



# Rheonics Calibrator: for Type-SR Sensors

Flexible on-site calibration with high temperature accuracy, traceability, and calibration certificates.



## Rheonics Calibrator

In many industries – including pharmaceuticals, food and beverage, petrochemicals, and chemical processing – regulatory frameworks and quality standards require that measurement instruments carry valid, traceable calibration certificates. Rheonics SRV and SRD sensors are designed for high accuracy and long-term stability. To align with industry standards, the Rheonics Calibrator addresses this requirement by verifying the performance of SRV and SRD sensors under controlled conditions, and certifying the accuracy of the readings.



Parameter	Value
Temperature stability	0.005°C
Temperature accuracy	Class AA with a tolerance of $\pm (0.10 + 0.0017  T )$ °C
Temperature Control System	Peltier-Element
Operating Temperature	10 °C (or 15 °C below room temperature) up to 150 °C
Ambient Temperature	-10 – 50 °C (15 – 120 °F)

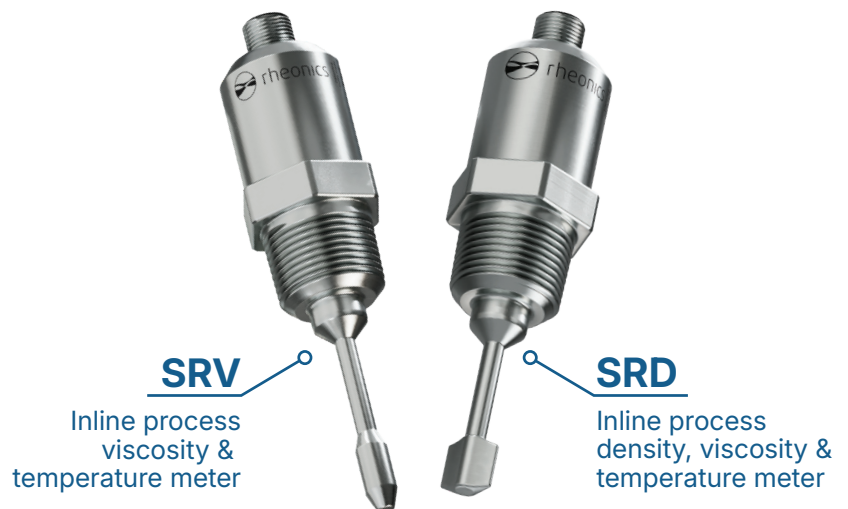
Parameter	Value
Dimensions	380 × 235 × 220 (mm) 15 × 9.5 × 8.5 (inch)
Total Weight	11 Kg (24 lb)
Communication interfaces	RS-485 and USB-C
Power Input	110 / 220 V AC
Power consumption	max. 150 W

## Rheonics Sensor Compatibility

Rheonics Type-SR sensors, the SRV viscometer and SRD density/viscosity meter, are fully supported by the Calibrator. Both have interchangeable sample fluid cylinders adapt to most SRV and SRD probe variants, making in-field calibration practical across applications.

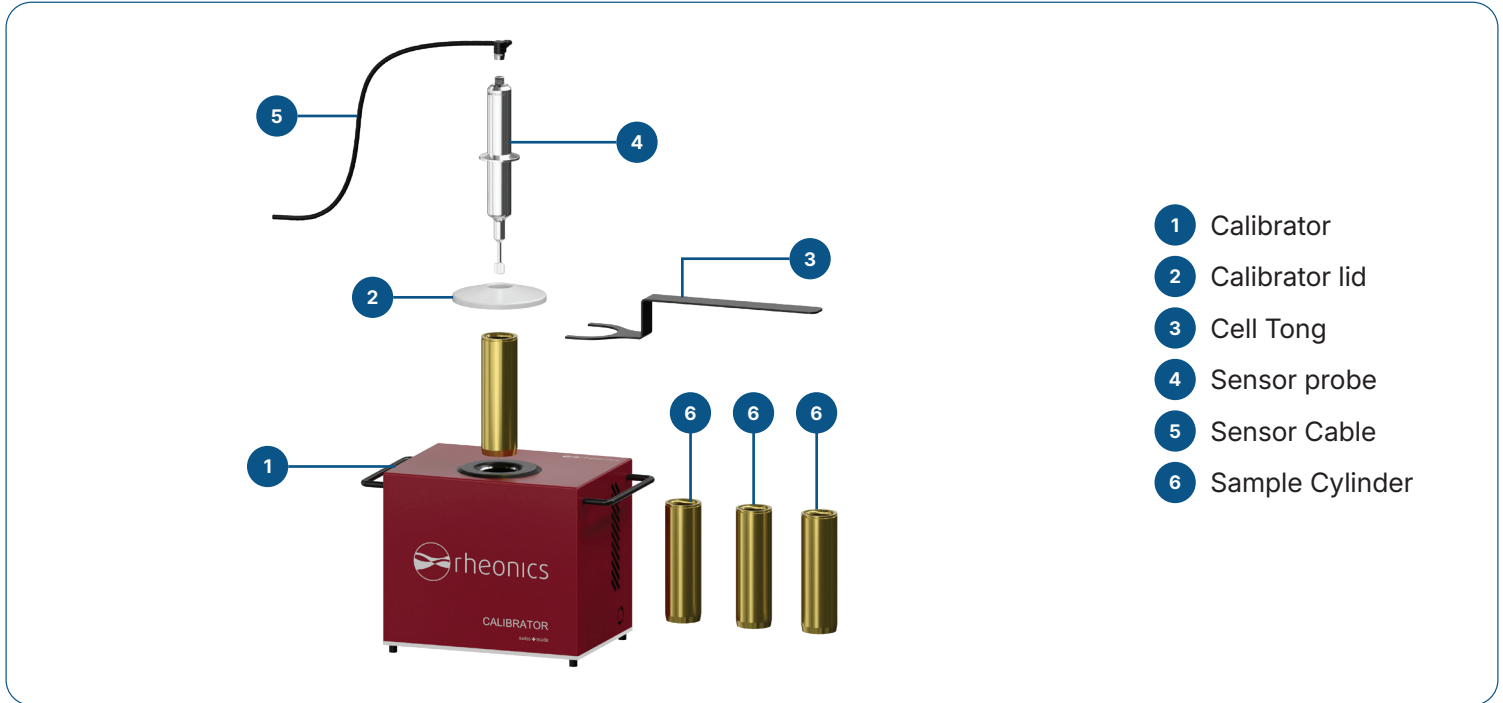
### Type-SR sensors

- **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.



## Rheonics Calibrator - Operation and Components

The Rheonics Calibrator can be used on-site to calibrate SRV Viscometers and SRD Density and Viscosity Meters. The Rheonics Calibrator Software performs the measurement, adjusts the calibration if needed, and creates a calibration report and writes a log onto the sensor electronics (SME).



- 1 Calibrator
- 2 Calibrator lid
- 3 Cell Tong
- 4 Sensor probe
- 5 Sensor Cable
- 6 Sample Cylinder

## Main Features



### On-site Calibration

The Calibrator's compact form factor – comparable in size to a standard coffee machine – enables calibration at the point of installation. There is no need to ship sensors, significantly reducing downtime and logistics costs.

### Calibration Certificates

The Rheonics Calibrator Software automatically generates calibration reports and certificates. These documents record measurement data, reference values, calculated coefficients, and temperature conditions, providing a complete audit trail for quality management systems.

### High Temperature Accuracy

With temperature stability of 0.005 °C, an accuracy of class AA, and a range of 10 – 150 °C, the Calibrator provides the precise thermal environment needed for repeatable, traceable calibrations in a wide temperature range.

### Compatibility and Flexibility

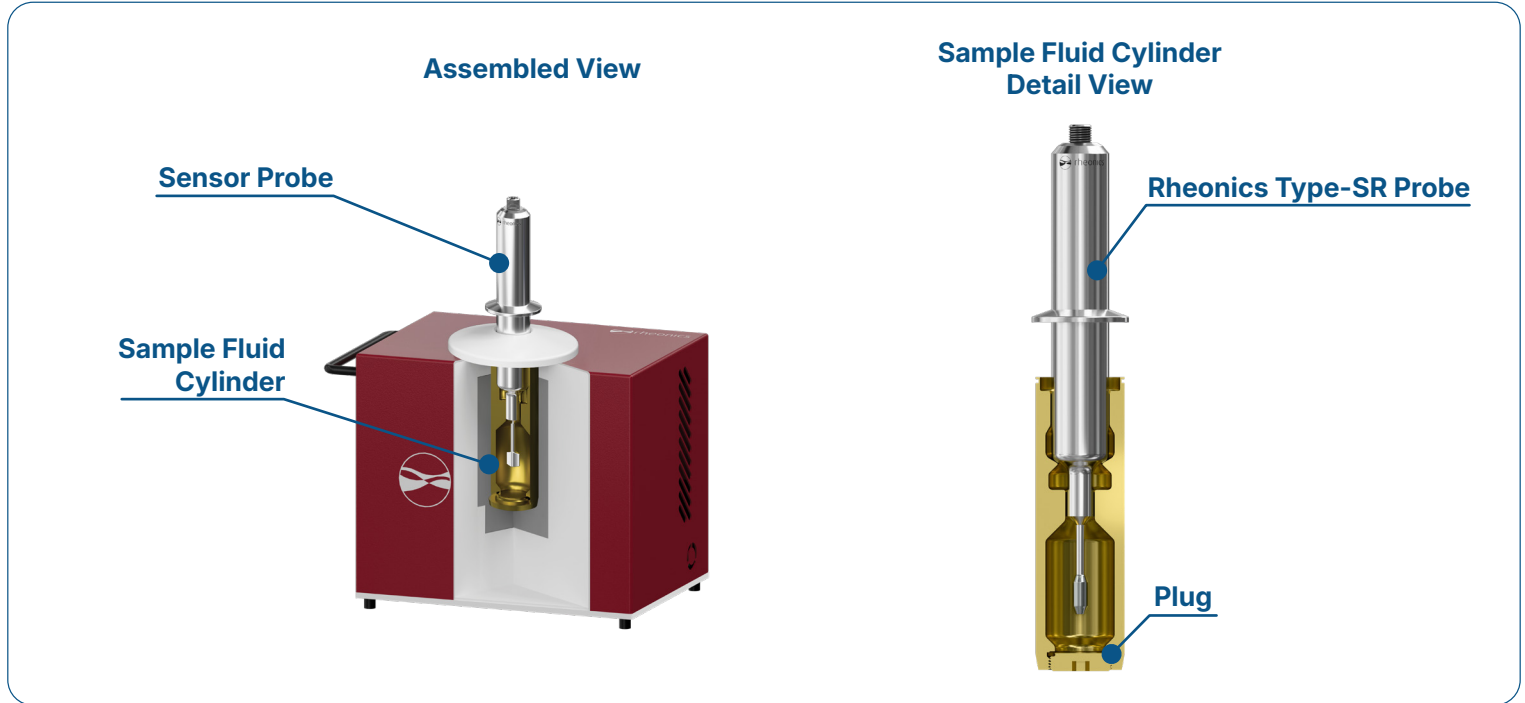
The Calibrator is compatible with most SRV and SRD Type-SR probe variants through interchangeable sample fluid cylinders. A fluid volume of 20 or 60 mL is sufficient, making it practical for routine in-field use.

### Coefficient Traceability

The SME electronics maintain a full history of calibration coefficients – factory defaults, previous user calibrations, and the current active set, ensuring full traceability.

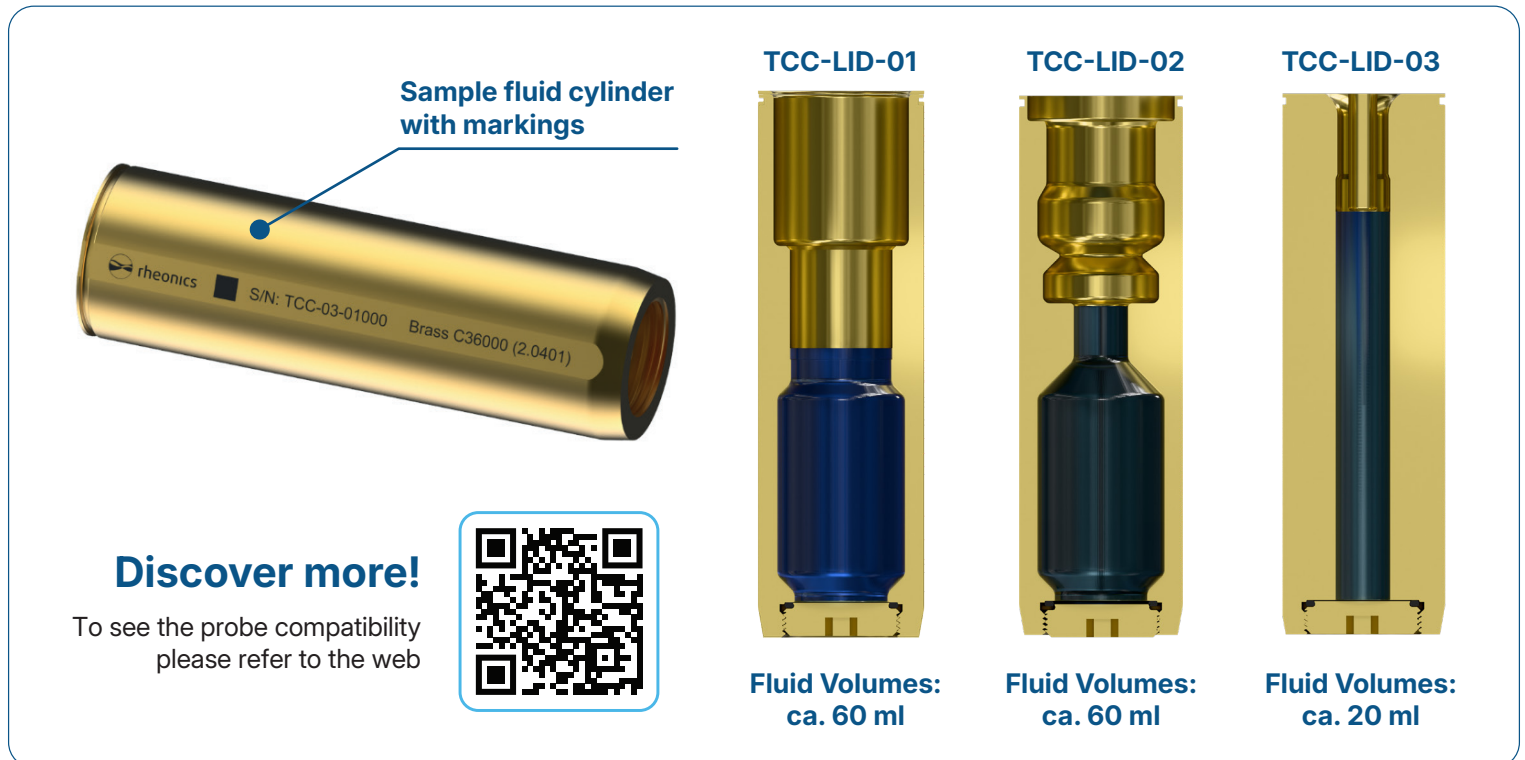
## Rheonics Calibrator - Probe and Cylinder Assembly

During calibration, the Rheonics Type-SR probe is inserted into the sample fluid cylinder, which is then placed inside the Calibrator. The probe sits fully immersed in the calibration fluid, while the plug seals the cylinder to maintain a stable, uniform temperature around the sensor tip.



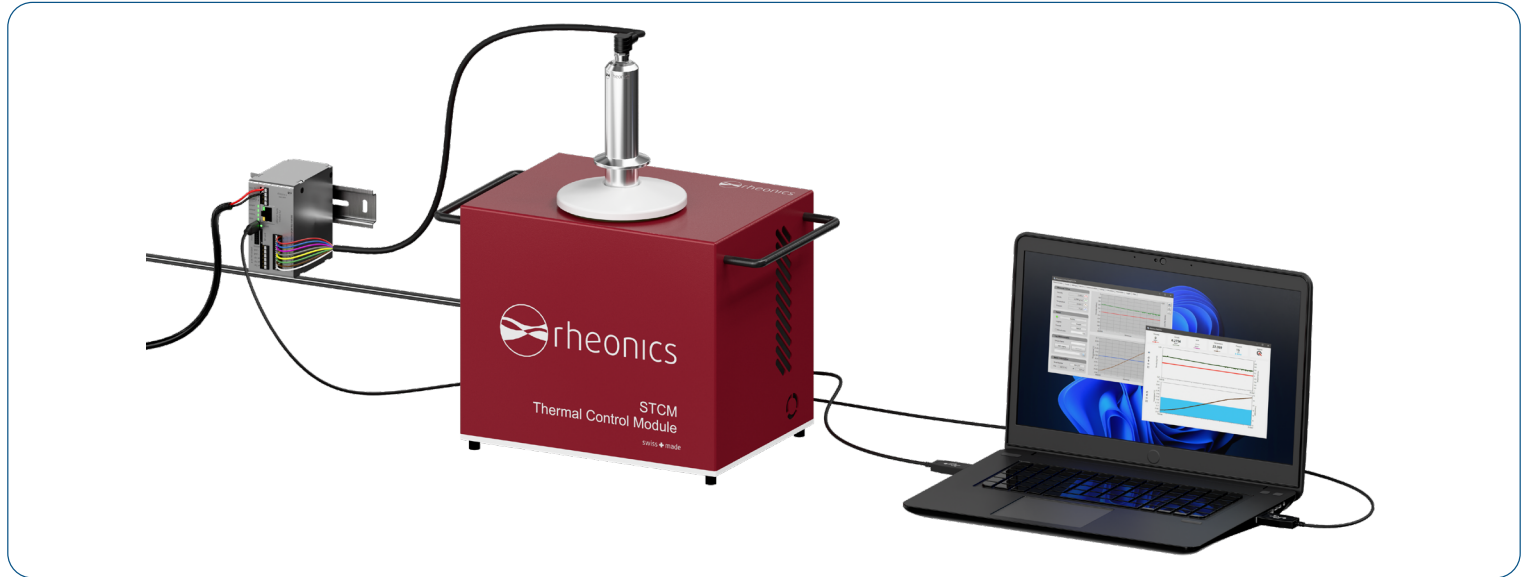
## Sample Fluid Cylinder

The sample fluid cylinder is made of brass to ensure good temperature uniformity, which is crucial for accurate viscosity and density measurements. Every sample fluid cylinder has a unique serial number. There are three different types and the product key of each is part of the serial number.

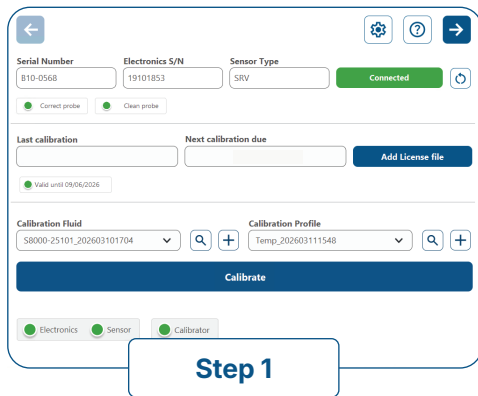


# Rheonics Calibrator Software

The Rheonics Calibrator Software is dedicated software for the Calibrator that guides the operator through the entire process from connecting the sensor and adding the license, calibration fluid data, and calibration profile, through performing the measurement and confirming the results, before automatically generating the calibration certificate.

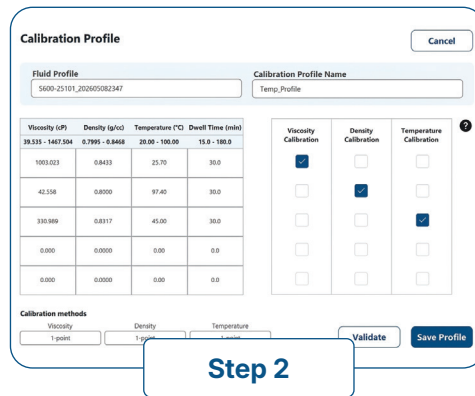


## How to use it



**Step 1**

Connect the sensor and electronics, and enter the necessary information for running the process



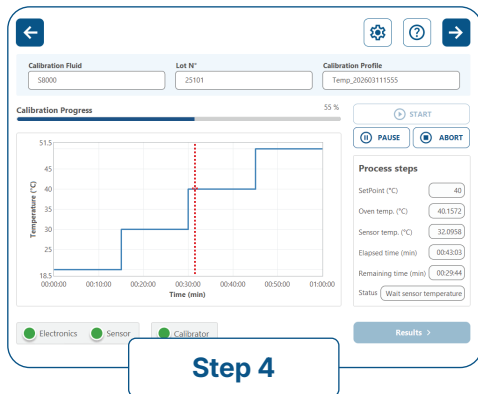
**Step 2**

Decide the calibration points for the temperature, viscosity, and/or density calibration of the SR Sensor



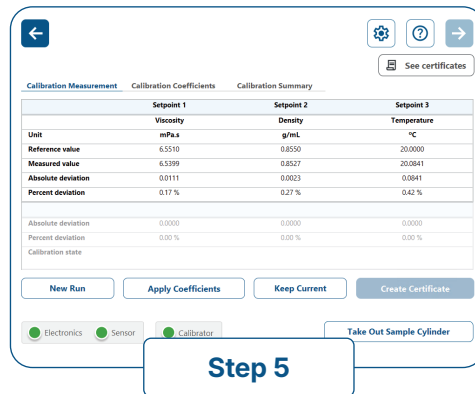
**Step 3**

Prepare the sample fluid cylinder with fluid and insert the SR probe with the sample fluid cylinder in the Calibrator



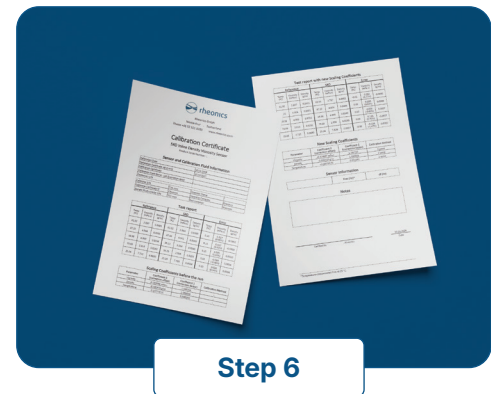
**Step 4**

All entered calibration points are automatically run



**Step 5**

Once the calibration process is finished, the operator can evaluate the results



**Step 6**

A calibration certificate including the testing report is automatically generated and all calibration information is saved on the sensor.



# rheonics

Ready to see how in-field calibration gets done fast and at lab quality?

**Get in touch to learn more about the Rheonics in-field  
Viscosity, Density and Temperature Calibrator.**



<https://rheonics.com/calibrator/>



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