FCM-EN Data Sheet

FCM Fluid Cleanliness Monitor

The FCM is a low-pressure fluid cleanliness monitor and has been developed to provide accurate and continuous information on the cleanliness of aqueous solutions, hydraulic fluids and circulatory lubrication system fluids. Fluid cleanliness data is converted to the widely used industry cleanliness codes: ISO4406, SAE AS4059G table 1 (NAS 1638), SAE AS4059G table 2 and GOST 17216-2001.
The result data is stored in memory and can be exported to USB Flash Drive, Printer, PC, PLC or network device.

The self-contained portable unit can be used with a wide range of fluids:

- Monitor cleanliness levels in mineral, synthetic, or water-based fluids. Results are unaffected by the presence of water *, air *, or dark fluids
- Acquire accurate, 3-part ISO 4406 cleanliness code results (4µm; 6µm; 14µm) in under 5 minutes.
- Protect systems from catastrophic failure by detecting abnormal fluid cleanliness conditions quickly

The FCM can be permanently installed to monitor critical applications (including component test facilities) or used as a portable device for cleanliness monitoring of various fluid systems

* Water glycols; Emulsions; Water wash systems (FCM special):
* air; no foaming: recommend de-gassing for high concentrations.

Features:

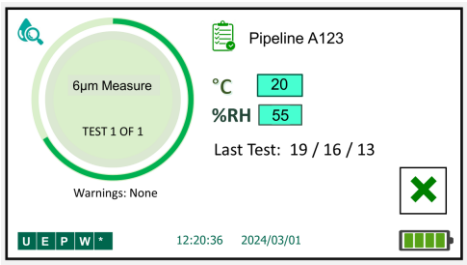
- Proven mesh blockage technology provides accurate
- Compact, robust, fully self-contained portable design.
- Simple to use, colour touch screen interface.
- Long battery life.
- Measurement of fluid cleanliness, temperature, viscosity, and optional water content.

Operation:

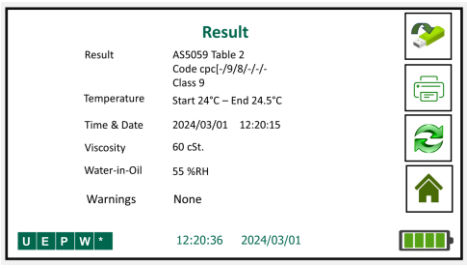
The colour LCD touch screen allows simple menu driven input of sample identification, configuration and data output.
Real time data is displayed, and test results are automatically stored for sample records. An optional Bluetooth connected printer allows the operator to produce a hard copy of the test results.
New battery capacity provides a minimum of 25 continuous tests between charges. (An external low power source is provided for battery charging and operation on AC power if preferred).
The FCM is supplied with a robust transit case.

Specifications:

- External Low Power Source: 48VDC (90-260 VAC); Internal 12 VDC Lithium-Ion battery.
- Battery life: Typically, 25 samples
- Temperature Range: (dependent on fluid type): 5 °C to 80 °C (41 °F to 176 °F)
- Compatibility: Water glycols, aqueous solutions. Petroleum and synthetic oils (hydraulic lubricating, dielectric, etc.), fuels, industrial phosphate esters.
- Seals: Fluorocarbon
- Viscosity Operating 1.5 to 450 cSt (30 to 2,200 SUS)
- Pressure: 0 to 1 bar max
- Monitoring range: ISO 4406: <11/9/7 to 23/21/17
- SAE AS 4059G Table 1 Class 1 to 12 (derived from NAS 1638)
- SAE AS 4059G Table 2 >4 µm 1A to 12A, >6 µm 1B to 12B >14 µm 1C to 12C
- Humidity % RH: ±2% at 5 to 95% RH (FCM-H)
- Accuracy: ±1/2 ISO 4406 Code
- Communication: 2 x USB (Download Results, Printer, WiFi); 1 x USB (PLC Control); Ethernet (Remote Control)
- Hose Fittings: M10 x 1
- Enclosure: IP 65 (NEMA 4)
- Weight: 9 kg (20 lb)
- Dimensions: 350 x 280 x 280 mm
- (14x 11 x 11 inches)



Real time data is displayed during test to show progress



Multiple test data can be stored and displayed for subsequent analysis and download

Part Ordering
Standard Monitor:
FCM

With Humidity Sensor:
FCM-H

Optional Printer Kit

MT Mechanical & Electrical Services Ltd.
119, Havant Road, Drayton, Portsmouth
Hants PO6 2AH
Tel: 07955 269984
E-mail: matt@mtmechelec.co.uk
Website: mtmechelec.co.uk