

AZ2

 ATEX Fluid Contamination Monitors

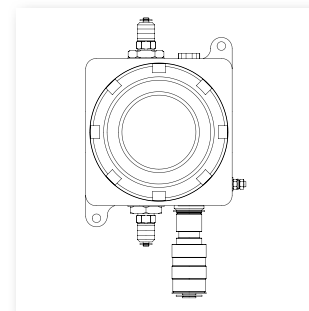


Description

Particle Counters

Ex Atex Zone 2, Cat 3G, Fluid Contamination Monitors

Our AZ2 contamination monitor can automatically measure and save particulate contamination, moisture and temperature levels in various hydraulic fluids. They are designed specifically to be mounted directly to systems where ongoing measurement or analysis is required in high risk or explosive environments.



> Features & Benefits

- 8 channel contamination measurement & display
- Measures and displays the following international standard formats:
ISO 4406:2017, NAS 1638, AS 4059E
- RS485, MODBUS, CANBUS
- Moisture and temperature sensing fluid dependent
- Data logging and 4000 test result memory
- Automatic and remote control flexibility
- Multicolour indicators via onboard LED with output alarm signals as standard
- LPA View software (included)

Scope of Supply

- 1 x ICMKAZ2 (*)
- 1 x Atex approved non wired cable connector and gland
- 1 x Hard copy Fluid Condition Handbook
- 1 x Digital copy of user guides/software/drivers
- 1 x Hard copy of calibration certificate
- 1 x Hard copy of atex certificate

(*) Specific model will be as per ordered item

See Accessories at page 77.

Status LED

All AZ2 versions have a multicolour indicator on the front panel, which is used to indicate the status or alarm state. The alarm thresholds can be set from LPA-View via the serial interface and bespoke connector (available on request).

Multicolor indicators

- Green indicates that the test result passed, i.e. none of the alarm thresholds were exceeded
- Yellow indicates that the lower cleanliness limit was exceeded, but not the upper one
- Red indicates that the upper cleanliness limit was exceeded
- Blue indicates that the upper water content limit was exceeded
- Red/Blue Alternating indicates both cleanliness and water content upper limits exceeded
- Violet indicates that the upper temperature limit was exceeded



Front facing view



Right facing view



Top facing view



Bottom facing view

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 4406:2017 Standard

Analysis range

ISO 4406:2017 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 equivalent 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

Ambient Temperature

From -25 °C to +80 °C

Temperature Measurement

± 3 °C%

Pressure

Maximum: 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

Flow rate measurement

Indicator only

Data Storage

4000 tests

Communication options

RS485, RS232, MODBUS, CANBUS as standard

Relays

Two solid state relays fitted to "R" version for output to alarm circuits

Environmental Protection

IP66

Moisture Sensing

% RH (Relative Humidity) $\pm 3\%$

Weight

10.5 kg

Electrical Supply

Voltage 9-36V DC

Current Supply

12V - 150mA

24V - 80mA

36V - 60mA

Power consumption

<2.2 W

Outer Casing Finish

Stainless Steel

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)

Atex classification

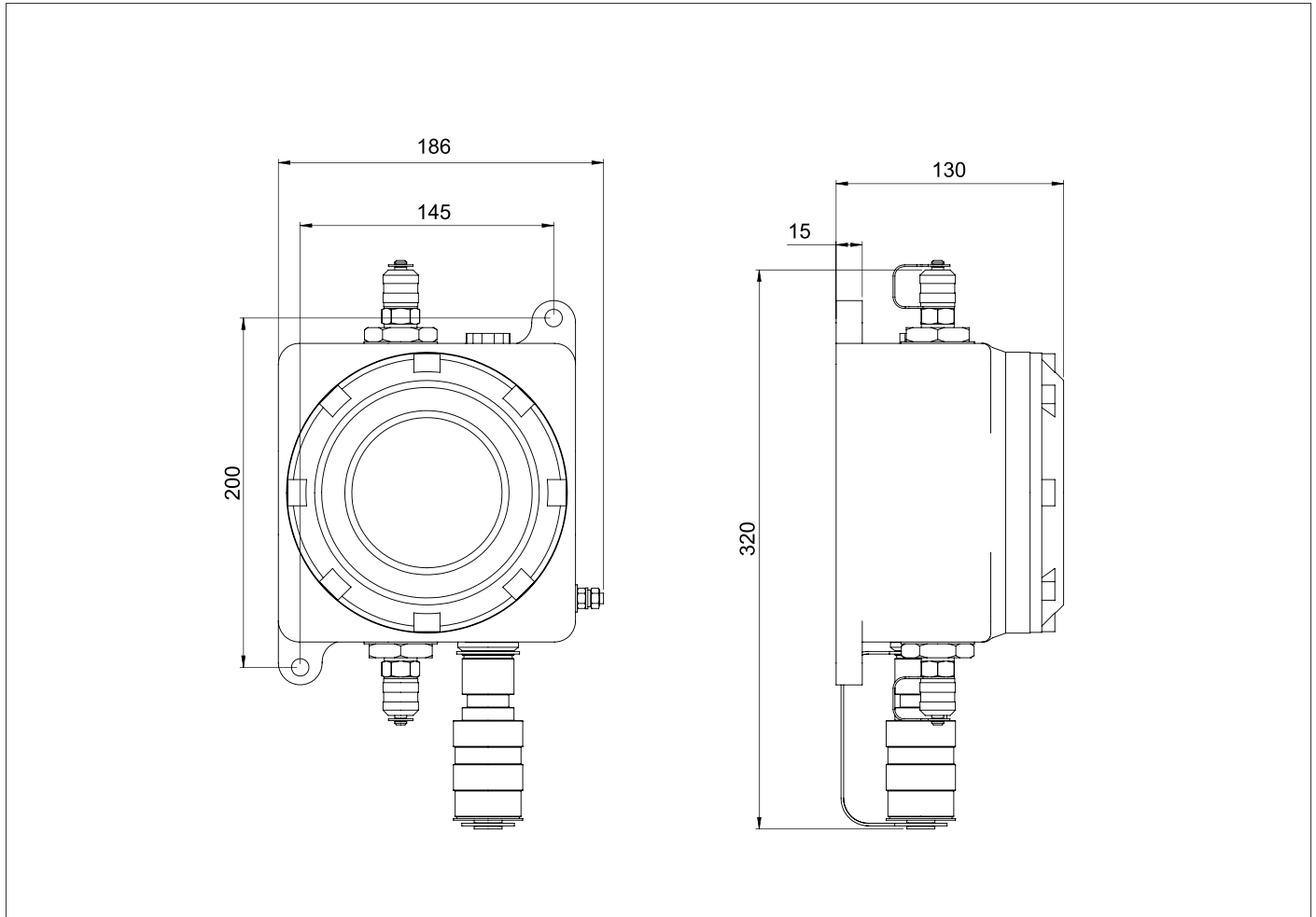
CE  3 G EX nR IIB T5 GC IP66

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. Wiring diagrams supplied, please consult product user guide for full information.

Note: an adapter cable and ICMUSBi product will be required should LPA View be utilised as the control software. These accessories are only suitable for use outside of the zoned areas

Dimensions



Designation & Ordering code

AUTOMATIC PARTICLE COUNTER AZ2

Configurations :

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.