

SPC/L311 QUICK DISCONNECT VISCOMETER

FOR VISCOSITY MEASUREMENTS FROM 0.2 TO 20,000 CENTIPOISE



The model SPC/L311 quick-disconnect sensor is ideal for process applications that require periodic cleaning.

Operating Principle

The Model SPC/L311 is an in-line or tank vessel viscometer that is installed in process fluids to provide continuous temperature and viscosity tracking. Our technology is based on simple and reliable electromagnetic concept. Two coils move the piston back and forth magnetically at a constant force. Proprietary circuitry analyzes the piston's two-way travel time to measure absolute viscosity.

A deflector, positioned over the piston, moves fluid into the measurement chamber. This feature, coupled with the constant piston motion, keeps the sample fresh and mechanically scrubs the chamber. A built-in temperature detector (RTD) senses actual temperature in the measurement chamber.

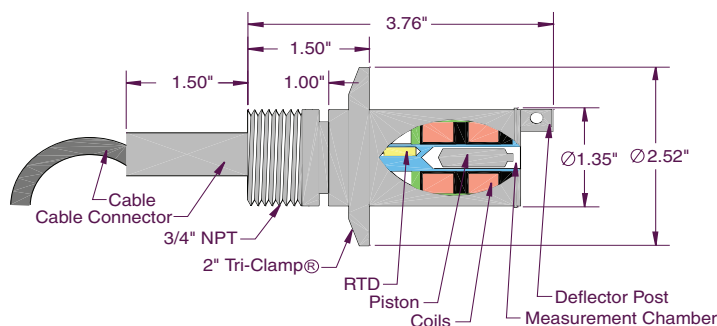
The Model SPC/L311 has a quick connect disconnect Tri-Clover® flange. Typical systems include a tee, Tri-Clamp® and an application specific gasket.

Measurements can be made in 13 different 20:1 viscosity ranges within an overall span of 0.2 to 20,000 cP or the equivalent cSt. Maximum flow rate over the sensor head is 10ft/sec (3 m/sec)

Key Features

- Accurate and reliable
- Rugged stainless steel design
- Easily installed and serviced
- One moving part, no seals
- Proven technology
- Internal temperature probe
- Mates directly to 2" Tri-Clover® (or equivalent) clamp fitting
- Approved for CLASS 1, DIV. 1, GROUP C & D
- Approved for EEx d IIC T2, $-20\text{C} \leq \text{Tamb} \leq 190\text{C}$

Correlates with ASTM D445



Specifications

Viscosity	0.2 to 20,000 centipoise (cP)
Piston Ranges	0.2-2cP, 0.25-5cP, 0.5-10cP, 1-20cP, 2.5-50cP, 5-100cP, 10-200cP, 25-500cP, 50-1,000cP, 100-2,000cP, 250-5,000cP, 500-10,000cP, 1,000-20,000cP
Viscosity Accuracy	±1.0% of full scale w/ViscoPro 2000
Repeatability	±0.8% of Reading
Temperature Sensor	4 wire internal Platinum RTD
Wetted Materials	316L Stainless Steel
Maximum Particle Size	25-360 Microns (Range Dependent)
Max Ambient Temperature	375°F (190°C)
Max Operating Pressure	1,000 psi (70.3 bar)
Standard Cable Length	15 Feet (4.57 meters)
Power	Requires ViscoPro electronics



*NOTE: ALL ATEX SENSORS ARE SPL ONLY (L = hard wired, C = connector)



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