

An ultrasonic cleaning technology – improving measurements in industrial environments!

sonicwipe is an ultrasonic add-on taking care of the cleanness of sensors.

sonicwipe drags small particles in suspensions from sensors in order to keep them clean and to provide continuous measurements.

No more layer influenced measurements and no more time consuming taking out the sensor for cleaning which often leads to production downtimes.

In-line (in-situ) PAT probes in liquids often require frequent maintenance such as cleaning and therefore have to be removed from the process.

This leads to potential loss of:

- Process control
- Quality
- Time
- Yield
- Safety

sonicwipe improves

- cleanness:
no layer-formations and sediments on the probe, which influence the measurement
- continuity:
probe stays in place, no external cleaning necessary – the process doesn't have to be interrupted
- process control:
In-line data, no distortion due to probe-taking, no contact with hazardous substances

Advantages for the User

- Applicable for various probe-forms, variable integration possibilities
- Only small integration space necessary, due to possibility of downscaled engineering


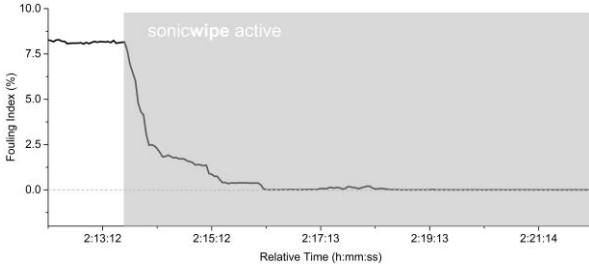
Potential Applications

- Concentration measurement for e.g. in machining industry (lubricants, cleansing liquids,..)
- Optical measurement techniques, microscopy, turbidity measurement, refractometry, Focused beam reflectance measurement (FBRM)
- Spectroscopy (for e.g. MIR, NIR, Raman, UV/Vis)
- Chemical potential analysis (pH value, redox-potential, oxygen,...)
- Etc.



sonicwipe system with
ultrasound-cleaning lance in 1.4404 steel



Application-example Petrochemistry	Application-example Biofilm
<p>Simultaneous interaction of petrochemical production-waste water on two sensor-dummies (glass surface). The contamination was widely prevented by the influence of the ultrasonic field.</p>  <p>No ultrasound With ultrasound</p> <p>The degree of contamination was assessed through wiping off the dirt with a piece of cloth, based on comparison of the tissue discoloration.</p> <p>The cleansing effect of the ultrasonic field is clearly noticeable.</p>	<p>A biofilm formed on a Focused Beam Reflectance probe due to fermenting yeast cells. The film was removed through application of the sonicwipe.</p>  <p>Fouling Index (FI, degree of contamination) during the execution of various ultrasound protocols.</p> <p>Measurement shows the thorough cleaning due to usage of the sonicwipe.</p>

Add-on for In-line-Process-Probes (PAT) – Industry 4.0 Style:

- Machining Industry
- Waste & Productionwater
- Lubricating & Cooling liquids
- Food & beverages
- Petrochemical Industry
- Drinking Water Monitoring
- Biotech production
- Pharmazeutical Industry

Datasheet

Length: various lengths possible
Diameter: currently with D25/Ingold port for probes up to 19 mm diameter
other product variants according to customer requirements
Max. Process-temperature: 140 °C
Max. Pressure (inactive): tested: 3 bar at 130°C for 30 minutes (autoclaving)
Materials: current standard: 1.4404 stainless steel (316 L)
possible after consultation: Viton, glass, ceramics, Macor, Hastelloy X,
Hastelloy C276
CIP/SIP capable

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