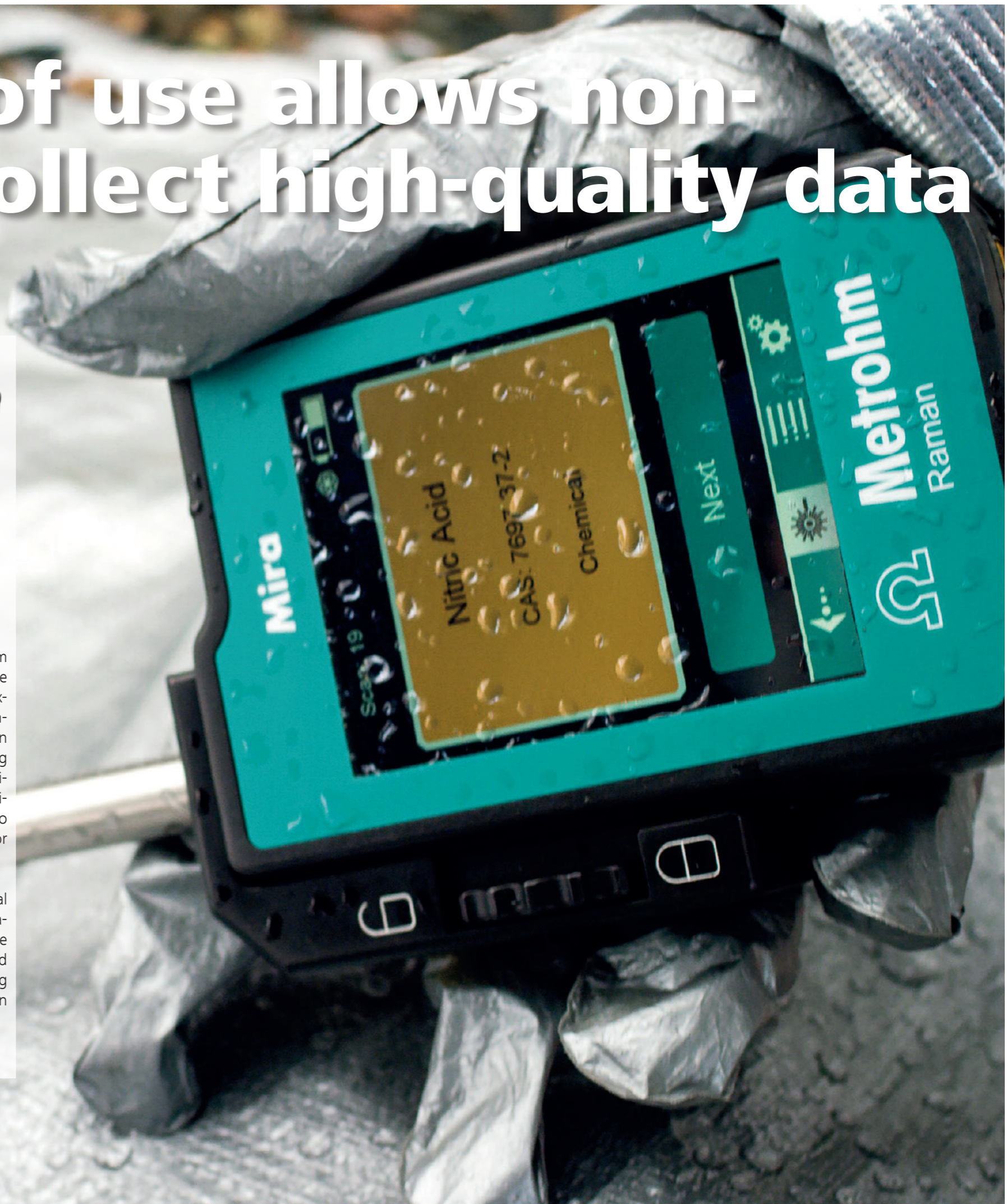


The Contact Ball Probe uses MarqMetrix patented TouchRaman™ BallProbe™ technology, designed to withstand moderate chemical environments in laboratory and industrial settings. The Contact Ball Probe utilizes our largest spherical sapphire ball lens interface, enabling highly sensitive measurements. Patented 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 direct contact analysis. Users simply touch the probe to the sample for highly reproducible sampling of liquids, solids, slurries, powders and heterogeneous mixtures. The simplicity of use allows non-specialists to collect high quality Raman data and eliminates user to user variation.

The Contact Probe is manufactured from 316L Stainless Steel, providing a wide range of chemical compatibility in intermittent exposures. Contact Ball Probe optics are a high-precision 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 the probe body using an epoxy designed for chemical resistance and high temperatures.

The Contact Ball Probe offers high optical performance with economically friendly materials. The utility of the Contact Ball Probe is optimized when paired with our patented Orbital Raster Scan™ – a complete sampling solution for accurate and repeatable Raman measurements.



Wetted Materials

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

Specifications

Probe Length	6 in. (152 mm)
Probe OD (Outside Diameter)	0.500 in. (12.7 mm)
Sample Working Distance	400 microns
Continuous Operating Temperature Range	-55 °C to 150 °C
Pressure Design Condition	6,000 psi (413 bar)

Optical Properties

- 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, TFAA



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