

CONTAMINATION MONITORS

FCU 1315

Fluid Control Units - Portable Models



Description

The Fluid Control Unit FCU 1315 series combines the advantages of the portable contamination measurement units with the measurement technology of the TestMate® Contamination Monitor (TCM) and TWS (TestMate® Water Sensor), in a portable, field-ready package for diesel fuel applications.

The FCU 1315 is a portable service unit and is designed for temporary measurement of solid particle contamination and water saturation in diesel storage, diesel transfer and diesel filling applications.

The FCU 1315 will measure contamination levels of diesel fuel, as well as mineral based hydraulic oils compatible with Viton® seals. The FCU 1315 is not compatible with water glycol fluids.

The integrated pump and the hoses with test point connections, which are included with the FCU 1315, allow operation on diesel fuel storage tanks and transfer circuits, as well as on hydraulic reservoirs, control circuits, and pressure circuits.

To ensure safe operation with diesel fuel, the FCU 1315 is equipped with a grounding wire, along with an integral temperature monitoring system to ensure the device switches off when operated above the critical temperature of diesel fuel (113°F, 45°C).

Features

- Particulate contamination is detected with an optical measurement cell
- Automatic measurement and display of cleanliness ratings as ISO 4406:1999; SAE AS 4059, and NAS 1638
- Measurement Accuracy +/- 1/2 ISO code
- Supply voltage 24 VDC
- Integrated pump for automatic control of oil flow
- Viscosity range: 33 to 1622 SUS (2 to 350 cSt)
- Water saturation (0 - 100%)

Applications

- Diesel Storage
- Diesel Transfer and Filling
- Diesel Service and Maintenance

Technical Specifications

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° to 212°F (-25 to 100°C)
Accuracy	±1/2 ISO class in the calibrated range / ± 2 % Full scale max for Water Sat. and Temp
Seal Material	FPM seals
Ambient Temperature Range	32 to 113°F (0 to 45°C)
Storage Temperature Range	-40 to 176°F (-40 to 80°C)
Dimensions (cover closed)	9.06" H x 16.14" L x 13"D
IP class	IP50 in operation IP67 closed
Weight	approx. 29 lbs (13 kg) without accessories
With Diesel According to ASTM D975 4-D or DIN EN 590	IN: 0 psi (0 bar) OUT: 0 psi (0 bar)
Hydraulic Data	
Hydraulic Fluid Operating Pressure	in: -7.25 to 650 psi (-0.5 to 45 bar) out: 0 to 7.5 bar (0 to .5 psi)
with Adaptor for Pressure Lines	in: 15 to 345 bar / 217 to 5000 psi out: 0 to 0.5 bar / 0 to 7.5 psi
Pressure Max.	5000 psi (345 bar)
Permissible Viscosity Range	3 to 1622 SUS (1.5 to 350 cSt)
Fluid Temperature Range	32 to 158°F (0 to 70°C), or up to 113°F (45°C) for diesel fuel
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

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.

Model Code

FCU 1 3 1 5 - 4 - U - AS - 1

Type	FCU = Fluid Control Unit
Series	1 = 1000 Series, 4 Particle Size Channels
Contamination Codes	3 = ISO 4406:1987; NAS 1638 / 2-5 µm, 5-15 µm, 15-25 µm, > 25 µm; can be switched to ISO 4406:1999; SAE AS 4059 (D) / > 4 µm(c), > 6 µm(c), > 14 µm(c), > 21 µm(c)
Housing	1 = For Mobile Use (Plastic Case with Appending Bag for Hoses and Cables)
Fluids	5 = Diesel Fuel According to ASTM D975 4-D / DIN EN 590, as well as Hydraulic and Lubrication Fluids Based on Mineral Oils
Options	4 = With Integrated Pump
Supply Voltage	U = 24 V DC
Integral Sensor	AS = AquaSensor AS 1000
Power Supply Adapter	1 = 100 to 240 V AC / 50/60 Hz / Single Phase

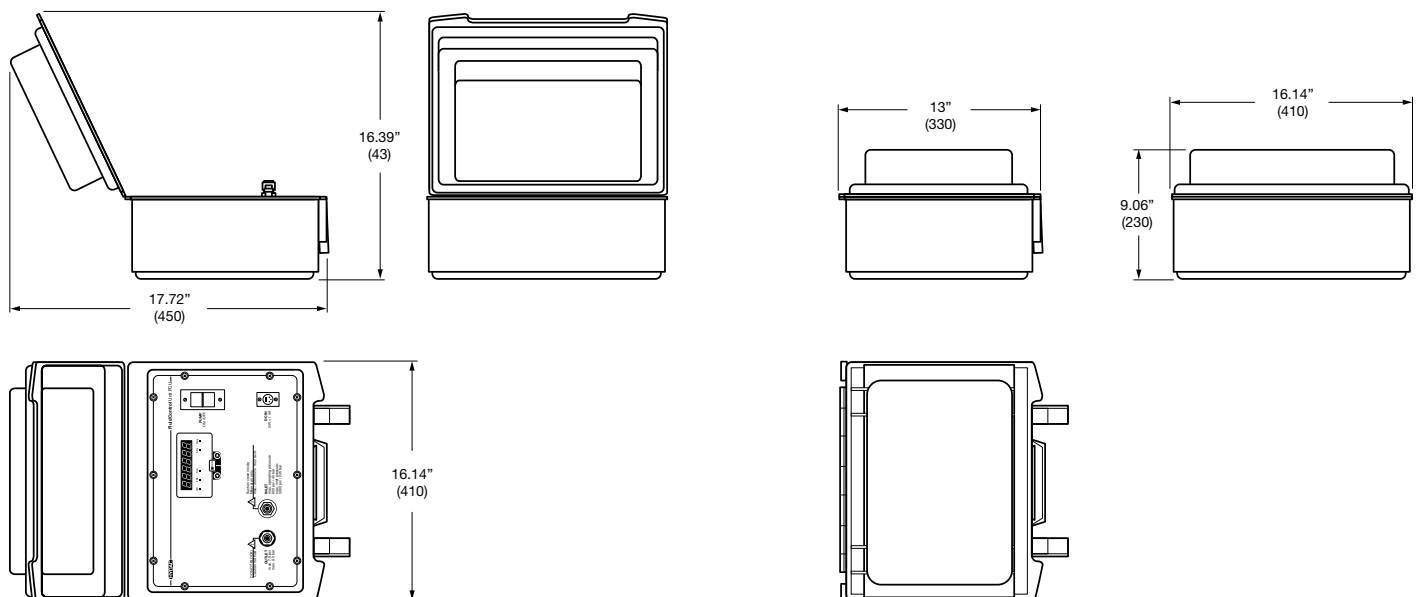
Scope of Delivery

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Items supplied with FCU 1315-4-U-AS-1 include:

- Fluid Control Unit (FCU 1315)
- Power supply AC adapter with connecting cables to supply voltage for Europe, USA/Canada, UK, Australia, and Japan
- Adapter for pressure lines
- Adapter for clear suction hose
- Inlet pressure hose with screw connection for 1620 test point, length = 2 meters (approx. 79 inches)
- Inlet suction pipe (metallic) for bottle sampling
- 2x suction/return hoses, clear, quick couple terminations, 1 meter (approx. 39 inches)
- Operation Manual & Calibration Certificate
- CD Rom of FluMoS Light Software
- USB Flash Drive (which includes Operation and Maintenance Instructions in other languages)
- Grounding Terminal
- Accessories:
- Battery Pack (approx. 5 hours of use) Part No. 3504605
- Field Verification Startup Kit - Part No. 3443253
- Field Verification Kit (fluid only) - Part No. 3443249

Dimensions



Dimensions shown are inches (millimeters) and for general information only. For complete dimensions please contact HYDAC to request a certified print.