

# OLR Series 1000 OnLine Rheometer



**Brand:**  
**Product Code:** 340-00  
**Availability:** 4

## Description

The OnLine Rheometer (OLR) is designed to continuously measure, plot, and report the rheological properties of drilling, completion, and fracturing fluids in the pipe. The OLR uses a squeezeflow technique; it measures storage and loss moduli by imposing a small cyclic deformation on a liquid sample at a variety of frequencies, from 1-100 Hz. Quality control parameters and user interface are based on  $\eta^*$  (complex viscosity [Pa s]), as measured by the OLR. The response of the liquid is measured and displayed in terms of  $G'$  (storage modulus [Pa]),  $G''$  (loss modulus [Pa]),  $\delta$  (phase angle [Degrees]), and  $n^*$ .

[US Patent 7,054,766 B2](#)

## Features

- Fast and Reliable Real Time Results
- Low Maintenance
- Out of Specification Diagnosis
- Plug-and-Play Installation
- Precise and Robust Sensor System
- Process Control
- Process Monitoring
- Quality Control
- State of the Art Technology
- Time and Cost Savings

## Specifications

- Frequency Range: 1 - 100 Hz
- Viscosity Measurement Range (geometry dependent): 0.25 - 200,000 Pa s
- Force Range: 0 - 44.48 N
- Operating Range:
  - Temperature: 14° - 230°F (-10° - 110°C)
  - Pressure: 0.7 - 145 psi (4.8 - 1,000 kPa)
- Temperature Measurement: RTD PT100 Ohm, Class A
- Size: 11.6" x 18.1" x 23.8" (30 x 46 x 61 cm)
- Weight: 145 lb (65 kg)

## Requirements

- Electrical: 115 - 230 VAC, 50/60 Hz
- Power Input Maximum: 10 W
- Fuses: 5A
- Suitable for 1" to 8" pipe (DN25 - DN200)

## Software (SOLR) Features

- Set-up of process monitoring and quality control parameters
- Monitoring and control of process either through SOLR or through the factory PLC
- Out-of-specification product diagnosis

## Measurement and Output

- Temperature: °C / °F
- Viscosity: Centipoise (cP)
- G' Flow Curve: Pascals vs Hz
- G'' Flow Curve: Pascals vs Hz
- Viscosity Flow Curve: cP vs Hz

Measurement frequencies are user specific, with a minimum time of 3 minutes.