

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

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|--------------------------------|---|
| 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 |

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|------------------------------------|---|
| 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

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.