

### 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.

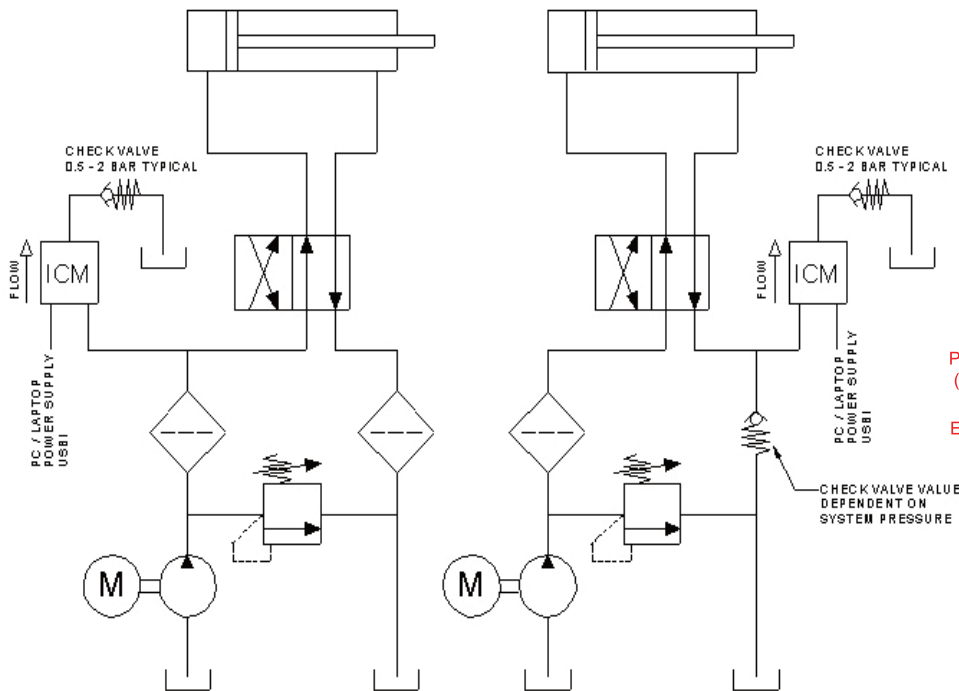
### Features & Benefits

- ◆ 8 channel contamination measurement & display
- ◆ Measures and displays the following international standard formats; ISO 4406:1999, NAS 1638, AS 4059E
- ◆ Moisture and temperature sensing fluid dependant
- ◆ Data logging and 4000 test result memory
- ◆ Manual, automatic and remote control flexibility
- ◆ **Multicolour indicators via LCD (K versions) and LED with output alarm signals as standard**
- ◆ Robust die cast aluminium construction
- ◆ LPA View software (included)
- ◆ **Pressure max. 420 bar**
- ◆ Environmental protection IP65/67 versatile
- ◆ **Secondary connector to allow the simultaneous control/ download of results during operation**
- ◆ **Option available to download all results onto a USB stick, direct from the ICM**
- ◆ **4-20mA analogue output as standard**



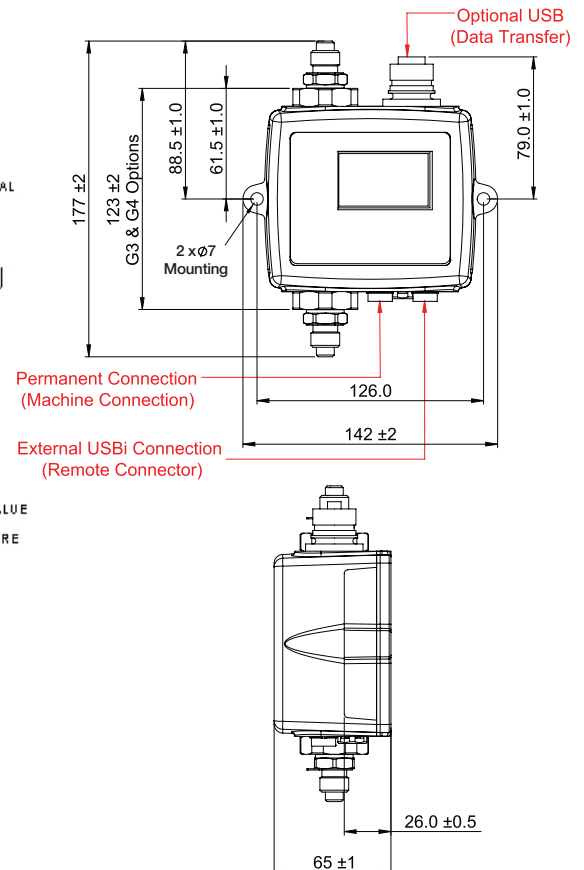
Screen and multicolour indicators

### Typical Installation Guidelines



It is important to ensure a 0.5 to 2.0 barg differential across the ICM

### ICM Dimensions



### Technical data

<b>Technology</b>	LED Based Light Extinction Automatic Optical Contamination Monitor
<b>Particle Sizing</b>	>4,6,14,21,25,38,50,70 µm(c) to ISO 4406 1999 Standard
<b>Analysis range</b>	ISO 4406: 1999 Code 0 to 25, NAS 1638 Class 00 to 12, AS4059 Rev.E. Table 1&2 Sizes A-F: 000 (Lower Limits are Test Time dependent)
<b>Accuracy</b>	± ½ code for 4,6,14µm(c) ± 1 code for larger sizes
<b>Calibration</b>	Each unit individually calibrated with ISO Medium Test Dust (MTD) based on ISO 11171, on equipment certified by I.F.T.S. ISO 11943
<b>Operating Flow Rate</b>	20 - 400 ml/minute
<b>Viscosity range</b>	≤ 1000 cSt
<b>Fluid temperature</b>	From -25°C to +80°C
<b>Pressure Max</b>	420Bar
<b>Test Time</b>	Adjustable 10 - 3600 seconds. Factory set to 120 seconds. Start delay & programmable test intervals available as standard.
<b>Moisture Sensing</b>	% RH (Relative Humidity) ±3%
<b>Temperature Measurement</b>	±3°C
<b>Flow rate measurement</b>	Indicator only
<b>Data Storage</b>	4000 test
<b>Communication options</b>	RS485, RS232, MODBUS, CANBUS, 4-20mA time multiplex as standard
<b>Ambient Temperature min/max</b>	From -25°C to 80°C non K version - From -25°C to 55°C K version
<b>Environmental Protection</b>	IP 65/67 versatile IK04 Impact Protection
<b>Weight</b>	1.6 kg
<b>Electrical Supply</b>	Voltage 9-36V DC
<b>Power consumption</b>	<2.2W
<b>Outer Casing Finish</b>	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

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** **7**  
**ICM** **W** **M** **K** **R** **G1** **2.0**

#### 1 - Product

**ICM**

#### 2 - Moisture Sensor (RH%)

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

#### 3 - Fluid compatibility

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

<sup>(1)</sup> **N** and **S** version, moisture sensor (W) not available

#### 4 - Keypad/Display

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

#### 5 - Device output

- R** With relays/external alarm outputs
- U** Test record transfer (direct to USB stick) plus relays/external alarm outputs

#### 6 - Connections

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

#### 7 - New Series

**2.0**

### CMP

other Contamination Monitoring Products in our range



CML2



LPA2



Atex ICM



ACMU



Bottle Samplers

Filtration, accessories and B.H. coupling products



Offline units

and more..

