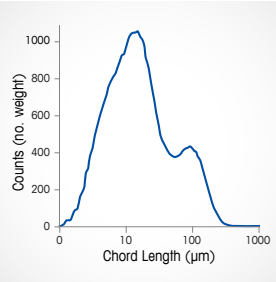
Particle Characterization

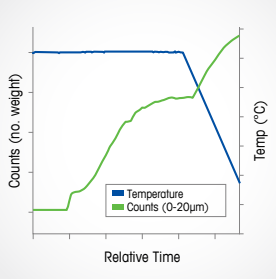
Inline Particle Measurement with FBRM®

Faster Process Development and Scale-up



Inline Measurement of Particle Dimension, Shape, and Count

FBRM® G600L measures changes in particle dimension, shape and count. Real-time trends and distributions track changes to particles as they naturally exist in process – eliminating the need for offline sampling.

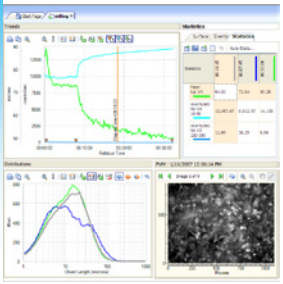


Understand, Optimize, and Transfer

Understand how the particle system responds to changes in critical process parameters. Optimize the particle distribution to improve process performance and product quality. Transfer the process to achieve batch repeatability and process stability at any scale.

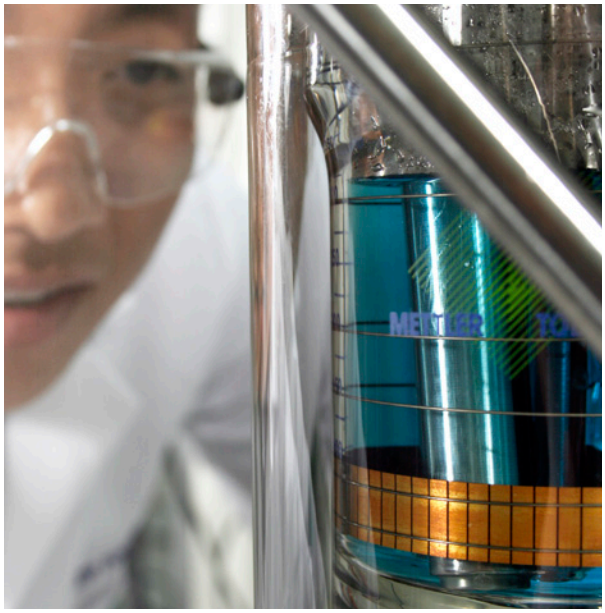
Designed for Robust and Reliable Performance

G600L is ideal for small pipelines or laboratory vessels. The pneumatically driven probe connects to a dust tight field unit through reinforced conduit. A robust air bearing design ensures consistent and reliable performance from -80°C to 150°C.



iC FBRM™ Software

iC FBRM™ provides powerful data acquisition and interpretation tools to quickly and easily evaluate experimental data. Combine FBRM® data with inline PVM® (Particle Vision and Measurement) images for direct visual confirmation of results, leading to faster understanding and optimization of particle and droplet systems.



FBRM® G600L

Particle and droplet processes are inherently difficult to optimize and control. Sampling for offline particle size analysis often changes the properties of the particle system or can actually disturb the process. FBRM® (Focused Beam Reflectance Measurement) is a real-time quantitative measurement that tracks the rate and degree of change to particles, particle structures, and droplets as they actually exist in process. Inline FBRM® measurements enables scientists and engineers to quickly link particle system dynamics to process conditions - assuring optimal product quality efficiency such as filtration and other downstream processes.

METTLER TOLEDO

Inline Particle Measurement with FBRM®

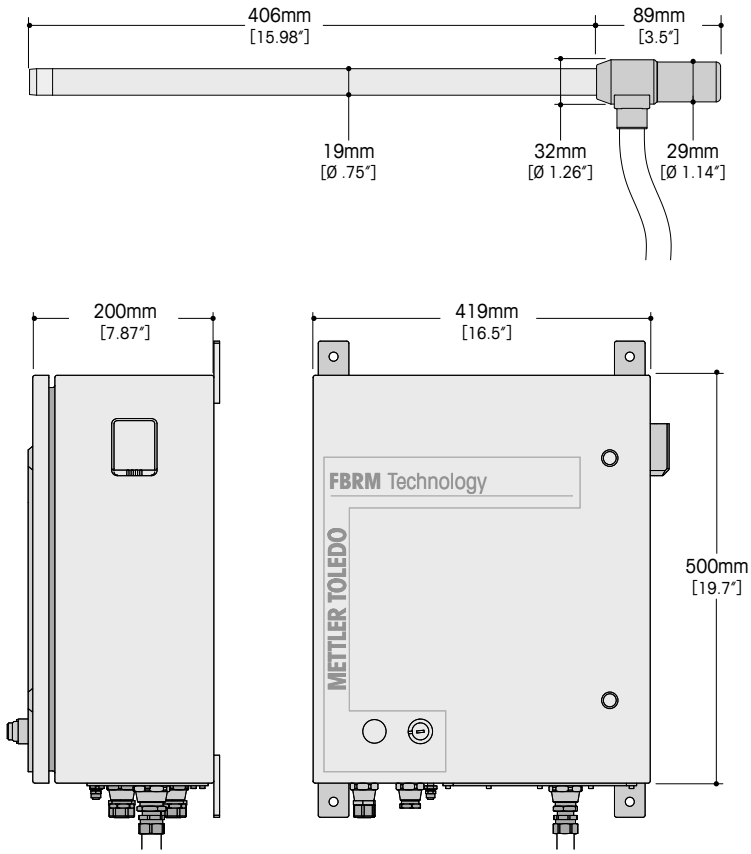
Faster Process Development and Scale-up

METTLER TOLEDO FBRM® is the world leading Process Analytical Technology (PAT) for inline particle characterization in the bio-pharmaceutical and chemical industries.

From the crystallization and precipitation of organic and inorganic chemicals to solids flocculation to crude oil/water separation and emulsion stabilization, FBRM® provides engineers and scientists with information to enhance process performance and control particles in real time.

Optimize Scale-up

FBRM® real-time particle characterization can be used to optimize and control batch to batch repeatability upon scale-up from the lab to manufacturing.



Technical Data

Probe Wetted Materials	Alloy C22, Sapphire Window, Kalrez 6375 O-rings
Probe Tip Diameter	19mm
Probe Wetted Length	400mm
Detection Range	0.5µm - 3000µm
Probe Tip Temp Range	-10°C to 120°C (standard)*; -80°C to 150°C (custom)
Probe Pressure Rating	10bar* (standard); up to 100bar (custom)
Conduit Length	5m (16.4ft)
Field Unit Temp Range	0°C to 45°C (below 0°C custom available)
Field Unit Material	316 Stainless Steel
Field Unit Temp Range	0°C to 45°C (standard); below 0°C available (custom)
Air Supply Pressure	Min: 4 barg (60 psig)
Air Supply Flow	Max: 28.3 NL/min (1.0 SCFM)
Power	100–240VAC (auto-switching), 50/60Hz, 0.5A

*Temperature and Pressure range specifications are conservative ratings, but should not be exceeded unless specific exceptions are made for a given installation. Contact a METTLER TOLEDO Technology and Applications Consultant (TAC) for information about extreme-temperature or high-pressure applications.

Certification	NRTL Certificate U8 11 08 72618 006; CE Approved

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

www.mt.com/FBRMG600L

For more information