

Size monitor for nanoscaled particles

Aello 1560

The in-situ probes of the **Aello 1500 series** are sensors for the characterization of liquid, disperse and high concentrated systems. The experience of many years research and development of optical sensors resulted in this device group of very compact in-situ probes.

The Aello 1560 probe utilizes the spectral extinction of light as measuring principle. Thus this type of sensor is particular suitable for in-line process monitoring and control of complex and high concentrated multi-phase systems. The system enables to measure the size and concentration of submicron dispersions. This is especially important for quality control in polishing processes. The design of the Aello1500 series considers an easy cleanability. An integrated evaluation unit and a direct connectivity to an external PC interface minimize the hardware requirements.



Measurement of:

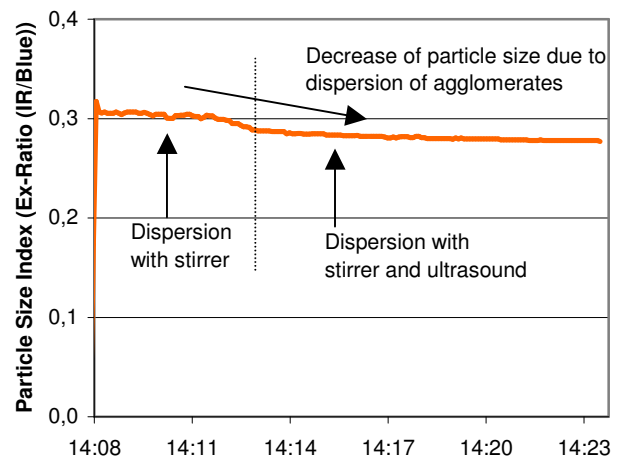
- | | |
|-------------------|----------------|
| ▫ Extinction (ln) | 0 – 8 |
| ▫ Size* | 90 nm – 1,6 µm |
| ▫ Concentration* | 0 – 15 wt% |

* The respective measuring range of the Aello measurement systems depends on the respective particle system (size, optical properties, refraction index etc.)! These properties need to be defined prior measurements.

Specification:

- Particular suitable for CMP-slurries
- configuration and monitoring PC-software
- Long term stable, robust
- Low maintenance demands
- Easy to handle and clean
- Sensor-integrated display
- Menu guided program
- Integrated micro controller
- Free programmable output
- Serial and analog interfaces

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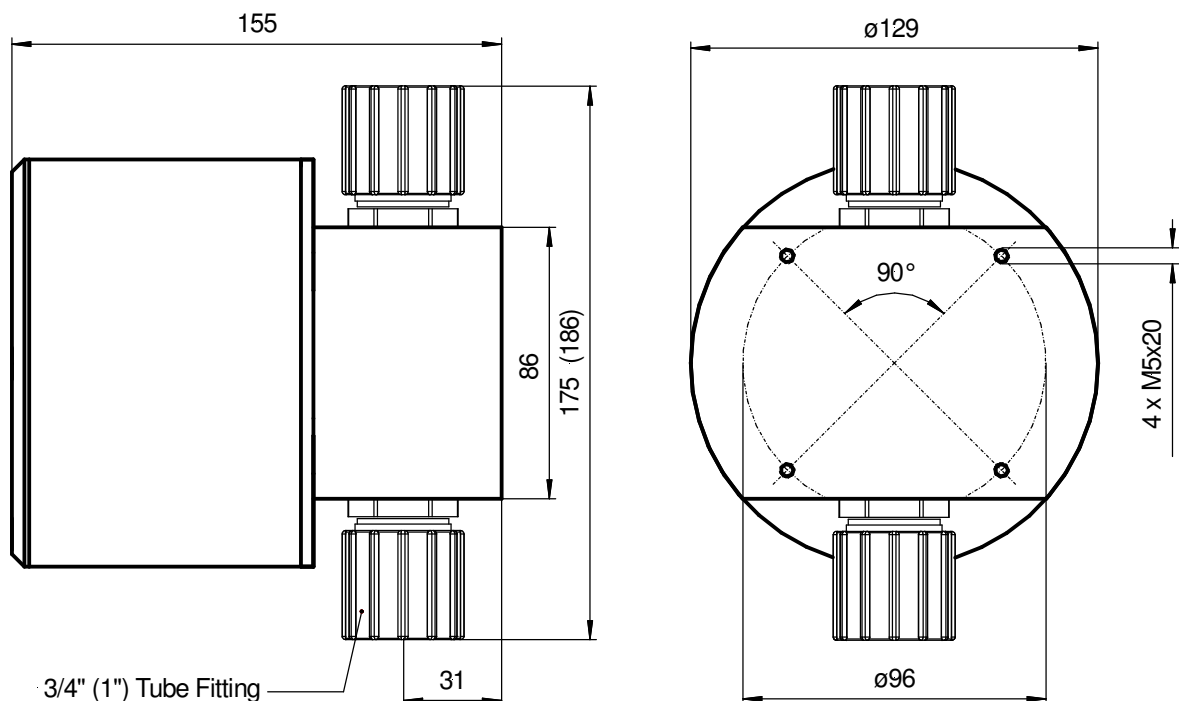
Size index of a Ceria-slurry

Technical data:

Measurement range*:	0,05 – 15 weight-%*, 90 nm – 1,6 µm* (depending on behavior the particle system)
Analogue Output:	4 - 20 mA
Alarm Output:	L-active (Open Collector, max. 100 mA, max. 30V)
Communication:	RS-232 or RS-485
Power supply:	24 V DC (18-36 V)
Maximum Pressure:	5 bar
Temperature:	-10 ... + 50 °C
Housing material:	PP
Sealing material:	NBR
Window material:	Fused silica
Diameter:	Approx. 5,1" (130 mm)
Length:	Approx. 6,9" (175 mm) to 7,3" (186 mm)
Connection:	Flare Ware 1" fittings (optional NPT 1" or 3/4")

Other materials and set-ups for high-pressure applications and temperature on demand

Dimensions:



Dimensions of the Aello 1560 with Fare Ware 1" fittings