

# Fluid Control Units - Portable Models

**FCU**

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



Part of Schroeder Industries Energy Savings Initiative



- Usable with FluMos Mobile App
- Download and store measured data in real-time using FluMos Mobile App via Bluetooth connection

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.

## Description

## Specifications

<b>General Data:</b>	<b>Self-Diagnosis:</b>	Continuously with error indication via status LED and display
	<b>Measured Value:</b>	ISO code / SAE Class / NAS Class / Saturation level / Temperature
	<b>Measuring Range:</b>	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)
	<b>Accuracy:</b>	± 1/2 ISO class in the calibrated range / ± 2 % Full scale max.
	<b>Material of Sealings:</b>	FPM Viton seals
	<b>Ambient Temperature Range:</b>	32°F to 113°F (0°C to 45°C)
	<b>Storage Temperature Range:</b>	-40°F to 176°F (-40°C to +80°C)
	<b>Dimensions (cover closed):</b>	9" H x 16" L x 13"D
	<b>IP Class:</b>	IP50 in operation IP67 closed
	<b>Weight:</b>	Approx. 29 lbs (13 kg)
<b>Hydraulic Data:</b>	<b>Operating Pressure:</b>	IN: -7.25 to 650 psi (-0.5 to 45 bar) OUT: 0 to 7.5 psi (0 to 0.5 bar)
	<b>with Adapter for Pressure Lines:</b>	IN: 217 to 5000 psi (15 to 345 bar) OUT: 0 to 7.5 psi (0 to 0.5 bar)
	<b>Pressure Max.:</b>	5000 psi (345 bar) (using included high pressure adapter)
	<b>Maximum Suction Height:</b>	39 in (1 m)
	<b>Permissible Viscosity Range:</b>	46 to 1622 SUS (10 to 350 cSt)
	<b>Fluid Temperature Range:</b>	32°F to 158°F (0°C to +70°C)
<b>Electrical Data:</b>	<b>Power Supply Voltage:</b>	24 VDC ± 20%, residual ripple < 10%
	<b>Max. Power / Current Consumption:</b>	100 Watt / 4 A
	<b>Interface:</b>	Plug connection, 5-pole, male, M12x1 and USB

CS 1000

CS 1939

CSI-C-11

HY-TRAX®

RBSA

CSM

FCU

MCS

AS

SMU

CTU

EPK

Trouble  
Check Plus

HMG2500

HMG4000

ET-100-6

HTB

RFSa

HFS-BC

HFS-15

MFD-BC

MFS, MFD

HY-TRAX®  
Retrofit System

MFD-MV

MFS-HV

AMS, AMD

FS

AMFS

KLS, KLD

MCO

AKS, AKD

LSN, LSA, LSW

X Series

OLF Compact

OLF

OLF-P

NxTM

VEU

IXU

Triton-A

Triton-E

NAV

SVD01

SVD

OXS

Appendix

## Model Number Selection

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

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
FCU								

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

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	BOX 9
FCU	1	3	1	0	4	U	AS	1

= FCU 1310-4-U-AS-1

BOX 1	BOX 2	BOX 3
Series	Model	Contamination Code
FCU = Fluid Control Unit	1000 Series, 1 = 4 particle size channelst	ISO 4406: 1987 NAS 1638 > 2 µm > 5 µm > 15 µm > 25 µm 3 = ISO 4406: 1999 SAE AS 4059(D) > 4 µm(c) > 6 µm(c) > 14 µm(c) > 21 µm(c)

BOX 4	BOX 5	BOX 6	BOX 7
Housing	Fluids	Options	Supply Voltage
1 = for Hydraulic and lubrication fluids based on mineral oils  Hydraulic and lubrication 5 = fluids based on mineral oils as well as diesel	Mineral Oil, Synthetic Esters/PAO, Quintolubric, Cosmolubric (Consult factory for other fluid types.) 0 =	4 = with Integrated Pump	U = 24 V DC

  

BOX 8	BOX 9
Integrated	Power Supply Adapter
AS = AquaSensor (AS 1000 series)	100 to 240 V AC / 50/60 1 = 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
- Operation Manual & Calibration Certificate FluMoS Software
- USB Flash Drive

#### Accessories:

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