

**ANY SYSTEM  
ANY TIME  
ANYWHERE**

**COMPACT PORTABLE  
CONTAMINATION  
MONITOR**

**CML4**



**Hubame**

Distribuidor autorizado

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# CML4

A compact and portable contamination monitor that delivers a fast, accurate assessment of contamination in the field and is the perfect solution for the mobile, construction and plant hire sectors.

Easy to master, the new CML4 features cutting-edge contamination control technology to anyone wishing to protect their critical systems.

The CML4 features a metering pump which enables analysis of both 'live' and unpressurised systems, delivering comprehensive contamination checks on any machine in any condition.

## FIVE KEY REASONS

### CML4

WILL TRANSFORM  
YOUR CONTAMINATION  
CONTROL STRATEGY



#### PORTABILITY

Compact and light.  
Work all day on a single battery charge.



#### SIMPLICITY

Straightforward enough for anyone to use.  
On-screen prompts - no formal training required.



#### INTUITIVE

Full colour touchscreen interface.  
Simple software for sophisticated results.



#### FLEXIBILITY

Measures pressurised and unpressurised systems.



#### ACCURACY

LED technology.  
 $\pm 1/2$  code for 4, 6, 14 $\mu\text{m}_{(c)}$ .  $\pm 1$  code for larger sizes.

Simple and intuitive  
Easy to master with no need for a laptop.

Made tough  
Durable  
co-polymer case.

Long-life battery  
Work all day on  
a single charge.

Instant results  
On screen and  
downloadable via USB.



**Measure anywhere, any time!**  
The built-in pump enables operators to work on both pressurised and unpressurised systems.  
Oil can be tested from samples, tanks, or system test points.

**Integrated pump**  
For testing unpressurised oil samples.

**High Pressure Sampling**  
Up to 420 bar / 6091 PSI.

**Memory capacity**  
Store up to 4000 results.

**Connectivity**  
Integrated USB C port.

**High-resolution**  
7" full-colour touchscreen.

**As tough as you need**  
IP65 rating for enhanced protection.

**Bluetooth-enabled**  
Optional printer accessory available.

**Compact and portable**  
Easy to store and carry at just 14" (35cm) wide.

LTRI®

CML4

406

15/14

(c)	/100ml
-4	101919
-6	31293
-4	9540
-1	3808
-5	1396
-8	173
-0	91
-0	15



43 %RH  
60 °C

ONLINE

WASTE

2-350 Bar

Manual Flush

CML4

# EASY AS 1-2-3

Using the CML4 is as easy as 1-2-3 with just three stages required to take you from connecting up your portable contamination monitor to the oil sample and then accessing real-time results through to long-term trend analysis and proactive maintenance.



# 1



Suction connection and waste outlet in use

## CONNECT YOUR OIL / HYDRAULIC FLUIDS

The first step is simply to connect the CML4 to an Online M16 test point (pressure range 2-420 bar / 29-6091 psi) or to the applications reservoir (zero pressure). The CML4 features a self-priming metering pump which enables analysis of unpressurised systems. Easy-fit standard hydraulic connections maintain high environmental protection ratings.

## EASY TO USE INTERFACE



Simple yet sophisticated software with a highly-responsive touch-screen, designed to deliver bright visuals for outside working in sunny conditions, and an intuitive home screen enabling you to view all your key performance information at a glance.

The CML4 can be mastered without the need for formal training and enables operators to begin measuring the condition of hydraulic oils in a matter of minutes.

The 7" high-resolution touchscreen display delivers fast, accurate results in a wide variety of reporting standards. You can also set languages, alarms and tolerance limits at the tap of the screen.

### Electrics

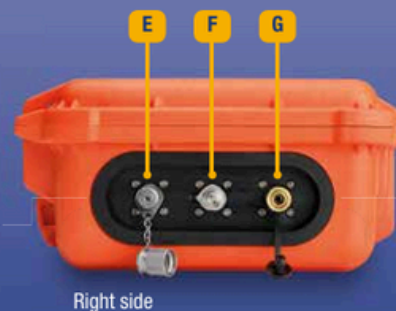
- A: USB data stick download port
- B: USB C PC connection port
- C: DC charging port
- D: Power on/off

### Hydraulics

- E: Pressure connection port
- F: Suction connection port
- G: Waste outlet



Left side



Right side



## HAND-HELD BLUETOOTH PRINTER

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### ACCESS REAL-TIME ONBOARD RESULTS

The CML4 shows real time results on its high-resolution display. Designed for simplicity the software allows new users to get up and running in minutes without the need for formal training.



Should you need to output a physical analysis report there is an option to use this hand-held printer as part of the analysis process for instant hard copy results.

This lightweight and compact unit (just 185 x 120 x 50mm) can be easily connected to the CML4 via Bluetooth. It offers high-speed, low-noise, black and white printing using thermal printing technology with a print width of 48mm onto a 15mm core paper roll. This portable printer comes equipped with a large capacity rechargeable lithium battery to guarantee power for extended working in the field.



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### CONNECT TO CMP VIEW FOR TREND ANALYSIS

Results can be downloaded onto a USB Data Stick and transferred to a PC, or you can connect directly to the computer via a USB C connection. CMP View software enables operators to analyse data over time, opening up the potential for long-term trend monitoring and preventative monitoring strategies.

Created in-house especially for MP Filtri's range of contamination monitors, the award-winning CMP View is the most advanced software of its type in the industry.

Results and analysis can be viewed at-a-glance on a single screen in a variety of different graphical formats, tracking not just trends in particle contamination but also relative humidity, as well as temperature levels.



Compatible with  
CMP View

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# THE PERFECT PORTABLE CONTAMINATION MONITOR

Rugged and robust, the CML4 thrives in the most challenging working conditions.

Compact and portable, it's ideal in the field, while a long-life battery enables the operator to work all day without the need for recharging.

## Effective hydraulic healthcheck

Quickly identify levels of contamination in systems, the CML4 is an ideal tool for operators who need to ensure their hydraulic systems are always functional.

## Any system, anytime, anywhere

The inclusion of an in-built, self-priming pump means it can analyse particle contamination in both pressurised and unpressurised systems, making it an ideal tool for service engineers.

## Boosting your business

Featuring predictive maintenance technology, the CML4 flags up potential problems before they impact on performance. This delivers such key benefits to your business as: reduced downtime, lower operating and service costs, and longer lifespans of machinery.

## KEY INDUSTRY SECTORS



### Mobile

Portable and precise, the CML4 is ideal for applications where accuracy is vital even in challenging and variable conditions.



### Construction

Keeps your fleet and key operational machines at peak performance without the risk of unplanned downtime.



### Industrial

Keeps production lines working at full capacity – ensuring the best in performance and productivity.



Technology	High precision LED light extinction automatic optical contamination monitor
Particle Sizing	>4, >6, >14, >21, >25, >38, >50, >70 $\mu\text{m}_{(c)}$
Reporting Standards	ISO 4406, ISO 11218 NAS 1638 AS4059 Rev G, Table 1 AS4059 Rev G, Table 2 GBT 14039 GJB 420 B GOST 17216
Accuracy	$\pm 1/2$ code for 4, 6, 14 $\mu\text{m}_{(c)}$ $\pm 1$ code for larger sizes
Calibration	Calibrated with ISOMTD in accordance with ISO 21018 - Part 1 and Part 4
Viscosity Range	Up to 400 cSt
Fluid Temperature	<b>Minimum:</b> +5°C / +41°F <b>Maximum:</b> +80°C / +176°F
Ambient Temperature	<b>Minimum:</b> -10°C / +14°F <b>Maximum:</b> +60°C / +140°F
Operating Pressure	<b>Offline:</b> Maximum 2 bar / 29 PSI <b>Online:</b> Maximum 420 bar / 6092 PSI
Moisture Sensing	% RH (Relative Humidity) $\pm 3\%$
Temperature Measurement	$\pm 3\%$
Data Storage	Up to 4000 tests
Environmental Protection	<b>IP65</b> (Lid closed) <b>IP54</b> (Lid open)
Power	Lithium-Ion rechargeable battery
Battery Life	8 hrs approx
Weight (unit only)	8.5 kg / 18.7 lbs
Product Dimensions	<b>Width:</b> 352 mm / 13.8" <b>Height:</b> 149 mm / 5.8" (not including handle) <b>Depth:</b> 297 mm / 11.7"



## Renewable energy

Minimises unplanned downtime, dramatically reducing operational and maintenance costs.



## Plant hire

Delivers peace of mind after servicing and after the vehicle is rented to customers.



## Injection moulding

Ideal for precision tooling, injection moulding, presses and power packs - supports a wide range of industries.