**Fluid Control Units - Portable Models**

Formally Known as “TMU - TestMate® Monitoring Unit”

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**Features and Benefits**

- Two contamination calibrations in one instrument (reversible)
- ISO 4406:1987; NAS 1638
- ISO 4406:1999; SAE AS 4059(D)
- Saturation and temperature measurement through the built-in AquaSensor (AS 1000)
- Integrated pump for measurement in pressureless reservoirs
- Operation with 24 VDC network adaptor included in scope of delivery
- Data storage capabilities
- Interfaces: 5-pole plug, Bluetooth, USB data port

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The FCU1310 combines the advantages of the portable contamination measurement units with the measurement technology of the Contamination Sensor (CS 1000) and AS 1000 Aqua Sensor.

The FCU is a portable service unit and is designed for measurement of solid particle contamination and water saturation in hydraulic systems. It is designed for temporary operation up to a maximum of 30 minute runtime followed by a rest period of 10 minutes and is not intended for continuous operation.

The FCU will measure contamination levels on mineral based hydraulic oils compatible with Viton® seals. The FCU is not compatible with water glycol fluids.

The integrated pump and the hoses with test point connections, which are included with the FCU, allow operation on pressureless reservoirs, control circuits, and high pressure circuits.

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**General Data:**

- **Self-Diagnosis:** Continuously with error indication via status LED and display
- **Measured Value:** ISO code / SAE Class / NAS Class / Saturation level / Temperature
- **Measuring Range:**
  - Display from ISO code 9/8/7 (MIN) to ISO code 25/24/23 (MAX)
  - Saturation level 0 to 100 % / Temperature -13°F to 212°F (-25°C to 100°C)
- **Accuracy:** ± 1/2 ISO class in the calibrated range / ± 2 % Full scale max.
- **Material of Sealings:** FPM Viton seals
- **Ambient Temperature Range:** 32°F to 113°F (0°C to 45°C)
- **Storage Temperature Range:** -40°F to 176°F (-40°C to +80°C)
- **Dimensions (cover closed):** 9” H x 16” L x 13”D
- **IP Class:** IP50 in operation IP67 closed
- **Weight:** Approx. 29 lbs (13 kg)

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**Hydraulic Data:**

- **Operating Pressure:**
  - IN: -7.25 to 650 psi (-0.5 to 45 bar)
  - OUT: 0 to 7.5 psi (0 to 0.5 bar)
- **with Adapter for Pressure Lines:**
  - IN: 217 to 5000 psi (15 to 345 bar)
  - OUT: 0 to 7.5 psi (0 to 0.5 bar)
- **Pressure Max.:** 5000 psi (345 bar) (using included high pressure adapter)
- **Maximum Suction Height:** 39 in (1 m)
- **Permissible Viscosity Range:** 46 to 1622 SUS (10 to 350 cSt)
- **Fluid Temperature Range:** 32°F to 158°F (0°C to +70°C)

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**Electrical Data:**

- **Power Supply Voltage:** 24 VDC ± 20%, residual ripple < 10%
- **Max. Power / Current Consumption:** 100 Watt / 4 A
- **Interface:** Plug connection, 5-pole, male, M12x1 and USB
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**Model Number Selection**

**How to Build a Valid Model Number for a Schroeder FCU:**

<table>
<thead>
<tr>
<th>BOX 1</th>
<th>BOX 2</th>
<th>BOX 3</th>
<th>BOX 4</th>
<th>BOX 5</th>
<th>BOX 6</th>
<th>BOX 7</th>
<th>BOX 8</th>
<th>BOX 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCU</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>4</td>
<td>U</td>
<td>AS</td>
<td>1</td>
</tr>
</tbody>
</table>

Example: **NOTE: One option per box**

- BOX 1: FCU = Fluid Control Unit
- BOX 2: 1000 Series, 1 = 4 particle size channels
- BOX 3: Contamination Code
  - 3 = ISO 4406: 1987 NAS 1638 > 2 µm > 5 µm > 15 µm > 25 µm
  - ISO 4406: 1999 SAE AS 4059(D) > 4 µm(c) > 6 µm(c) > 14 µm(c) > 21 µm(c)
- BOX 4: Housing
  - 1 = for Hydraulic and lubrication fluids based on mineral oils
  - 5 = fluids based on mineral oils as well as diesel
- BOX 5: Fluids
  - 0 = Mineral Oil, Synthetic Esters/PAO, Quintolubric, Cosmolubric (Consult factory for other fluid types.)
- BOX 6: Options
  - 4 = with Integrated Pump
- BOX 7: Supply Voltage
  - U = 24 V DC
- BOX 8: Integrated
  - AS = AquaSensor (AS 1000 series)
- BOX 9: Power Supply Adapter
  - 1 = 100 to 240 V AC / 50/60 Hz / 1 Phase, (Europe, USA, Canada, UK, Australia, Japan)

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We do not guarantee the accuracy or completeness of this information. The information is based on average working conditions. For exceptional operating conditions, please contact our technical department. All details are subject to technical changes.

**Items supplied with FCU-1310-4-U-AS-1 include:**

- Fluid control Unit FCU 1000
- Power supply AC adapter with connecting cables to supply voltage for Europe, USA/Canada, UK, Australia, & Japan
- Adapter for pressure lines
- Inlet pressure hose with screw connection for 1620 test point, length = 2 meters (approx. 79 inches) in length
- Inlet suction hose, clear, open end, length = 0.3 meters (approx. 12 inches) in length
- Outlet return hose, open end, clear, length 1 meter (approx. 39 inches) in length
- USB Flash Drive

**Accessories:**

- Battery Pack (approx. 5 hours of use) Part No. 3504605

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64 SCHROEDER INDUSTRIES