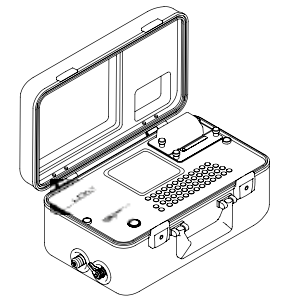
LPA2

Twin Laser Particle Analyser

Description

Automatic Particle Counters

Twin Laser Particle Analyser



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. The LPA2 can be connected to the MP range of bottle sampler products to enable laboratory based particle counting.
The LPA2 is a solution for online monitoring of contamination in your hydraulic fluid, providing an immediate hydraulic health check. It employs predictive maintenance procedures to help reduce downtime and in turn costs.

> Features & Benefits

- LPA2 saves time: online/realtime monitoring
- Immediate hydraulic health check
- Predictive maintenance procedures can be employed
- Reduced downtime for industrial and mobile plants
- Reduced costs associated with downtime
- The lightest machine in its class
- Fully portable
- Precision Instrument
- Full Calibration based on ISO11171
- Measures and displays the following international standard formats; ISO 4406:2017, NAS 1638, AS 4059E
- 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

Scope of Supply

1 x LPA2 (*)
1 x M16x2 microbore pressure hose, 1500mm long
1 x 2000mm quick release waste hose for LPA2
1 x 1L waste receptacle
1 x 12V, 2A power adapter c/w UK/EU/US/AUS/CN heads
1 x 9 pin serial cable
1 x USB to serial converter
1 x 3 pin socket for external signals
1 x Hard copy of product user guide
1 x Digital copy of user guides/software/drivers
2 x Hard copy of calibration certificate
2 x Thermal printer paper
1 x Carry bag

(*) Specific model will be as per ordered item

See Accessories at page 77.

Front facing view

Right facing view

Closed case
Right facing view

Closed case
Left facing view

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 $\mu m_{(c)}$ to ISO 4406:2017 Standard

Analysis range
ISO 4406:1999 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%

Data Storage
600 test

System Pressure Measurement
+/- 0.5% Full Scale Accuracy Min 10 bar

Communication options
RS232 9 pin D plug

Ambient Temperature min / max
-10 °C to +80 °C

Environmental Protection
IP51 (lid open)

Weight / Dimensions
9.8 kg, Height 210mm, Depth 260mm, Width 430mm

Electrical Supply
Voltage 9-36V DC

Power
Internal rechargeable battery (mains charger)

Outer Casing Finish
Anodised Aluminium

Wetted parts
M - C46400 Cu alloy, 316 stainless steel, FPM, FR4, sapphire.
N - 316 stainless steel, FPM, sapphire.
S - 316 stainless steel, perfluoro elastomer, sapphire, EPDM.

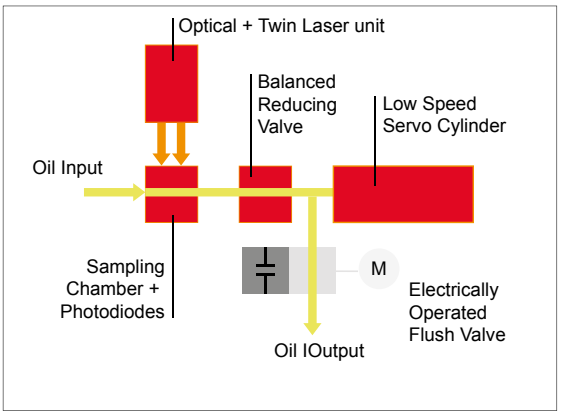
Software
LPA View software (included)

LPA2 is supplied with a full software package and digital product information

LPA2

FOCUS ON

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

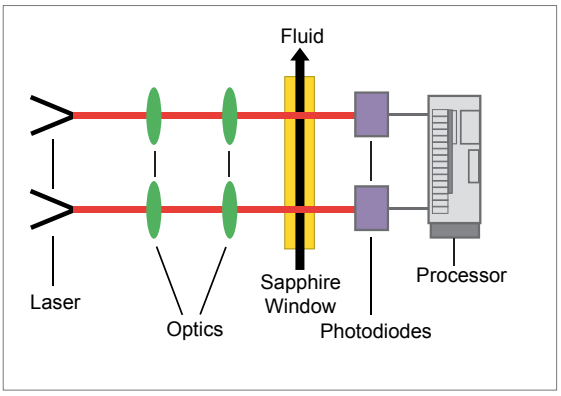


W-Option
Water Saturation level (RH%) and fluid temperature sensor option.

P-Option
Live Pressure Readout (bar) on display screen.

Laser 1
A single point high accuracy laser measures particles of contamination at 4 $\mu m_{(c)}$ and 6 $\mu m_{(c)}$ giving increased accuracy with excellent repeatability.

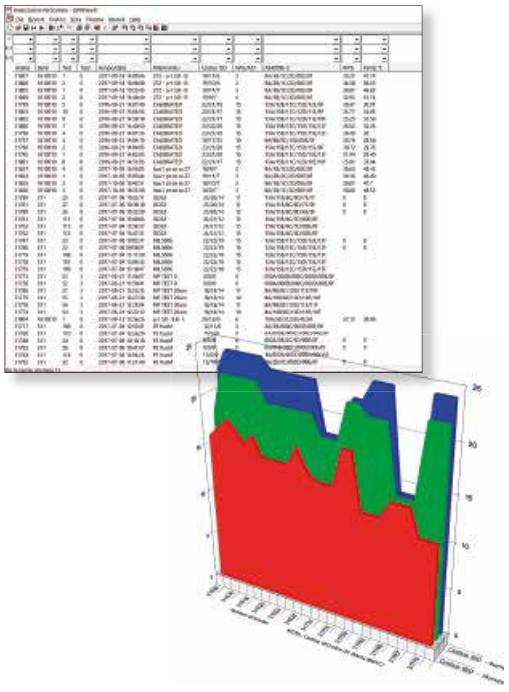
Laser 2
Standard accuracy laser specifically designed for system contaminants between 6 $\mu m_{(c)}$ and 70 $\mu m_{(c)}$.



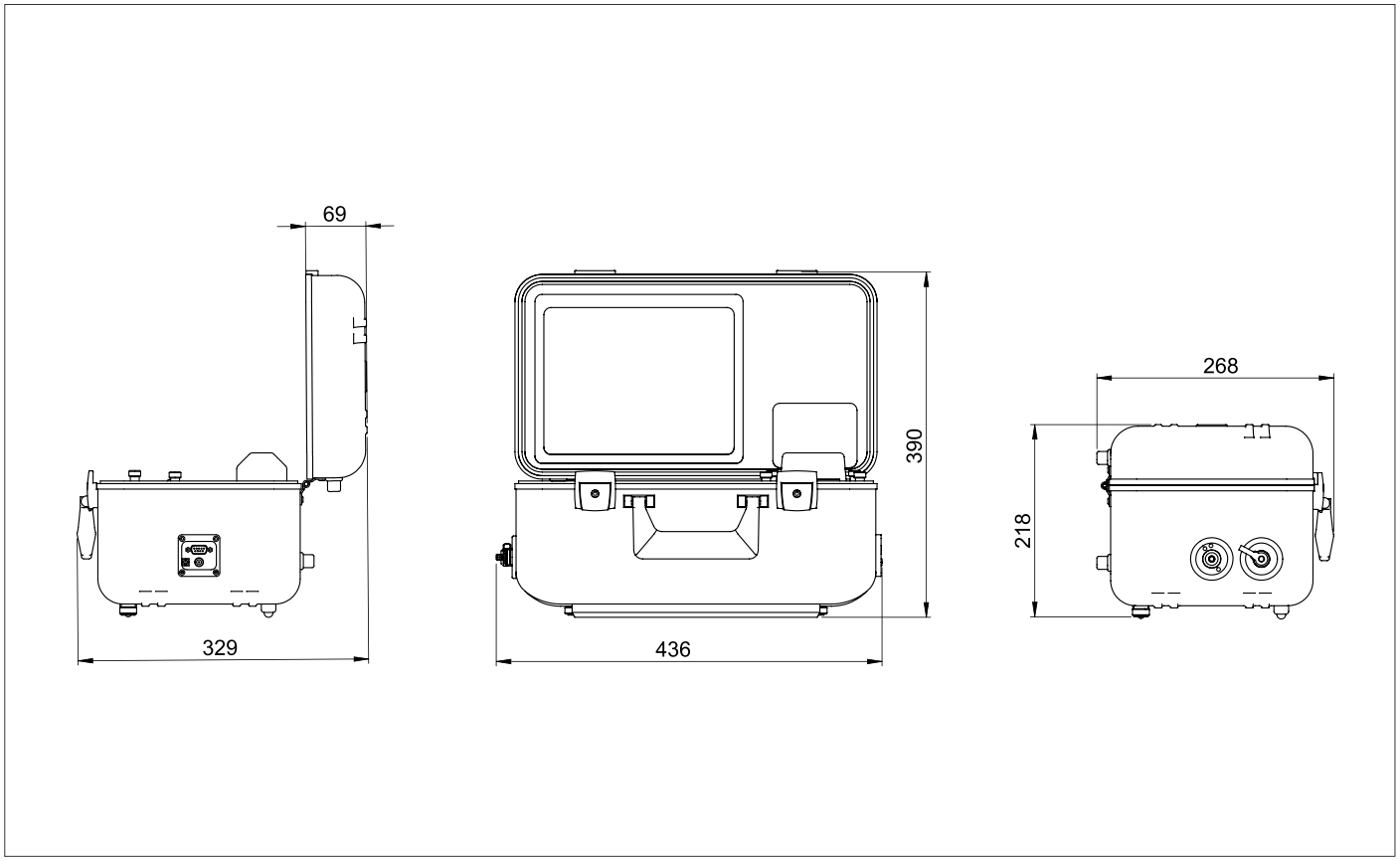
LPA View Software

The LPA View software is used with the LPA2, CML2 and ICM particle counters. When connected to LPA View, MP Filtri CMPs can transfer results in realtime, or alternatively historical results can be downloaded from the CMP's inbuilt memory.

- Runs on Windows 2000, XP, Vista and Windows 10.
- Full adjustment & control of product settings, test times and alarms
- Easy test report generation
- Trend analysis
- Graphical display options
- Universal format across our contamination monitoring product range



Dimensions



Designation & Ordering code

AUTOMATIC PARTICLE COUNTER LPA2

Configuration example: LPA2 | W | P | M | S | X | 30

Series
LPA2 Twin laser particle analyser

Moisture Sensor
0 Without moisture and temperature sensor
W With moisture and temperature sensor

Pressure Sensor
0 Without on-screen inlet pressure display
P With on-screen inlet pressure display

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

Accessories
S Standard unit with carry bag
T Standard unit with travel case

Bottle sampling options
X Without bottle sampling

Design Ref.
30

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