

Condition Monitoring

CSM 02 Multi-analysis System for Hydraulic and Lubrication Fluids

The CSM 02 multi-analysis system from Eaton monitors the hydraulic and lubrication systems' fluids by determining the solid contamination and optional water saturation, temperature, viscosity and relative dielectricity. It can be used in stationary and mobile operations and operates in an off-line cycle independent from the system being measured.

Features

- Optical particle counting with laser sensor determines contamination classes
- Upgrade with additional sensor modules to measure critical fluid parameters like water saturation, temperature, viscosity and relative dielectric constant
- Ideal for analyzing foamed oils, e.g., in large gear boxes, test and flushing stands
- Effective measurement system for verification of compliance of normative, commissioning, maintenance and quality control of hydraulic and lubrication systems for various industry fields
- Measurement results are displayed on a touch panel
- Optional remote control via RJ45 interface (internet and intranet)
- Data transfer via RS 232 interface (optional with thermal printer)
- Programmable alarm signals with switching contact and email alerts when limit values are exceeded
- Internal storage of measurement results (20 x 250 measured values)
- Applicable for mineral-oil based hydraulic and lubrication oils as well as natural (HETG) and synthetic esters (HEES)



Technical Data

Options for power supply:	230 VAC/50 Hz/1.3 A/300 W or 110 VAC/60 Hz/2.6 A/300 W
Protection class:	IP 54
Operating suction range:	-2.9 to 2.98 psi (-0.4 to 0.5 bar)
Operating pressure range (optional):	≤ 508 psi (35 bar)
Viscosity:	46.35 to 4,635 SUS (10 to 1.000 mm ² /s)
Fluid temperature:	32 to 158 °F (0 to 70 °C)
Ambient temperature:	32 to 122 °F (0 to 50 °C)
Weight:	72.8 lbs (33 kg)

Measurement Parameters

Automatic particle counting in 3 channels:	≥ 4,0 μm _(c) , ≥ 6,0 μm _(c) , ≥ 14 μm _(c)
Contamination class:	ISO 4406:99
Laser sensor calibration:	ISO MTD in oil (ISO 111171:2000)
Accuracy:	± 1 (contamination class)
Water saturation (optional):	0 to 100%
Temperature (optional):	-40 to 266 °F (-40 to 130 °C) (IVS 01 Sensor) or -13 to 212 °F (-25 to 100 °C) (WSPS 05 Sensor)
Dynamic viscosity (optional):	5 to 1,000 mPas
Relative dielectric constant (optional):	1 to 10

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For more information, please e-mail us at filtration@eaton.com or visit us online at eaton.com/filtration for a complete list of Eaton's filtration products.

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