



FluidControl Unit FCU 8111 /-Aviation

P/NO.: 3685083

Description

The FluidControl Unit FCU 8000 Aviation is a special variant of the FCU 8000 series for use in aircraft Ground Service.

The portable laser particle measuring instrument outputs contamination classes as per NAS 1638 or SAE AS4059 as required by the manufacturer tasks.

The FCU 8000 is connected to the aircraft via a Minimes DN 2 hose using the HYDAC "Rynglok Sampling Valve 1620".

Special features

- Conforms to Airbus specification for "Validation of hydraulic fluid portable particle counters" [Reference: X29RE0607915]
- Conforms to Airbus "Service Information Letter (SIL)" 29-081
- For partial fulfillment of Airbus task 12-32-29-281-001
 - Subtask 12-32-29-281-052: Contamination Analysis by particle count
- For partial fulfillment of Boeing task 20-40-03-200-802
 - Subtask 20-40-03-750-002: Limitation for solid particle contamination
- Integrated data storage for 3,000 measurements
- Integrated battery for self-sustaining operation
- Operating pressure up to 3,000 psi

Technical Data

| General data | |
|---|--|
| Self-diagnosis | Continuous measured value display with error indication in display |
| Measured variables | - Particle counts - NAS 1638 (2-5/5-15/15-25/25-50/50-100/>100 µm) - ISO 4406:1987 (>2/>5/>15 µm) - Flow rate |
| Data memory | 3000 measurements |
| Material of sealings | EPDM, suitable for types of Skydrol® and Hyjet® |
| Ambient temperature range | 0 ... 55 °C |
| Storage temperature range | -20 ... 85°C |
| Relative humidity | Max. 90 %, non-condensing |
| Protection class | III (safety extra-low voltage) |
| IP class | IP 40 |
| Weight | ~ 14 kg |
| Hydraulic data | |
| Calibration ranges | NAS 0 ... 12 ISO 0/0/0 ... 23/21/18 |
| Measurement range | Particle counts Maximum NAS 15 Maximum ISO 25/23/21 |
| Accuracy | ± ½ ISO class in the calibrated range |
| Operating pressure | INLET: 1 ... 250 bar OUTLET: maximum 3 bar |
| Hydraulic connectors | INLET: Minimes coupling, type 1620 OUTLET: connector DN 7 |
| Measurement flow rate | 40 ... 60 ml/min |
| Return flow rate | = measurement flow rate |
| Permissible viscosity range | 1 ... 100 mm²/s |
| Fluid temperature range | 0 ... 70 °C |
| Electrical data | |
| Supply voltage | 24 V DC, +/- 25 % |
| Network adapter (included in the scope of delivery) | Europe 230 V AC, 50Hz UK 240 V AC, 50Hz USA/CDN 120 V AC, 60Hz Australia 240 V AC, 50Hz Japan 100 V AC, 50Hz |
| Power consumption | 25 W max. |
| Battery | Integrated, operation duration ~ 6 hours |
| Printer | Dot-matrix printer integrated |
| Serial interface | RS232 |

Model code

FCU 8 1 1 1 - 1 - 1 / - Aviation

Type

FCU = FluidControl Unit

Resolution

8 = 6 particle size ranges

Measuring Ranges

1 = NAS 2-5/5-15/15-25/25-50/50-100/>100 µm
ISO >2/>5/>15 µm

Housing

1 = for portable use

Fluids

1 = for phosphate esters (HFD-R)

Options

1 = standard, without options

Supply voltage

1 = 24 V DC, with network adapter, included in the scope of delivery

Supplementary details

Aviation = for applications in the aviation industry

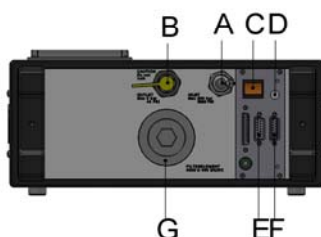
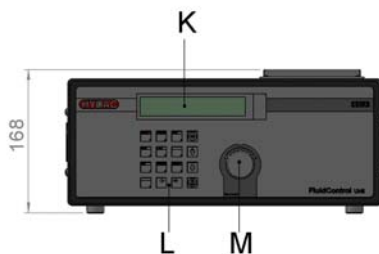
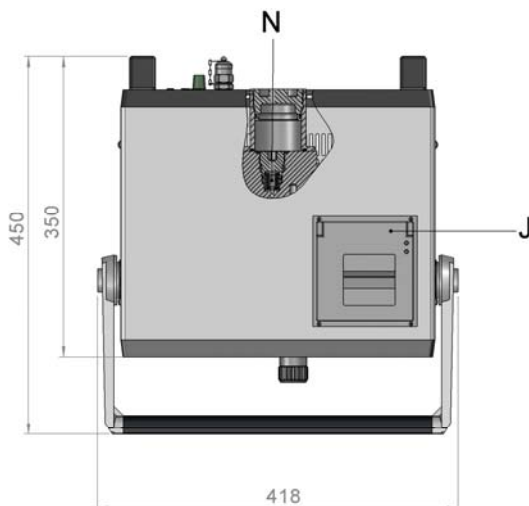
Scope of delivery

- FCU
- Power supply adaptor
- High pressure inlet hose
DN 2, 5 m long
- Low pressure outlet hose
DN 7, 2 m long
- Operating and Maintenance Instructions

Accessories

- Transport case,
part no.: 3799018
- Filter element replacement set,
part no.: 3800733

Dimensions



Legend

| Item | Designation |
|------|---------------------------------|
| A | High pressure port (Inlet) |
| B | Return port connection (Outlet) |
| C | On/Off switch |
| D | 24 V DC connection |
| E | Serial interface |
| F | Control port |
| G | Sealing cover |
| J | Dot-matrix printer |
| K | LC Display |
| L | Keyboard |
| M | Flow rate regulator |
| N | filter element |

Note:

The information in this brochure relates to the operating conditions and applications described.

In the event of deviating applications and/or operating conditions, please contact the respective HYDAC department concerned.

Subject to technical modifications.

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