thermo scientific

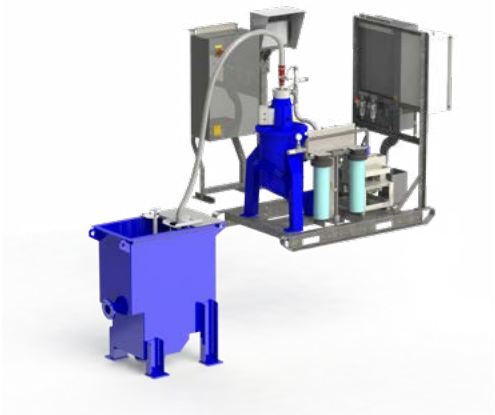
PSM-500

On-line Particle Size Analyzer

The Thermo Scientific Particle Size Analyzer PSM-500, provides real time, in-stream particle analysis of up to three streams. Measuring up to five particle size fractions simultaneously.

The PSM-500 provides accurate feedback for the optimization of grinding circuit performance helping customers not only to enhance mineral recovery and quality but also to optimize their energy efficiency during the process.

This unit, is a rugged on-line Particle Size Analyzer which pulls its own continuous sample using a vacuum eductor. To assist with the ultrasonic measurement, the sample is de-aerated in the sample conditioner before it passes between ultrasonic sensors and is returned to the process.



Features

- Robust with Ingress Protection Rating IP65.
- Rugged internals, NEMA approved 4X corrosion resistant.
- All new software and contemporary user interface.
- Higher bandwidth and field replaceable transducers.
- No dilution required.
- % of solids measurements is standard.
- Improved alarms, status display and reports.
- No UPS needed.
- Full colour intuitive local touch-panel user interface.
- No pumping.
- Size range between 1 to 1000 microns (can be optimized according to application).
- Data are typically accurate to better than 1% absolute.
- High availability.
- Ultrasonic hard ware.
- Measurement updates time, typically 10 sec.
- Upgradable from PSM-400MPX.

Benefits

- Enhances mineral recovery by providing accurate analysis of particle size distribution and percent solids.
- Increases energy efficiency by assisting the grinding control with the recovery and the throughput of minerals.
- Designed to work in the harshest environment conditions with temperature compensation and wider operation range.
- Easy to be calibrated through the new modern interface and control systems.
- Increased signal performance thanks to the new flow cell transducers.
- Lower cost of ownership since transducers are field replaceable.
- Lower maintenance.

Find out more at **thermofisher.com/minerals**

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Thermo Scientific PSM-500 On-line Particle Size Analyzer

Component	Height (mm)	Width (mm)	Depth (mm)	Weight Empty (kg)
Analyzer	1830	1125	1800	950
Duplexer	410	287	627	36
Triplexer	410	515	627	52
Duplexer/Triplexer Post	1950	240	240	32
Demagnetiser Coil (optional)	236	219	502	23
Demagnetiser Controller (optional)	600	600	370	45

Environmental	
Operating Temperature	Ambient -10 to +50°C
Vibration	Not to exceed 10G at 20Hz
Operating Altitude	0 - 5000 mts
Environment	Direct exposure to sunlight and ultraviolet radiation is not permitted. Not rated for unprotected, out-of-doors operation
Materials	Wetted parts: engineering polymers or rubber covered steel
Paint	Commercial sandblast, surface preparation, polyurethane fill primer two part epoxy colour finish
Sample Characteristics	
Chemical	Caustic slurries up to PH of 12.5
Volume	32 to 72 LPM (8 to 18 US GPM)
Temperature	0 to 50°C
% Solids Wt	10% Minimum to 60% Maximum
% Solids Vol	3% Minimum to 26% Maximum
Particle Characteristics	
Maximum Transport Diameter	<2.3 mm @ <1% retained by Wt. @ 2.7 SG, <1.2 mm @ <1% retained by Wt. @ 5.1 SG
Density	2.0 to 5.5 SG for dry solids
Utility Requirements	
Power	380-600 Volts 50/60 Hz; 3 Phase
Air	Minimum Pressure – 552 kPa; Maximum Pressure – 1034 kPa; Maximum Flow – 17m3/h @ 690kPa
Clean Plant Water	Minimum Pressure – 276 kPa; Maximum Pressure – 689 kPa; Flow – 45 litres/min
Standardisation Water	Clean potable; Flow – 6-18 litres/day
Data Cables	CAT5/6/6e network cable directly to analyzer (less than 100m in length)
Compliance and Standards	
Electrical Enclosure	IP65; CE; ICES 001, CSA, FCC Part 15B and RCM
Quality Assurance	Adelaide manufacturing facility ISO-9001:2000 certified

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or email **Sales.AUADL@thermofisher.com**

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