rheonics

Rheonics SlurrySense™

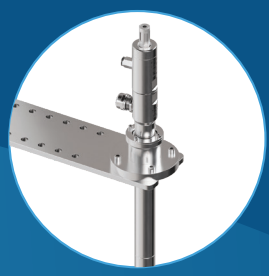
Smart filtering technology for higher-confidence measurements



CleanWave™ Technology



Stainless steel surface



Mounting adapters



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Rheonics SlurrySense

Rheonics SlurrySense™ (SLS) is a self-cleaning sensor for density and/or viscosity, and temperature measurements based on Rheonics SRV or SRD sensors. It utilizes the self-cleaning technology CleanWave™ (CLW). This system uses compressed air to create vibrations that can continuously shake off deposits from sticky or abrasive slurries, ensuring accurate measurements and reducing the need for frequent manual cleaning and downtime. The SlurrySense with CleanWave is designed for slurries where standard SRV/SRD sensors cannot achieve reliable measurements. Using the CleanWave, reliable, low noise data can be obtained. It can be mounted in various configurations, including adjustable or fixed insertion.

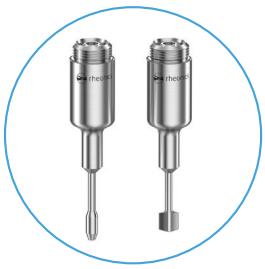
Specifications

Fluid Measurements	
Parameter	**Value**
Density Range (SRD only)	0.0 - 4.0 g/cc 0.0 - 4000 kg/m3 0.0 - 33.38 lb/gal
Density Accuracy (SRD only)	0.01 g/cc (0.001 g/cc & higher accuracy available)
Viscosity Range	1 to 3,000 cP (SRD) 0.5 to 50,000 cP (SRV)
Viscosity Accuracy	5% of reading (standard) 1% & higher accuracy available
Reproducibility	Better than 1% of reading
Temperature	-20 to 65 °C (-5 to 150 °F)

Operational Conditions	
Parameter	**Value**
Material	Stainless Steel 316L
Sealing Material	Cleanwave - Sensor FKM (Fluoroelastomer, FPM, and Viton)
Total Length	Standard: 500 mm, 1000 mm Customization Available
Installation Accessories	Mounting Base Filter, Regulator, and Lubricator Kit
Air Line Size	8 mm
Air Line Pressure	2-6 bar (30-90 psi)



Features



SRV and SRD compatibility

Built to be compatible with Rheonics Density meter SRD and Viscometer SRV



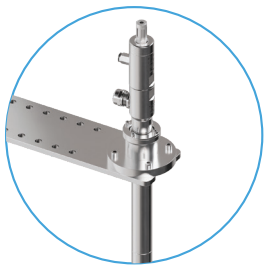
CleanWave Technology

Integrated harmonics generator prevents slurry deposition on the probe



Stainless steel surface

Full Stainless Steel 316L fully sealed metal construction



Mounting adapters

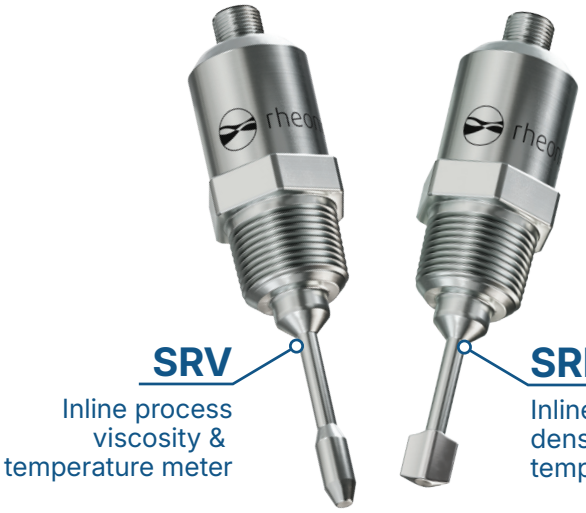
Simple installation on slurry drums or tanks with Rheonics adapters

Rheonics Sensor Compatibility

Rheonics Type-SR sensors provide the highest precision, real-time viscosity and density (SRD) data, enabling automation of the most challenging food & beverage applications. Our comprehensive solution platform ensures perfect material consistency, transforming reactive measurements into proactive quality assurance.

Type-SR sensors

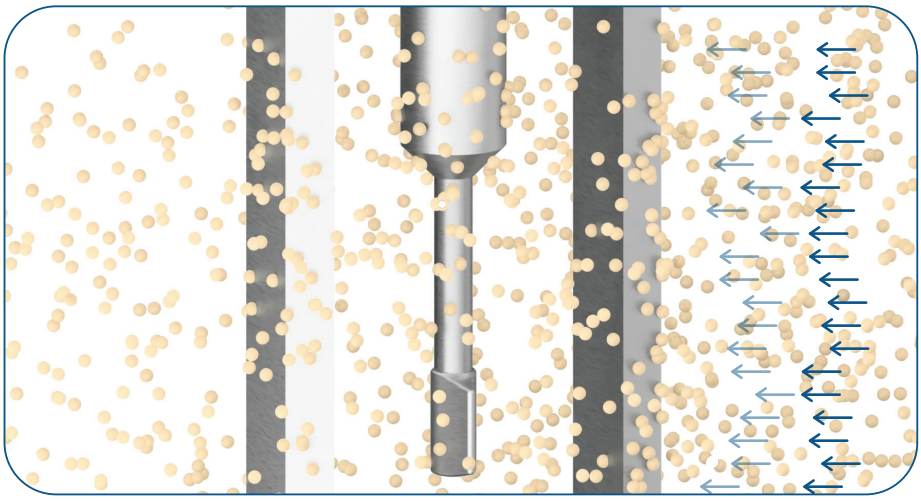
- **Repeatable measurements** in both Newtonian and non-Newtonian fluids.
- **Hermetically sealed**, available in 316L stainless steel and Hastelloy C22 wetted parts.
- Built in fluid temperature measurement.
- **EHEDG and 3-A** certified and CIP/SIP ready.



Working Principle

CleanWave™ (CLW) is a pneumatic axial vibration module that provides self-cleaning properties to the SlurrySense sensor. The axial vibration continuously prevents deposits from settling on the sensing element, which is essential for accurate readings.

The key to the SlurrySense with CleanWave solution is operating the cleaning vibration at a much lower frequency than the measurement frequency of the Rheonics sensor. This ensures that the cleaning vibration cannot interfere with the measurement process, making it possible to clean continuously without interrupting measurement.



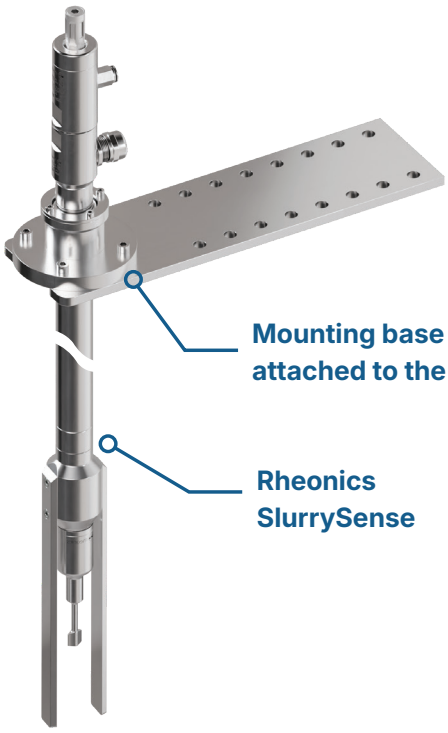
Advantages

- Sensor probe with self-cleaning harmonics
- Eliminates need for removal and cleaning
- Measures reliably in the most deposition prone slurries
- Reduces reliance on plate-weight or efflux cup measurements

Installation

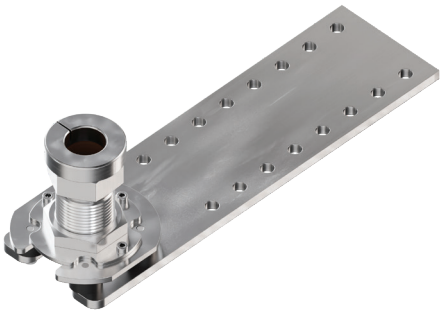
Our sensors are designed for simple, robust integration into existing pipelines and tanks. Featuring standard process connections and versatile mounting options (including the Rheonics SlurrySense), they allow for quick installation with minimal process downtime, ensuring reliable operation even in harsh industrial environments.





Mounting Kit variants

Designed for easy integration into a variety of process, the mounting kits provide secure installation and precise sensor placement. Multiple configuration options ensure the flexibility needed to meet different process and application requirements.



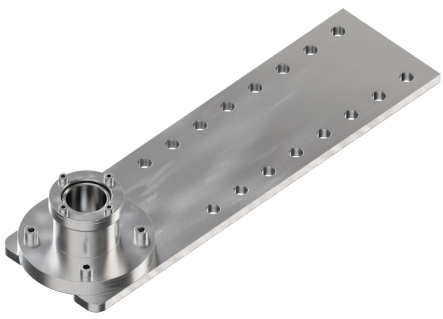
MKT1

Adjustable Mounting Kit 1



MKT2

Fixed mounting kit with heat-shrink rings



MKT3

Fixed mounting kit for closed processes (flange) or open tanks

Representative visuals may look different than actual products

Electronics & Communication

Rheonics Sensor Electronics is responsible for collecting and processing viscosity and/or density measurements using a patented algorithm, as well as handling communication protocols. The available variants are:



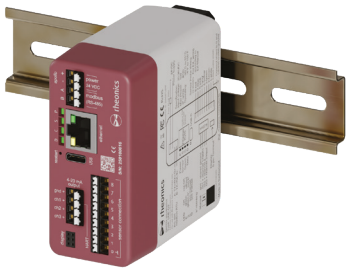
SME-TRD

IP66 enclosures with integrated display



SME-TR

IP66 enclosures



SME-DRM

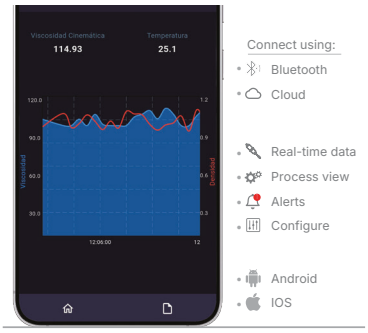
35mm DIN rail mount

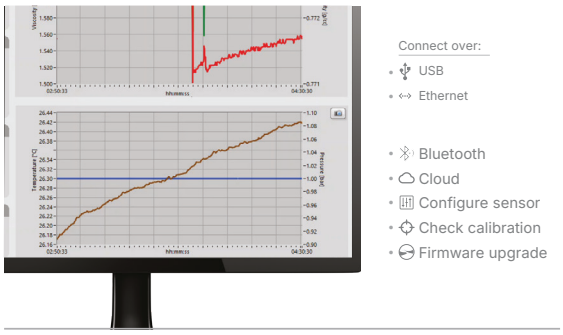
Representative visuals may look different than actual products

Bluetooth · Modbus RTU · EtherNet/IP · ETHERNET TCP/IP · PROFINET · WirelessHART · Onboard Historian · Modbus TCP · 4-20 mA · HART COMMUNICATION PROTOCOL · USB

Rheonics Application, PC Data Acquisition & Analysis

The Rheonics ecosystem allows for instant connection to the RCP via Bluetooth, Ethernet, or USB. Whether you are using a smartphone or a PC, our intuitive interface provides real-time insights into viscosity, density, and temperature.





Certifications

Designed for critical applications, our probes can be supplied with major international approvals, ranging from hygienic and sanitary certifications (EHEDG, 3-A), to compliance standards (ISO, CE), and explosion protection for hazardous areas (ATEX, IECEx, JPEx, KCs).

rheonics

Ready to optimize your production and enhance quality?

Get in touch to unlock real-time process insights.

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