

# CONDITION MONITORING

## Contamination Monitoring Sensor 2

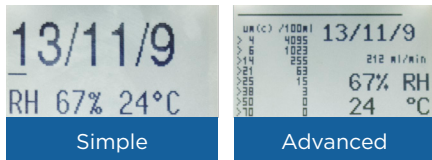
### *In-line particle Monitor*

The CMS 2 in-line particle monitor automatically measures and displays particulate contamination, moisture and temperature levels in various hydraulic fluids. It is designed specifically to be mounted directly to systems, where ongoing measurement or analysis is required, and where space and costs are limited.



# Overview

The CMS 2 in-line particle monitor automatically measures and displays particulate contamination, moisture and temperature levels in various hydraulic fluids. It is designed specifically to be mounted directly to systems, where ongoing measurement or analysis is required, and where space and costs are limited.



## DISPLAY OPTIONS

Simple and advanced display options for full particle count



## USB CONNECTION

Download the results directly to an USB storage



## INDICATORS & ALARMS

Multi- colour display and light for alarm outputs



## DUAL CONNECTIONS

Download the results during the operations

# Benefits

- 1 8 channels for accurate measurements
- 2 Measures and displays in 4 international standards
- 3 Easy data access via internal data storage, USB storage or included software

# Related Products

## CMS-FC1

A pressure compensated flow control valve specifically designed to fit the CMS. This may be needed if the application produces an oil flow greater than 400ml/min. The CMS-FC1 is supplied with adaptors which enable the valve to be fitted to the CMS. The valve outlet port has a M16x2 Test Point installed as a standard option.

## CMS-RDU

The CMS-RDU is a separate product that is used to remotely monitor or control an CMS when the CMS is out of reach in a location unsuitable for viewing.

## CMS “USBi” CONVERTER

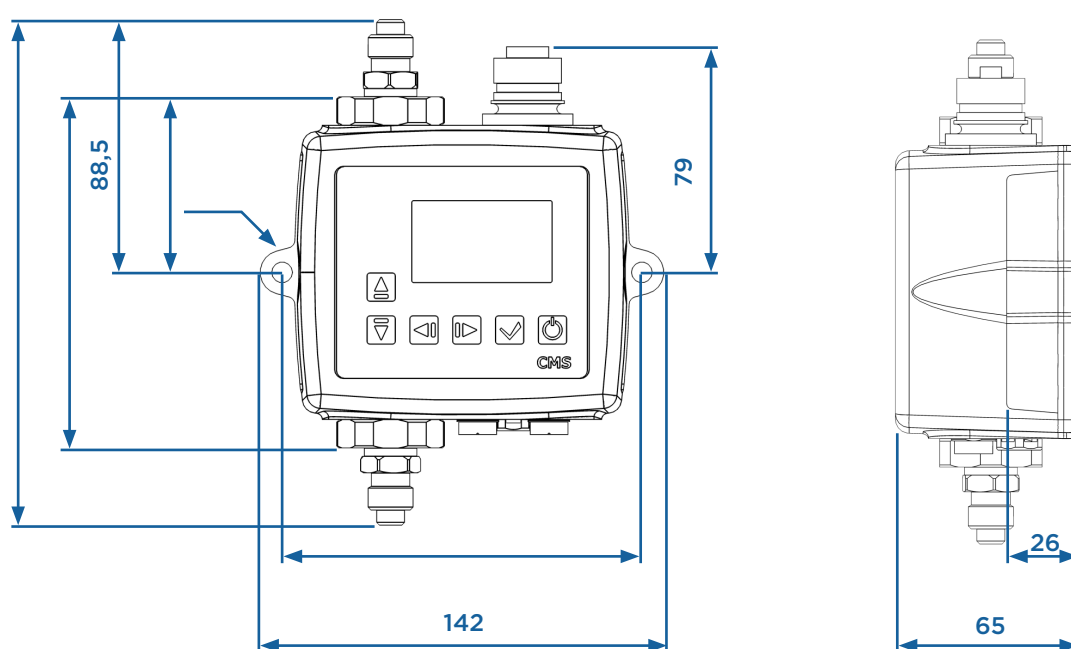
The USBi is a plug & play solution for connecting a CMS to a PC/Laptop. It comprises of a USB:RS485 interface, external power supply connection, USB connection and prewired CMS connection cable. This provides the flexibility of operating the CMS in multiple conditions and downloading data directly to your PC/Laptop.



# Specifications & Dimensions

PRODUCT DETAILS	
Formats	ISO 4406:1999, NAS 1638, ES4059E Table 2, AS4059E Table 1, ISO 11218
Accuracy	± 1/2 code for 4, 6, 14 µm (c), ± 1 code for larger sizes
Calibration	Each unit individually calibrated with ISO Medium Test Dust (MTD) based on ISO 11171 (1999) on equipment certified by IFTS.
Hydraulic fluid compatibility	Mineral oil & petroleum based fluids (consult RMF Systems for other fluids)
Flow rate	20-400 ml/minute
Viscosity range	max. 1000 cSt
Fluid temperature	-25° C to +80° C
Maximum working pressure	420 bar
Electrical supply	Voltage 9 - 36V DC
Seal material	FPM (Viton) Contact RMF Systems regarding any fluids that are incompatible with FPM seals
Test time	Adjustable 10 - 3600 seconds, factory set to 120 seconds
Moisture sensing	% RH (Relative Humidity) ±3%
Temperature measurement	±3 °C
Flow rate measurement	Indication only
Data storage	4000 tests
Communication options	RS 485, MODBUS, CANBUS, 4-20 mA
Ambient temperature	-25° C -to +80° C or -25° C to +55° C for K version
IP rating	IP 65/67 versatile IK04 Impact protection
Physical dimensions	123(H) x 142(W) x 65(D) mm
Weight	1,15 kg

## DIMENSIONS



# To Order:

## CONTAMINATION MONITORING SENSOR 2

<b>CMS</b>							-	2
<b>Basic Configuration</b> CMS - Contamination Monitoring Sensor								
<b>Sensor Option</b> W - Moisture sensor option O - No sensor option								
<b>Fluid Compatibility</b> M - Mineral fluid N - Offshore and selected water based fluids S - Phosphate ester and aggressive fluids								
<b>Keyboard and Display</b> K - Keypad & Display O - No Keypad & Display								
<b>Relays</b> R - Two fully customisable relay outputs to set limits for the test results and multi color LED indicators U - test record transfer (direct to USB stick) plus relays/external alarm outputs								
<b>Port Options</b> G1 - test point M16x2 (standard) G2 - 1/8" BSP G3 - 1/4" BSP								
<b>Extra Options</b> FC1 - Flow control valve assembled AZ2 - ATEX ZONE II CE II 3G Ex nR IIB T6 x - - No options								
<b>New Series</b> 2 - CMS 2								
<b>Related Products</b> CMS-USBi - CMS to PC USB converter CMS-RDU2 - CMS remote display unit with keypad								

**EXAMPLE**

CMS	W	M	K	R	G1	-	2
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