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.



Plate version

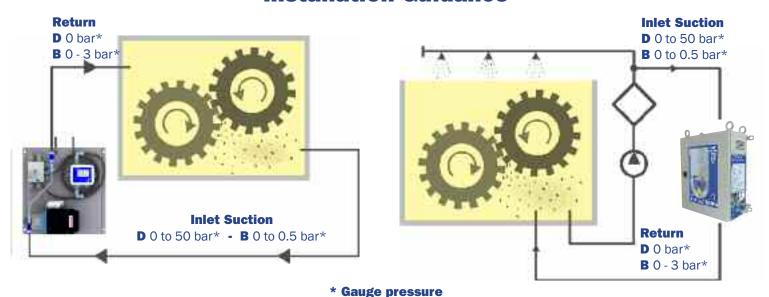
Technical data

Cabinet 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) | As ICM: >4, 6, 14, 21, 25, 38, 50, 70 μm(c) |
| | to ISO 4406 1999 Standard | 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 | PLC compatible. RS485, RS232 & CanBus |
| | (J1939 typical) | (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) |
| Min. Outlet Pressure Max Outlet Pressure | Atmosphere (1.013mbar at sea level) 3 bar (gauge pressure) | Atmosphere (1.013mbar at sea level) 3 bar (gauge pressure) |
| | | |
| Max Outlet Pressure | 3 bar (gauge pressure) | 3 bar (gauge pressure) |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) | 3 bar (gauge pressure) 80°C | 3 bar (gauge pressure) 80°C |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) Min. Fluid Temperature (Continuous) | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) Min. Fluid Temperature (Continuous) | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) Min. Fluid Temperature (Continuous) Min Temperature (Start Up) | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) Min. Fluid Temperature (Continuous) Min Temperature (Start Up) Max. Viscosity | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) Min. Fluid Temperature (Continuous) Min Temperature (Start Up) Max. Viscosity Min. Viscosity | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt 10 cSt | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt 10 cSt |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) Min. Fluid Temperature (Continuous) Min Temperature (Start Up) Max. Viscosity Min. Viscosity Min. Start Up Ambient Temperature | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt 10 cSt -40°C | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt 10 cSt -40°C |
| Max Outlet Pressure Max. Fluid Temperature (Continuous) Min. Fluid Temperature (Continuous) Min Temperature (Start Up) Max. Viscosity Min. Viscosity Min. Start Up Ambient Temperature Max Start Up Ambient Temperature | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt 10 cSt -40°C +50°C | 3 bar (gauge pressure) 80°C Viscosity dependant. Not greater than 1000cSt Viscosity dependant. Not greater than 1000 cSt≈ 25°C ISO VG 320 1000 cSt 10 cSt -40°C +50°C |

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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: ACMU W D C S 230V

1 - ACMU

2 - Moisture Sensor (RH%)

- 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

- 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)