

## Viscosity Sensor M50

### Introduction

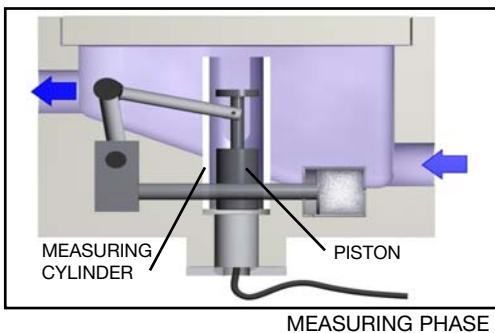
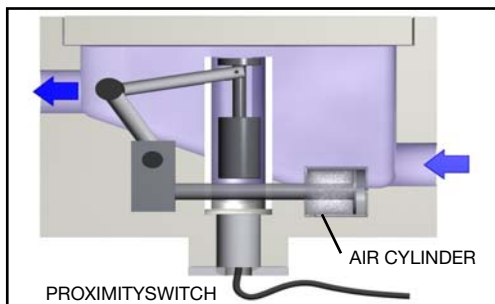


#### WHY THE M50?

- The M50 mounts directly in the ink/coating line. Placement in a side-stream is not necessary.
- Can be used with either solvent or water-based applications, such as printing ink (Flexographic and Rotogravure), glue, and adhesives.
- The falling piston principle of operation provides automatic self cleaning.
- The 'true' in line mounting insures flushing of the sensor whenever the ink fountain is being cleaned.
- The M50 is easy to open for inspection.
- It can be used with any Norcross Viscosity Controller, such as the MP2000, MP2500 or VISC6000.

#### WHAT ARE THE SPECIFICATIONS?

Viscosity Range:	0.1- 2,000 cps
Temperature:	50°F - 150°F (10°C - 65°C)
Electrical:	M50 is Intrinsically Safe. It requires a 4-way 24vdc Air Valve which is available either UL XP (#08612) or CE EEx (#08617).
Operating Flow:	5gpm (20 lpm)
Operating Pressure:	20psi (1.4 bar)
Pneumatic Supply:	40psi (2.5 kg/sq cm) dry air
Wetted Parts:	Delrin, Teflon, Stainless Steel SS303/SS304 and EPDM
Mounting:	Mounting plate can be secured to the sensor for mounting to horizontal or vertical surfaces.
Connection:	The M50 is available with either 3/4"-14 NPT or BSPP connections



#### HOW DOES THE PISTON WORK?

- 1 In the Filling Phase a piston is periodically raised by lifting arms, connected to an air cylinder shaft. When the air cylinder shaft retracts, the piston is lifted along with the arms. The piston thus draws a sample of the fluid, to be measured, into the space inside the measuring cylinder under the piston.
- 2 In the Measuring Phase the air cylinder shaft is extended and thus the arms are lowered. The piston is then allowed to fall by gravity. The fluid is expelled through the same path that it entered. The 'Piston Time-Of-Fall' is directly proportional to viscosity.
- 3 NORCROSS Controllers automatically measure this 'Piston Time-of-Fall', continuously cycle the sensor (typically 2x/min) and indicate and/or control the viscosity.

**PATENTED** The M50 Sensor has been patented in the USA. Foreign patents pending.