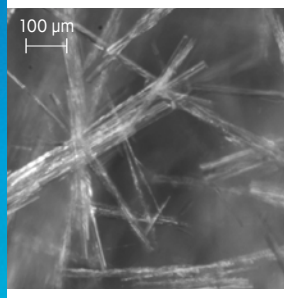
Particle Characterization

View Particles in Real Time

Ensure Comprehensive Understanding

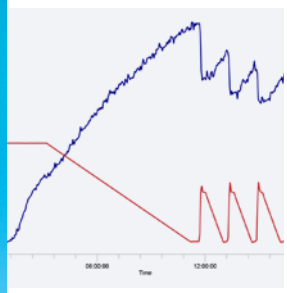
Study Particle Size and Shape

High-resolution imaging of particles in real time enables scientists to determine the influence of process parameters on particle size, count and shape. Particles can be designed to behave predictably as key parameters change during development, scale-up and manufacture.



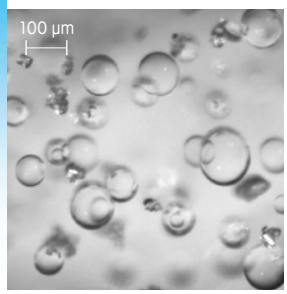
Capture Elusive Mechanisms

Particles and particle structures often change when sampled. By visualizing crystals, droplets and other delicate particle structures as they exist in process scientists can characterize transient events and elusive mechanisms that may be critical for optimizing the quality of a product or process.



Investigate Critical Process Events

An image-based trend, sensitive to changes in particle size and concentration, helps scientists identify and then investigate important process events and upsets. This fast and reliable method reduces the time and effort needed to fully understand complex particle systems and processes.



Make Evidence-Based Decisions

By visualizing particles and particle mechanisms inline scientists acquire knowledge that would otherwise prove too difficult or time consuming to obtain. Such knowledge supports evidence based decision-making and smarter process development at a lower total cost.

ParticleView™ V19

ParticleView V19 with PVM® technology is a probe-based instrument that visualizes particles and particle mechanisms in real time. High resolution images are continuously captured under a wide range of process conditions without the need for sampling or manual offline analysis. A process trend, sensitive to changes in particle size and concentration, is automatically combined with the most relevant images providing scientists with a straightforward and reliable method to ensure comprehensive process understanding is acquired with every experiment.

METTLER TOLEDO

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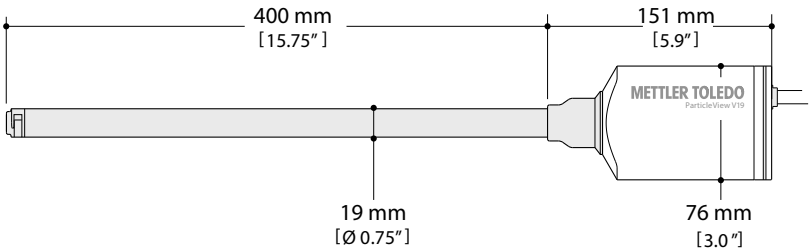
Technical Data

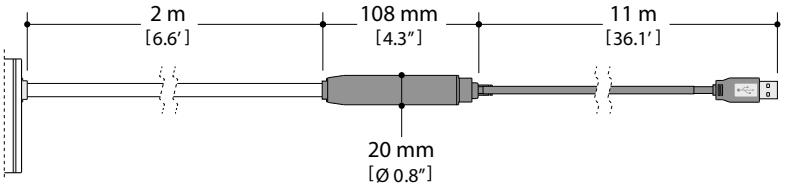
Probe Wetted Material	C22 Alloy
Probe Window Material	Sapphire
Probe Diameter	19 mm [0.75 in]
Probe Wetted Length	400 mm [15.75 in]
Conduit Length	2 m [6.6 ft]
Probe Window Seals	TM (standard, no o-rings)
Field of View	1300 µm x 890 µm
Optical Resolution	> 2 µm
Probe Wetted Temperature Range	10 °C to 120 °C (standard); -80 °C to 120 °C (purged)
Probe Back End Temperature Range	0 °C to 40 °C
Probe Wetted Pressure Range	0 to 10 barg (standard); up to 100 barg (custom)
Air Requirements (use to avoid condensation when operating below dew point)	2.0 barg [30 psig]; 0.5 SLPM (0.02 SCFM) (clean, dry instrument-quality air or Nitrogen purge gas)
Power	USB Extender: 100-240V (auto-switching), 50/60 Hz, 0.3A
Certification	IEC/UL/CSA 61010-1; EN 61326-1; Class 1 Laser Device compliant with 21CFR1040.10, 21CFR1040.11 and IEC 60825; Probe back end rated for IP65 and 4X.

*ParticleView V19 is not rated for explosive locations.

Probe Dimensions



Interface Unit (no base unit required)



Incorporate real-time *in situ* probes (ParticleView, ParticleTrack, ReactIR) into synthesis workstations for information rich experiments helping to deliver improved process efficiency and product quality.

www.mt.com/autochem

Mettler-Toledo AutoChem, Inc.
7075 Samuel Morse Drive
Columbia, MD 21046
Phone +1 410 910 8500
Fax +1 410 910 8600

www.mt.com/V19

For more information

SYNTECH INNOVATION CO., LTD.
TEL : +66-2-363-8585
FAX : +66-2-363-8595
info@syntechinnovation.com
WWW.SYNTECHINNOVATION.COM