

LPA2 – Twin Laser Particle Analyser

LPA2

The LPA2 is a highly precise, lightweight & fully portable instrument suitable for on-site and laboratory applications.

It can automatically measure and display particulate contamination, moisture and temperature levels in various hydraulic fluids.

Features & Benefits

- ◆ Lightweight (Lightest in class)
- ◆ Fully portable
- ◆ Precision Instrument
- ◆ Full Calibration based on ISO11171
- ◆ Measures and displays the following international standard formats; ISO 4406, NAS 1638, AS 4059E and ISO 11218
- ◆ Moisture and temperature sensing
- ◆ Data logging and 600 test result memory
- ◆ Manual and remote control flexibility
- ◆ LPA View software (included)
- ◆ Full size QWERTY keyboard
- ◆ Various test programme settings
- ◆ Full accessories kit included
- ◆ Internal rechargeable battery capable of performing 100 tests between charges



Technical data

Technology	Twin laser and twin optical diode detectors Based Light Extinction Automatic Optical Particle Analyser
Particle Sizing	>4,6,14,21,25,38,50,70 µm(c) to ISO 4406 Standard
Analysis range	ISO 4406 Code 8 to 24, NAS 1638 Class 2 to 12, AS4059 Rev.E. Table 1 Size Codes 2-12 AS4059 rev E, Table 2 Size Codes, A:000 to 12, B:00 to 12, C:00 to 12, D:2 to 12, E: 4 to 12,F: 7 to 12
Accuracy	Better than 3% typical
Calibration	Each unit individually calibrated with ISO Medium Test Dust (MTD) based on ISO 11171, on equipment certified by I.F.T.S. To ISO 11943
Viscosity range	Up to 400 cst
Fluid temperature	From +5 °C to +80 °C
Pressure Max	400 bar (gauge) - minimum 2 bar (gauge) required
Sample Volume/Test time	8 ml. (short): 2:50, 15 ml. (normal): 5:00, 30 ml. (dynamic): 10:00 24 ml. (bottle sampler): 8:00, 15 ml. (continuous): 5:00
Moisture Sensing	% RH (Relative Humidity) ±3%
Temperature Measurement	±3 °C
Data Storage	600 test
Communication options	RS232 9 pin D plug
Ambient Temperature min/max	-10 °C to +80 °C
Environmental Protection	IP51 (lid open)
Weight /Dimensions	7.6 kg, Height 210mm, Depth 260mm, Width 430mm
Electrical Supply	Voltage 9-36V DC
Power	Internal rechargeable battery (mains charger)
Outer Casing Finish	Anodised Aluminium

Patent app. no. 2354067

Indynamica
drive and control products

LPA2 is supplied with a full software package

LPA2 – Twin Laser Particle Analyser

Exclusive MP Filtri technology. The combination of the two lasers with the unique optics and photodiode package enables the LPA2 to give increased accuracy combined with excellent repeatability.

W-Option

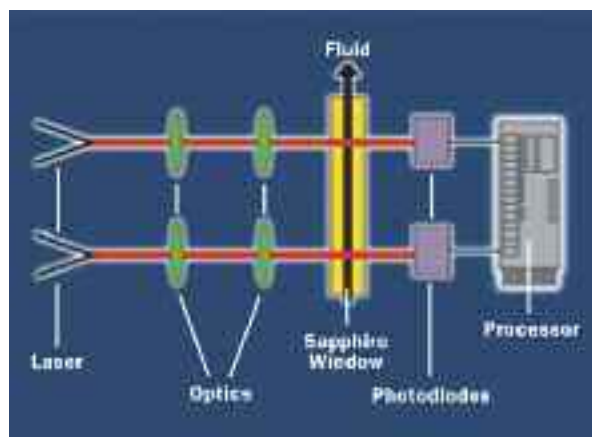
Water Saturation level (RH%) and fluid temperature sensor option.

Laser 1

A single point high accuracy laser measures particles of contamination at 4 µm(c) and 6 µm(c) giving increased accuracy with excellent repeatability.

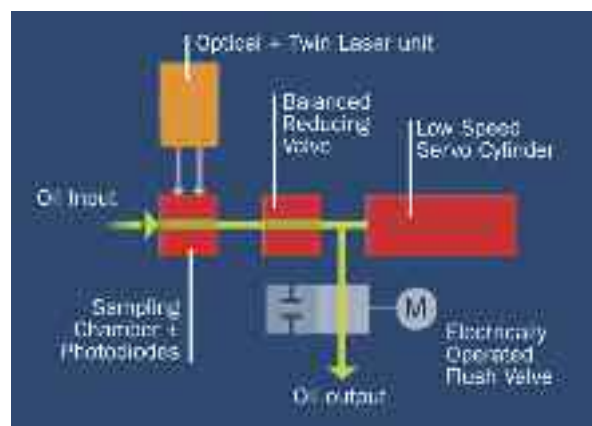
Laser 2

Standard accuracy laser specifically designed for system contaminants between 6 µm(c) and 70 µm(c).



Optional Products	
Carry Bag	CB0001
In line Coarse Screen filter	SK0040
USB to serial port connector	SK0026

The LPA2 Standard Analyser Includes accessories package: LPA-View software, hoses, waste bottle, printer paper, 12V, 2A power adapter with UK/EU/US/CN/AUS adapter heads.



Ordering information

Example: **1** **LPA2** **2** **M** **3** **S** **4** **X** **5** **30**

1 - Version

LPA2	Without moisture and temp sensor
LPA2W	With moisture and temp sensor

2 - Fluid compatibility

M	Mineral oil
N	Subsea fluids and water based fluids ⁽¹⁾
S	Phosphate ester and aggressive fluids ⁽¹⁾

3 - Options carry bag

S	Standard unit with carry bag
----------	------------------------------

4 - Bottle sampling options

X	Without bottle sampling
----------	-------------------------

5 - Design Ref.

30

⁽¹⁾ **N** and **S** version, moisture sensor (W) not available

CML2 – Compact Twin Laser Contamination Monitor

CML2

The CML is a portable, accurate instrument-suitable for 'on-site' applications. It can automatically measure and display particulate contamination, moisture and temperature levels in various hydraulic fluids.

Features & Benefits

- ◆ Compact
- ◆ Super lightweight
- ◆ Mains Operated/battery (if fitted)
- ◆ Full Calibration based on ISO11171
- ◆ Measures and displays the following international standard formats; ISO 4406, NAS 1638, AS 4059E and ISO 11218
- ◆ Data logging and 600 test result memory
- ◆ Manual and remote control flexibility
- ◆ Full accessories kit included



Technical data

Technology	Twin laser and twin optical diode detectors Based Light Extinction Automatic Optical Contamination Monitor
Particle Sizing	>4,6,14,21,25,38,50,70 µm(c) to ISO 4406 Standard
Analysis range	ISO 4406 Code 8 to 24, NAS 1638 Class 2 to 12, AS4059 Rev.E. Table 1 Size Codes 2-12 AS4059 rev E, Table 2 Size Codes, A:000 to 12, B:00 to 12, C:00 to 12, D:2 to 12, E: 4 to 12,F: 7 to 12
Accuracy	Better than 3% typical
Calibration	Each unit individually calibrated with ISO Medium Test Dust (MTD) based on ISO 11171, on equipment certified by I.F.T.S. To ISO 11943
Viscosity range	Up to 400 cst
Fluid temperature	From +5°C to +80°C
Pressure Max	400 bar (gauge) - minimum 2 bar (gauge) required
Sample Volume/Test time	8 ml. (short): 2:50, 15 ml. (normal): 5:00, 30 ml. (dynamic): 10:00 24 ml. (bottle sampler): 8:00, 15 ml. (continuous): 5:00
Moisture Sensing	% RH (Relative Humidity) ±3%
Temperature Measurement	±3°C
Data Storage	600 test
Communication options	RS232 9 pin D plug
Ambient Temperature min/max	-10°C to +60°C
Environmental Protection	IP51 (lid open)
Weight /Dimensions	4.75 kg, Height 152 mm., Depth 295 mm., Width 340 mm.
Electrical Supply	Voltage 9-36V DC
Power	Internal rechargeable battery (series 41) or external 12V DC power supply (series 40)
Outer Casing Finish	Injection Molded HPX® high performance resin

Ordering information

Example: 1 2 3 4 5
CML2 M S X 41

1 - Version

CML2	Without moisture and temp sensor
CML2W	With moisture and temp sensor

2 - Fluid compatibility

M	Mineral oil
N	Subsea fluids and water based fluids ⁽¹⁾
S	Phosphate ester and aggressive fluids ⁽¹⁾

3 - Options

S	Standard unit
----------	---------------

4 - Options bottle sampler

X	Without bottle sampling
----------	-------------------------

5 - Series

41	With display and push buttons, with internal rechargeable battery
-----------	---

ICM – Inline Contamination Monitor



ICM

The ICM 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.

Features & Benefits

- ◆ 8 channel contamination measurement & display
- ◆ Measures and displays the following international standard formats; ISO 4406, NAS 1638, AS 4059E and ISO 11218
- ◆ Moisture and temperature sensing fluid dependant
- ◆ Data logging and 4000 test result memory
- ◆ Manual, automatic and remote control flexibility available
- ◆ Multicolour LED and remote alarm signals (R version)
- ◆ Robust die cast aluminium construction
- ◆ LPA View software (included)
- ◆ Pressure max. 400 bar
- ◆ Environmental protection IP 65/67

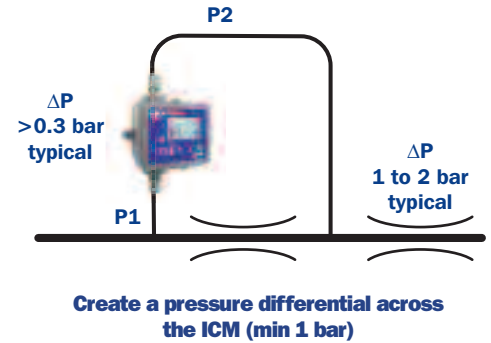
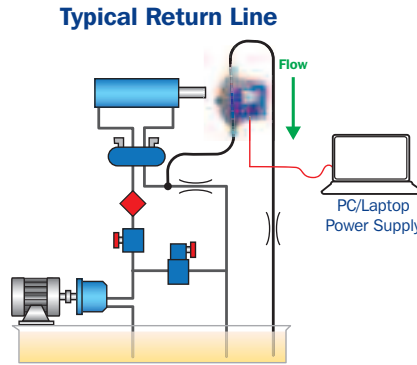
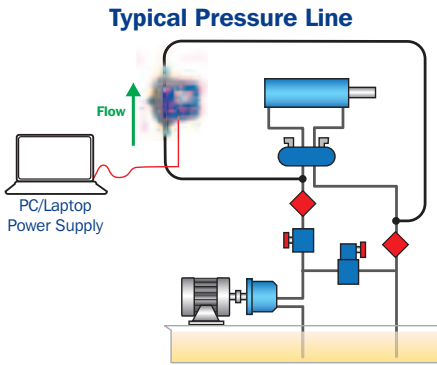


Technical data

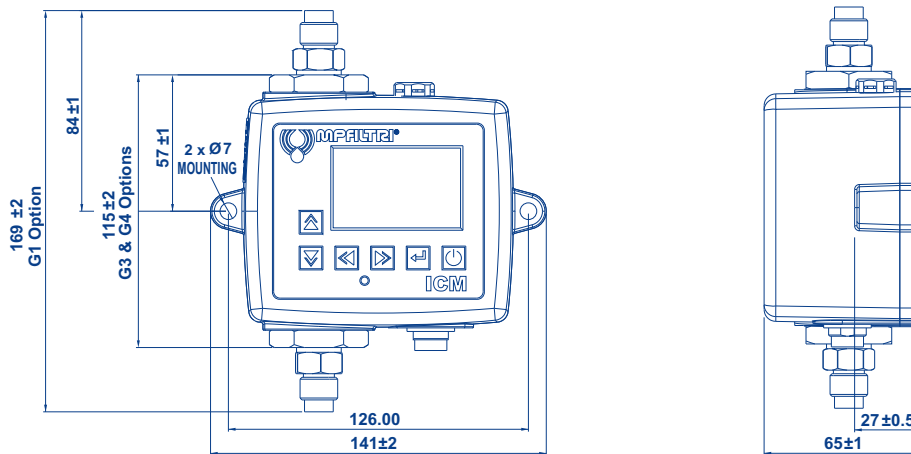
Technology	LED Based Light Extinction Automatic Optical Contamination Monitor
Particle Sizing	>4,6,14,21,25,38,50,70 $\mu\text{m(c)}$ to ISO 4406 Standard
Analysis range	ISO 4406 Code 0 to 25, NAS 1638 Class 00 to 12, AS4059 Rev.E. Table 1&2 Sizes A-F: 000 to 12 ISO 11218 00-12 (Lower Limits are Test Time dependent)
Accuracy	$\pm \frac{1}{2}$ code for 4,6,14 $\mu\text{m(c)}$ ± 1 code for larger sizes
Calibration	Each unit individually calibrated with ISO Medium Test Dust (MTD) based on ISO 11171, on equipment certified by I.F.T.S. ISO 11943
Operating Flow Rate	20 - 400 ml/minute
Viscosity range	≤ 1000 cSt
Fluid temperature	From +25 °C to +80 °C (For high frequency pressure pulse and out range temperature applications contact MP Filtri)
Pressure Max	400 bar (For high frequency pressure pulse and out range temperature applications contact MP Filtri)
Test Time	Adjustable 10 - 3600 seconds. Factory set to 120 seconds. Start delay & programmable test intervals available as standard
Moisture Sensing	% RH (Relative Humidity) $\pm 3\%$
Temperature Measurement	± 3 °C
Flow rate measurement	Indicator only
Data Storage	4000 test
Communication options	RS485, RS232, MODBUS, CANBUS as standard
Ambient Temperature min/max	From -25 °C to +80 °C non K version - From -25 °C to +55 °C K version
Environmental Protection	IP 65/67 IK04 Impact Protection
Weight	1.15 kg
Electrical Supply	Voltage 9-36V DC
Power consumption	<2.2W
Outer Casing Finish	Polyurethane BS X34B. Colour BS381-638 (Dark Sea Grey) Approval: BS2X34A & BS2X34B, MM0114 & SP-J-513-083 T. II Cl. A Performance: MIL-PRF-85285

ICM – Inline Contamination Monitor

Installation Guidelines



ICM Dimensions



The ICM can be used as a standalone product or can be controlled by external PC, PLC or the ICM - RDU Remote Display Unit. 3m control cable supplied as standard.

Ordering information

Example: **1** **2** **3** **4** **5** **6**
ICM **W** **M** **K** **R** **G1**

1 - Product

ICM

2 - Moisture Sensor (RH%)

- 0** Without moisture and temperature sensor
- W** With moisture and temperature sensor

3 - Fluid compatibility

- M** Mineral oil
- N** Subsea fluids and water based fluids⁽¹⁾
- S** Phosphate ester and aggressive fluids⁽¹⁾

4 - Keypad/Display

- 0** Without keypad/display
- K** With keypad/display

5 - Relays

- 0** Without Relays
- R** With Relays

6 - Connections

- G1** ICM complete with minimes connections M16 x 2
- G3** 1/4" BSP - Female port
- G4** 7/16" UNF - Female port

⁽¹⁾ **N** and **S** version, moisture sensor (W) not available

ICM - Options and additional Products

ICM-RDU – Remote Display Unit

The ICM-RDU is advantageous when the ICM is out of reach or in a location unsuitable for viewing. The ICM can also be controlled via the remote display unit. The RDU is supplied as standard with a 3m cable.

Features & Benefits

- ◆ Large backlit display
- ◆ Keypad interface
- ◆ Robust die cast aluminium construction



Ordering information

ICM **RDU**

ICM-USBi and ICM-ETHi

Auxiliary Communications

Two auxiliary communication devices are available to order with the ICM. A USB interface which allows for communication via a laptop (RS485 to RS232 converter) & an ethernet device for remote access via a network hub.

Both devices can transmit power to the ICM/RDU electrical circuit using a DC power adapter.

The USBi has the additional benefit of supplying power via the USB cable directly. Both devices come with a DC Power adapter and 3m twisted pair cable as standard.

Features & Benefits

- ◆ Compact
- ◆ Plug and play solution
- ◆ Robust aluminium construction



Ordering information

ICM - USBi

ICM - ETHi

ICM-FC1-Flow Control Valve

FC1 – Flow Control Valve

The FC1 is a flow control valve which can operate across a range of fluid types and is compatible with the ICM where flow rate exceeds operating parameters.

Max pressure rating 400 bar at normal hydraulic system temperatures.

Features & Benefits

- ◆ Various connection options.
- ◆ Viscosity independent.
- ◆ Hexagonal form for ease of installation.



Ordering information

Example: **1** **ICM - FC1** **2** **M** **3** **G1**

1 - Product

ICM - FC1

2 - Fluid compatibility

- M** Mineral oil
- N** Subsea fluids and water based fluids
- S** Phosphate ester and aggressive fluids

3 - Port options

- G1** ICM complete with minimesh connections M16 x 2
- G3** 1/4" BSP - Female port
- G4** 7/16" UNF - Female port

AZ2 – Atex Zone 2, Cat 3G, Fluid Contamination Monitors

ICM AZ2 cable wiring details

MP Filtri do not supply an ATEX approved cable with the ICM AZ2 products as customers may run such cables through varying ATEX zones. For this reason, we supply the diagrams which allow wiring to be done on site, providing a greater degree of flexibility for installation.

Water and Temperature Sensing

The “W” option indicates water content as a percentage of saturation and oil temperature in degrees centigrade. 100% RH corresponds to the point at which free water can exist in the fluid. i.e. the fluid is no longer able to hold the water in a dissolved solution.

The sensor provides early indication of costly failure due to free water, including but not exclusive to;

- Corrosion
- Metal surface fatigue e.g. bearing failure
- Reduced lubrication & load carrying characteristics

* N.B. W option is not available on N and S versions Fluid Compatability

Can operate across a number of fluid types.

The fluid compatability option meets the needs of most major hydraulic markets.

M = Synthetic, petroleum & mineral based fluids.

N = Subsea Offshore and selected water based fluids.

S = Phosphate Ester & Aggressive fluids



Technical data

Technology	LED Based Light Extinction Automatic Optical Contamination Monitor
Particle Sizing	>4,6,14,21,25,38,50,70 µm(c) to ISO 4406 1999 Standard
Analysis range	ISO 4406: 1999 Code 0 to 25, NAS 1638 Class 00 to 12, AS4059 Rev.E. Table 1&2 Sizes A-F: 000 to 12 ISO 11218 00-12 (Lower Limits are Test Time dependent)
Accuracy	± ½ code for 4,6,14µm(c) ± 1 code for larger sizes
Calibration	Each unit individually calibrated with ISO Medium Test Dust (MTD) based on ISO 11171, on equipment certified by I.F.T.S. ISO 11943
Operating Flow Rate	20 - 400 ml/minute
Viscosity range	≤ 1000 cSt
Fluid temperature	From -25 °C to +80 °C
Pressure Max	400 bar (For high frequency pressure pulse and out range temperature applications contact MP Filtri)
Test Time	Adjustable 10 - 3600 seconds. Factory set to 120 seconds. Start delay & programmable test intervals available as standard
Moisture Sensing	% RH (Relative Humidity) ±3%
Temperature Measurement	±3 °C
Flow rate measurement	Indicator only
Data Storage	4000 test

Communication options	RS485, RS232, MODBUS, CANBUS as standard
Relays	Two solid state relays fitted to “R” version for output to alarm circuits
Ambient Temperature min/max	-25 °C to +80 °C
Environmental Protection	IP 66
Weight /Dimensions	10.5 kg, Height 260 mm., Width 185 mm., Width 130 mm. (w/o connector fitted)
Electrical Supply	Voltage 9-36V DC
Current Supply	12V - 150mA, 24V - 80mA, 36V - 60mA
Power consumption	<2.2W
Outer Casing Finish	Stainless Steel
Wetted parts	M - C46400 Cu alloy, 316 stainless steel, viton, FR4, sapphire. N - 316 stainless steel, viton, sapphire. S - 316 stainless steel, perfluoro elastomer, sapphire, EPDM.
Software	LPA View software (included)
Atex classification	CE II 3 G EX nR IIB T5 GC IP66

Ordering information

Findynamica
drive and control products

ICM W M K R G1 AZ2

Moisture Sensor, Mineral / Petroleum based fluids, LCD Display, Relays, M16 x 2 Minimes Connections

ICM O M K R G1 AZ2

Mineral / Petroleum based fluids, LCD Display, Relays, M16 x 2 Minimes Connections

ICM O N K R G1 AZ2

Off shore / Water based fluids, LCD Display, Relays, M16 x 2 Minimes Connections

ICM O S K R G1 AZ2

Phosphate Ester and aggressive fluids, LCD output, Relays, M16x2 Minimes Connections

All of MP Filtri's AZ2 products are designed to be run via PLC control & the Modbus communication protocol. Note: All units are fully compatible with and can be programmed via our bespoke windows based LPA View software.

ACMU - Auxiliary Contamination Monitoring Unit

ACMU

Incorporating the ICM contamination monitor, the ACMU is specifically designed for aerated, viscous and/or un-pressurized hydraulic/lubrication systems.

Where can it be used?

- ◆ Wind/Tidal/Wave Energy
- ◆ Gearbox applications
- ◆ Gearbox monitoring
- ◆ Offshore & ship systems
- ◆ Lubrication & Oil systems
- ◆ Mobile Equipment
- ◆ Test Benches

When should it be used?

- ◆ Entrained air or turbulent flows
- ◆ Higher viscosity fluids
- ◆ Un-pressurized systems

Why should it be used?

- ◆ Easy to retro-fit.
- ◆ Exceptional communication & 4000 test memory.
- ◆ Reliable & accurate performance.



Technical data

Cabinet Version

Plate version

In - Line contamination monitor	ICM with keypad and backlit display and relays	ICM with keypad and backlit display and relays
Particle Sizing	As ICM: >4, 6, 14, 21, 25, 38, 50, 70 µm(c) to ISO 4406 1999 Standard	As ICM: >4, 6, 14, 21, 25, 38, 50, 70 µm(c) to ISO 4406 1999 Standard
Moisture Sensing (RH%)	Available with or without moisture sensor	Available with or without moisture sensor
Communication Protocols	PLC compatible. RS485, RS232 & CanBus (J1939 typical)	PLC compatible. RS485, RS232 & CanBus (J1939 typical)
Software	LPAView (Supplied with product)	LPAView (Supplied with product)
Re-calibration	Defined by customer Quality Controls recommended 1 year	Defined by customer Quality Controls recommended 1 year

CONTROL, COMMUNICATION & INTERFACE

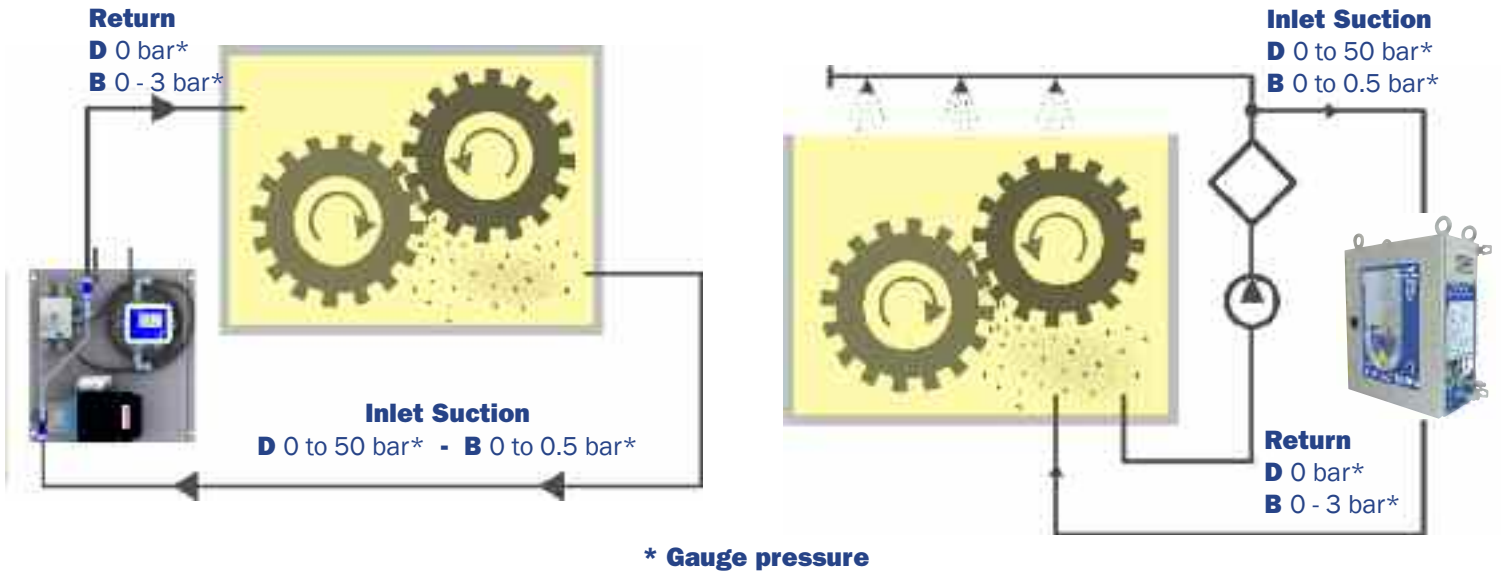
On/off & Stop/Start signals (Remote)	Start/Stop signalling & test set up user	Start/Stop signalling & test set up user
Circuit Flow Rate	40 ml/min to 400 ml/min	40 ml/min to 400 ml/min
Hydraulic Hoses (External)	Customer to source their own	Customer to source their own
Electric Motor	110V AC, 230V AC, 415V AC, 690V AC	110V AC, 230V AC, 415V AC, 690V AC
Weight	21 Kg.	13 Kg.
Lifting Eyes	Yes x 4 DIN 580, WLL 3400N at 45° (~340K)	Yes x 2 WLL 16000N (~1600Kg)
USBi Comms Junction Box	See USBi user guide	No junction box

OPERATIONAL PARAMETERS

Fluid Compatibility/Corrosion Resistance	Hydrocarbon based & Synthetic hydraulic fluids	Hydrocarbon based & Synthetic hydraulic
Min Inlet Pressure	Positive pressure	Positive pressure
Max Inlet Pressure	50 bar gauge pressure - pump option dependant	50 bar gauge pressure - pump option dependant
Min. Outlet Pressure	Atmosphere (1.013mbar at sea level)	Atmosphere (1.013mbar at sea level)
Max Outlet Pressure	3 bar (gauge pressure)	3 bar (gauge pressure)
Max. Fluid Temperature (Continuous)	80 °C	80 °C
Min. Fluid Temperature (Continuous)	Viscosity dependant. Not greater than 1000cSt	Viscosity dependant. Not greater than 1000cSt
Min Temperature (Start Up)	Viscosity dependant. Not greater than 1000 cSt≈ 25 °C ISO VG 320	Viscosity dependant. Not greater than 1000 cSt≈ 25 °C ISO VG 320
Max. Viscosity	1000 cSt	1000 cSt
Min. Viscosity	10 cSt	10 cSt
Min. Start Up Ambient Temperature	-40 °C	-40 °C
Max Start Up Ambient Temperature	+50 °C	+50 °C
Power Consumption	0.25kW max	0.25kW max
Warranty	See user guide	See user guide

ACMU - Auxiliary Contamination Monitoring Unit

Installation Guidance



- ◆ Priming of pump prior to start up recommended
- ◆ Install below level of head of tank
- ◆ Keep hose length, inlet and outlet, to minimum lengths
- ◆ Max 1000cSt

Ordering information

Example: **1** **2** **3** **4** **5** **6**
ACMU **W** **D** **C** **S** **230V**

1 - ACMU

2 - Moisture Sensor (RH%)

- 0** Without moisture and temperature sensor
- W** With moisture RH% and temperature sensor

3 - Pump option

- D** Up to 50 bar inlet (gauge pressure), atmosphere outlet
- B** 0.5 (gauge pressure) {1 bar max inlet}, 3 bar (gauge pressure) max outlet

4 - Type

- C** Cabinet version (supplied with 5 metre communication lead)
- P** Plate mounted version (supplied with ICM 3 metre cable)

5 - Version

- S** Standard version

6 - Motor option

- 110 v** 110v Motor (Dual frequency 50Hz/60Hz, single phase)
- 230 v** 230v Motor (3 phase)
- 400 v** 400v Motor (3 phase)
- 690 v** 690v Motor (3 phase)

Bottle Samplers - for use with LPA2 and CML2 Contamination Monitoring Products

BSLPA & BS500

The 110ml & 500ml bottle samplers are suitable for off line and laboratory applications where fluid sampling at point of use is inaccessible or impractical. A fluid de-aeration facility comes as standard.

Features & Benefits

- ◆ Vacuum feature for de-aeration of fluids
- ◆ Compatible with all portable MP Filtri Contamination Monitoring Products
- ◆ Strong Laboratory aesthetic
- ◆ Transparent outer for visual indication
- ◆ Full accessories kit included
- ◆ Includes carry case (BSLPA)
- ◆ Contact MP Filtri for use with fluids other than those stated



BS500

Mineral oil/water based and Offshore fluids or phosphate ester version.



BSLPA (mineral use only)

Ordering information

Bottle sampler BSLPA

Example:

1
BSLPA

2
M

3
110

BSLPA Bottle sampling unit, suitable for Mineral & synthetic oils.

Bottle sampler BS500

Example:

1
BS500

2
V

3
0

4
0

5
UK

1 - Version

BS500

2 - Fluid compatibility

- | |
|---|
| V |
|---|

 Viton seals (mineral & synthec oils and subsea/water based fluids)
- | |
|---|
| E |
|---|

 EPDM seals (phosphate ester and agressive fluids)

3 - Pressure rating

- | |
|---|
| 0 |
|---|

 2.5 bar (<68cSt)
- | |
|---|
| H |
|---|

 4.5 bar (>68cSt)

4 - Cylinder type

- | |
|---|
| 0 |
|---|

 Acrylic cylinder
- | |
|---|
| S |
|---|

 Borosilicate glass cylinder (phosphate esters only)

5 - Power Supply

- | |
|----|
| UK |
|----|

 UK power adapter
- | |
|----|
| EU |
|----|

 European power adapter
- | |
|----|
| US |
|----|

 United States power adapter
- | |
|--------|
| CN/AUS |
|--------|

 Australasia power adapter

Findynamica
drive and control products

Bottle Samplers - for use with LPA2 and CML2 Contamination Monitoring Products

BSLPA & BS500

The 110ml & 500ml bottle samplers are suitable for off line and laboratory applications where fluid sampling at point of use is inaccessible or impractical. A fluid de-aeration facility comes as standard.

Features & Benefits

- ◆ Vacuum feature for de-aeration of fluids
- ◆ Compatible with all portable MP Filtri Contamination Monitoring Products
- ◆ Strong Laboratory aesthetic
- ◆ Transparent outer for visual indication
- ◆ Full accessories kit included
- ◆ Includes carry case (BSLPA)
- ◆ Contact MP Filtri for use with fluids other than those stated



BS500

Mineral oil/water based and Offshore fluids or phosphate ester version.



BSLPA (mineral use only)



Ordering information

Bottle sampler BSLPA

Example:

1
BSLPA

2
M

3
110

BSLPA Bottle sampling unit, suitable for Mineral & synthetic oils.



Bottle sampler BS500

Example:

1
BS500

2
V

3
0

4
0

5
UK

1 - Version

BS500

2 - Fluid compatibility

- | |
|---|
| V |
|---|

 Viton seals (mineral & synthec oils and subsea/water based fluids)
- | |
|---|
| E |
|---|

 EPDM seals (phosphate ester and agressive fluids)

3 - Pressure rating

- | |
|---|
| 0 |
|---|

 2.5 bar (<68cSt)
- | |
|---|
| H |
|---|

 4.5 bar (>68cSt)

4 - Cylinder type

- | |
|---|
| 0 |
|---|

 Acrylic cylinder
- | |
|---|
| S |
|---|

 Borosilicate glass cylinder (phosphate esters only)

5 - Power Supply

- | |
|----|
| UK |
|----|

 UK power adapter
- | |
|----|
| EU |
|----|

 European power adapter
- | |
|----|
| US |
|----|

 United States power adapter
- | |
|--------|
| CN/AUS |
|--------|

 Australasia power adapter