



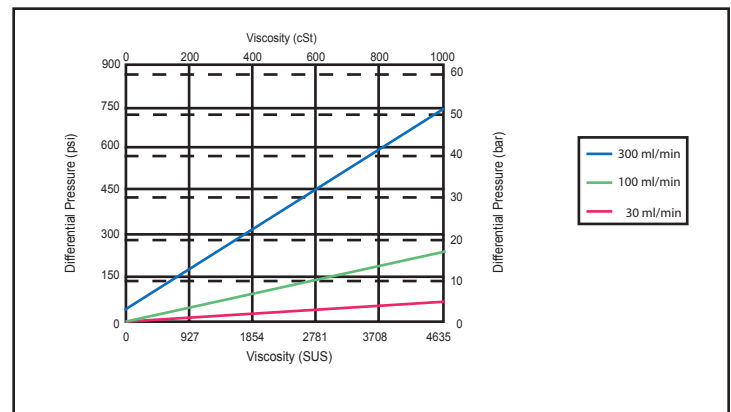
TestMate[®] Contamination Monitor

**Optically measures solid particle contamination
in hydraulic and lubricating fluids**

The Schroeder TestMate Contamination Monitor (TCM) is among the newest generation of particle monitors that continuously measure solid contamination in fluid. Enclosed in a 4 inch diameter case, the TCM utilizes an optical sensor and measures particles in four sizes: >4, >6, >14 and >21 microns. Measurement results can be output as a contamination code according to ISO 4406 : 1999 or SAE AS 4059 (D).

The TCM is designed for connection to hydraulic and lubrication lines with pressures up to 1450 psi (100 bar) and viscosities up to 4635 SUS (100 cSt). A small flow of oil (between 30 ml/min and 300 ml/min) is diverted for measurement purposes.

The TCM provides the user with a smaller, tougher and more versatile stationary sensor. It provides instantaneous readings and is able to self-diagnose continuously with error vindication via the status LED.



features

- Measures Particles In Four Sizes:
>4, >6, >14, >21 microns
- Can be installed in any orientation
- Pipe or Wall mounting
- Compatible with standard mineral fluids and phosphate esters
- Analog or Digital Interfaces
- Display and keypad can be rotated
- Inlet and Outlet ports are interchangeable (bi-directional)

TestMate® Contamination Monitor Specifications

Measuring Range:	Display up to ISO 28/27/26 Calibration within the range ISO 13/11/10 to 23/21/18
Self-Diagnosis:	Continuously with error indication via status LED
Inlet	1450 psi (100 bar) max. <i>6525 psi (450 bar)- available June 2006</i>
Outlet	1450 psi (100 bar) max.
Connections	Inlet ISO 228 G1/4 Threaded Outlet ISO 228 G1/4 Threaded
Sensor Flow Rate	30 to 300 ml/min
Permissible Viscosity Range	0 to 4635 SUS (1 to 100 cSt)
Fluid Temperature Range	32° to 185° F (0° to +85° C)
Power Supply Voltage	9 to 36 VDC residual ripple <10%
Power Consumption	3 WATT max.
Electrical Outputs	4 to 20mA Analog <i>0 to 10V Analog- available June 2006</i>
Electrical Specifications	4 to 20 mA Analog output (max. burden 300Ω) 0 to 10 V output (min. load resistor 820Ω) Limit switching output (Power MOSFET): max. current 1.5A
Ambient Temperature Range	-22° to 176° F (-30° to +80° C)
Storage Temperature Range	-40° to 176° F (-40° to +80° C)
Relative Humidity	max. 95%, non-condensing
Seal Material	Mineral Oil: FPM Phosphate Ester: EPDM
Electrical Safety Class	III (low voltage protection)
IP Class	IP67
Weight	2.9 lbs (1.3 kg)

All models feature an analog electrical output and an RS485 interface for outputting the measured contamination levels. Additionally, an electronic switching output can be configured to alert the operator about rising or falling contamination levels.

Model Number Selection

Model	Display	Fluid	Output
TCM	D= display X= no display	H = Hydraulic Fluids E = Phosphate Esters	A = 4-20 mA V = 0-10 V (available June 2006)

Example: TCM-D-H-A