Fluid Control Units - Portable Models

Formally Known as “TMU - TestMate® Monitoring Unit”

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

Applications

- Hydraulic systems
- Service for mobile hydraulics
- Maintenance

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 minutes 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.

Description

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)
Calibrated within the range ISO 13/11/10 to 23/21/18
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)

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)
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 (-25°C to +70°C)
Pressure Max.: 5000 psi (345 bar) (using included high pressure adapter)

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

Specifications

AMS, AMD
FS
AMFS
KLS, KLD
MCO
AKS, AKD
LSN, LSA, LSW
X Series
OLF Compact
OLF
OLF-P
NxTM
VEU-F
IXU
Triton-A
Triton-E
NAV
SVD01
SVD
OXS
Appendix

SCHROEDER INDUSTRIES 59
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>
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<tbody>
<tr>
<td>FCU</td>
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<tr>
<td>Series</td>
<td>Model</td>
<td>Contamination Code</td>
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<tr>
<td>FCU = Fluid Control Unit</td>
<td>1000 Series, 1 = 4 particle size channel, 3 = ISO 4406: 1987 NAS 1638 &gt; 2 µm &gt; 5 µm &gt; 15 µm &gt; 25 µm, 1 = ISO 4406: 1999 SAE AS 4059(D) &gt; 4 µm(c) &gt; 6 µm(c) &gt; 14 µm(c) &gt; 21 µm(c)</td>
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Example: NOTE: One option per box

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<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>
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</tbody>
</table>

= FCU 1310-4-U-AS-1

BOX 1
- Series: FCU = Fluid Control Unit

BOX 2
- Model: 1000 Series, 1 = 4 particle size channel, 3 = ISO 4406: 1987 NAS 1638 > 2 µm > 5 µm > 15 µm > 25 µm, 1 = ISO 4406: 1999 SAE AS 4059(D) > 4 µm(c) > 6 µm(c) > 14 µm(c) > 21 µm(c)

BOX 3
- Contamination Code

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: 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: 100 to 240 V AC / 50/60 Hz / 1 Phase, (Europe, USA, Canada, UK, Australia, Japan)

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