

Fuel Flow Meter AIC - 6000



- Accuracy better than 1% (For accuracy better than 0.5 % please see our NEMO family)
- Diesel consumption flow meter for engines up to 735 KW (1000 HP)
- Ideal solution for mobile testing



The AIC-6000 has been designed for an easy mounting for mobile / road testing applications.

Made for pulsating liquids, the true consumption of the vehicle engine is measured by switching the return flow from the tank, directly to the fuel supply line.

Applications:

- Accurate fuel consumption measuring on mobile equipment such as trucks, construction and farming machines, buses, boats, trains
- Also be used on stationary engines

Suitable media:

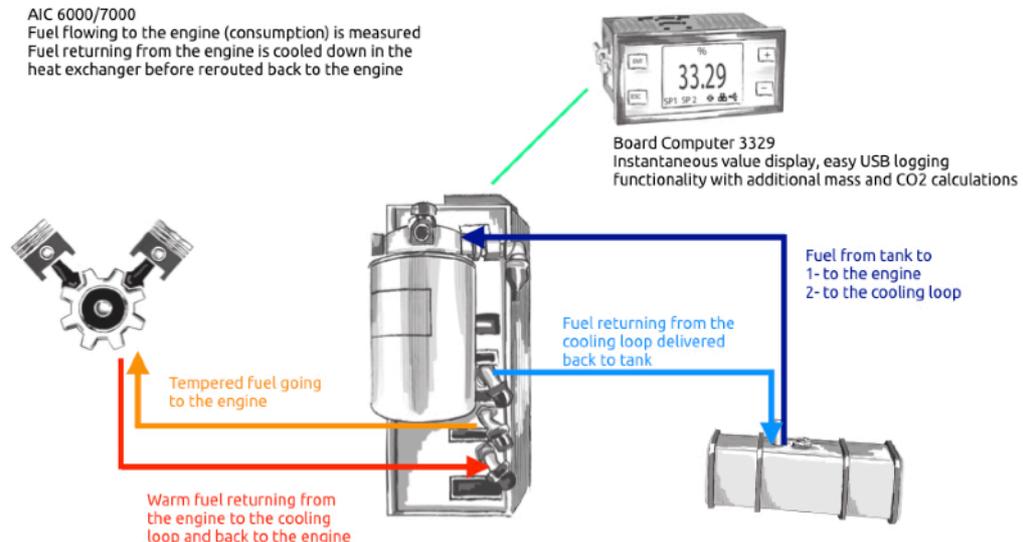
- Diesel
- Biodiesel: HVO, Biodiesel B100 and B30
- etc

Features and benefits:

- Up to 15% of fuel economy, through a constant control of the driver
- Reliable instantaneous consumption display and flow totalization
- Average fuel consumption visualization with 3 digits after coma
- Instrument protected via in-line fuel filter
- Mechanical meter of proven technology since more than 30 years
- No interferences with vehicle existing on-board electronic (CAN-Bus)
- Units are factory calibrated and ready to measure accurately right after installation. Free of additional setup.

System Setup

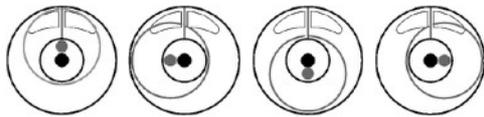
AIC 6000/7000
Fuel flowing to the engine (consumption) is measured
Fuel returning from the engine is cooled down in the heat exchanger before rerouted back to the engine



Technology

Rotary piston technology

After decades of experience, AIC SYSTEMS Ltd. has opted for the reliable volumetric flow meter technology. The rotary piston technology fits the fuel consumption measuring principle ideally. A single moving piston oscillates softly in a measuring chamber protected by a thin layer of fuel maintaining the piston self floating. This allows the meter to have the less possible mechanical friction, thus reduced wear. Under normal working conditions the line pressure loss ahead of the measuring cell is of max. 100 mbar.



Direct measuring principle

With the Direct Measurement principle, the installation of only one AIC Fuel Flowmeter is required. The fresh and cool fuel consumed is aspirated from the tank and its volume measured by the AIC fuel Flowmeter.

With this solution no fuel is returning back to the tank and the fuel passing through the AIC Volumetric measuring chamber represents precisely the real engine consumption.

The great benefit is that an AIC fuel consumption measuring system is ready to use right after installation.

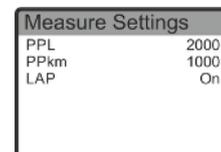
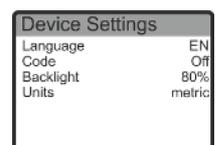
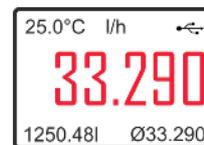
Typical AIC 6000 Installation

Flow Meter AIC 6000



Signal cable 5282.10

Board Computer BC 3329



Board Computer BC3329

The Board Computer BC3329 Display has input for Flow and Speed sensors. All measured values can be easily seen and written off the large display.

The Board Computer BC3329 LOG has in addition the manual input for a lap routine. With the LOG version all values are logged on the USB stick in CSV format for a better evaluation and further processing.

- View instantaneous fuel consumption
- Average fuel consumption (3 decimals)
- Fuel consumption accumulation
- Lap routine for later calculations of the individual lap characteristic
- Reading in Metric or US unit
- Easy control with start, stop logs and reset functions
- All settings are stored and will not be lost in the event of power failure
- Languages: English, German, French, Spanish and Portuguese

Date:	Time:	current Consumption:	Temperature:	total Consumption:	Ø Consumption:	Speed:	Ø Speed:	ODO:
22.5.19	07:57:09	149.6 l/h	40.5 °C	25033.7 l	148.6 l/h	2 km/h	1.7 km/h	11234 km
22.5.19	07:57:11	149.2 l/h	40.6 °C	25033.7 l	148.6 l/h	2 km/h	1.7 km/h	11234 km
22.5.19	07:57:13	148 l/h	40.4 °C	25033.8 l	148.6 l/h	3 km/h	1.7 km/h	11234 km
22.5.19	07:57:15	148.5 l/h	40.5 °C	25033.9 l	148.6 l/h	4 km/h	1.7 km/h	11234 km
22.5.19	07:57:17	148 l/h	40.5 °C	25034 l	148.6 l/h	6 km/h	1.7 km/h	11234 km
22.5.19	07:57:19	148.1 l/h	40.5 °C	25034.1 l	148.6 l/h	8 km/h	1.7 km/h	11234 km
22.5.19	07:57:21	147.9 l/h	40.5 °C	25034.2 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:23	145.9 l/h	40.5 °C	25034.2 l	148.6 l/h	12 km/h	1.7 km/h	11234 km
22.5.19	07:57:27	145.9 l/h	40.5 °C	25034.3 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:29	148.9 l/h	40.5 °C	25034.3 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:31	147.6 l/h	40.5 °C	25034.6 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:35	150.2 l/h	40.5 °C	25034.7 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:38	148.5 l/h	40.3 °C	25034.7 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:37	147.6 l/h	40.4 °C	25034.8 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:39	146.6 l/h	40.4 °C	25034.9 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:41	148 l/h	40.4 °C	25035 l	148.6 l/h	10 km/h	1.7 km/h	11234 km
22.5.19	07:57:43	145.2 l/h	40.4 °C	25035.1 l	148.6 l/h	10 km/h	1.7 km/h	11234 km

Technical data

AIC 6004 / 6008

General Data

Manufacturer	AIC SYSTEMS AG
Product designation	AIC 6004
	AIC 6008

Mechanical Data

Dimensions (L x l x p)	AIC 6004 / 6008
	390 x 135 x 310 mm / 15.4 x 5.3 x 12.2" (incl.filter)
Weights	AIC 6004: ca. 13.8 kg / 28.7 lb (incl.filter)
	AIC 6008: ca. 14.3 kg / 30.9 lb (incl.filter)

Materials

Flow meter - sensor	Brass, aluminium
O - rings	Viton™
Connectors	Chrome Steel M 16x1.5
Casing	Stainless steel

Flowmeter

Measurement principle	Volumetric, oscillating piston, with microprocessor controlled pulse emitter (Pat.AIC)
Measuring range	AIC 6004: 1 to 120 l/h
	AIC 6008: 4 to 240 l/h
Accuracy	Better than 1%
Repeatability	Better than 0.2 %
Admissible pressure	-1 to 6 bar
Mounting position	Verical
Operating temperature	-30.....90 C°
Ingress protection	Sensor, IP 67

Electrical connection

Power supply	8-28 VDC
Pulse signal	Rectangular NPN, open collector, pulse width 0,7 ms

Ordering structure

Model Type	Designation	Order code
Flow Meter		
AIC-6004	for engines up to 700 HP or 120 l/h	6004
AIC-6008	for engines up to 1000 HP or 240 l/h max.	6008
Options		
Bio fuel option	Fuel meter internal Bio-Fuel piping option	6000.BIO
Accessories		
Connector kits	Connector kit s1460.0 + 12.5m fuel hose	1460.0
Signal cables	Signal cable 10m (from AIC 6000 to BC 3329)	5282.10
	Signal cable 10m 1 end free	5812.10
	Mounting bracket SS for AIC-6000/7000	470 105
Board computer		
BC 3329 LOG	Bord Computer BC 3329 LOG for 20-28V DC No USB stick incl	3329.03
	Bord Computer BC 3329 LOG for 09-12V DC No USB stick incl	3329.04
BC 3329 Display	Bord Computer BC 3329 Display for 20-28V DC	3329.05
	Bord Computer BC 3329 Display for 09-12V DC	3329.06

All informations are subject to change.



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