

Fuel Flow Meter AIC 1200

- Diesel and gasoline consumption flow meter for engines up to Q max 52.8 gph _200 l/h
- Compact flow meter for a small foot print application



The AIC 1200 entry series of on-line flow meters, are especially designed to be mounted in engine compartment with a small foot print.

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

Applications:

- Small and medium cars and vans
- Construction, demolition machines
- Agriculture machines
- Stationary motors
- Motor boats

Media that can be measured:

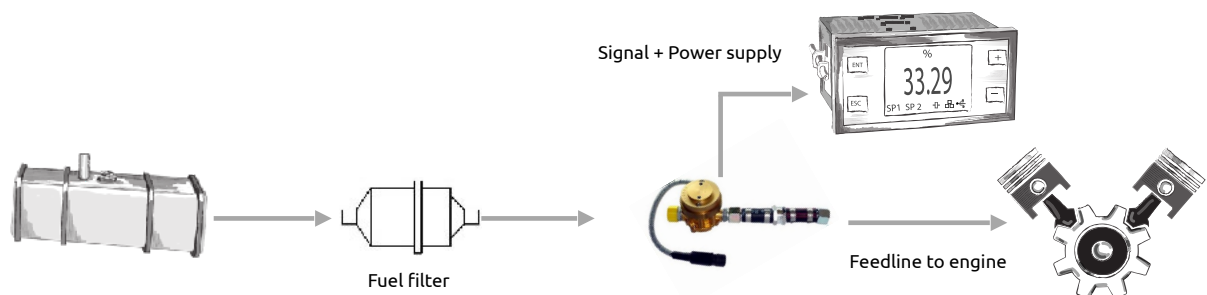
- Suitable for gasoline, diesel, HVO, ethanol, Biodiesel B100, B30, fuel light, medium, heavy, fuel blends, Naphtha, AdBlue, hydraulic oils, Lubricating oils. For any fluids according to ISO 8217-2012 standard.

Features and benefits:

- Up to 15 % of fuel economy, through a constant control of the driver
- Reliable instantaneous consumption display and flow totalisation
- Average fuel consumption visualisation with 3 digits after the decimal
- Mechanical meter of proven technology since more than 30 years
- No interferences with vehicle existing on-board electronic (CAN-Bus)
- AIC flow meters work on all fuel injection types including engines with fuel injection of latest generations



System Setup

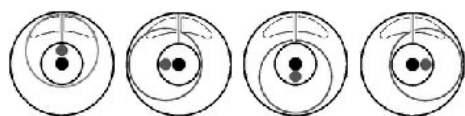


Sensor process connection: M16x 1.5

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.

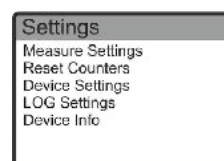
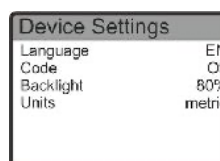
Typical AIC 1200 Installation

Flow Meter AIC 1200



Signal cable

Remote Display
RD 100



Remote Display RD 100

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

File: BC3329											
Ver.:	131										
FW Ver:	8.5										
PPL	2500										
PPM:	120										
Date:	Time:	Current Consumption	Temperature	Total Consumption	Q Consumption	Speed	Q Speed	ODO			
20.6.19	07:17:05	149.0 l/h	42.6 °C	15500.7 l	149.6 l/h	2 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:11	149.0 l/h	42.6 °C	15500.7 l	149.6 l/h	2 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:17	149.0 l/h	42.6 °C	15500.8 l	149.6 l/h	2 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:18	149.0 l/h	42.6 °C	15500.9 l	149.6 l/h	2 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:19	149.0 l/h	42.6 °C	15501.0 l	149.6 l/h	2 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:16	149.0 l/h	42.6 °C	15500.9 l	149.6 l/h	2 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:21	147.0 l/h	42.5 °C	15500.2 l	148.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:22	149.0 l/h	42.5 °C	15500.3 l	149.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:23	149.0 l/h	42.5 °C	15500.4 l	149.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:24	147.0 l/h	42.5 °C	15500.5 l	148.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:25	147.0 l/h	42.5 °C	15500.6 l	148.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:26	149.0 l/h	42.5 °C	15500.7 l	149.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:27	147.0 l/h	42.5 °C	15500.8 l	148.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:28	149.0 l/h	42.5 °C	15500.9 l	149.6 l/h	10 km/h	-1.1 km/h	11014 km			
20.6.19	07:17:29	149.0 l/h	42.5 °C	15501.0 l	149.6 l/h	10 km/h	-1.1 km/h	11014 km			

Technical data

AIC 1200 series

General Data

Manufacturer	AIC SYSTEMS Inc
Product designation	AIC 1204
	AIC 1208

Mechanical Data

Dimensions (L x l x p)	AIC 1204 : appr. 200 x 60 x 100 mm / 7.8 x 2.4 x 3.9" (without accessories)
	AIC 1208 : appr. 200 x 80 x 100 mm / 7.8 x 3.1 x 3.9" (without accessories)
Weights	AIC 1204 : ca 0.8kg / 1.7 lbs (sensor only)
	AIC 1208 : ca 1.2 kg / 2.6 lbs (sensor only)

Materials

Flow meter - sensor	Brass, aluminium
O - rings	Viton™
Connectors	Steel anodized, stainless steel, brass

Flowmeter

Measurement principle	Volumetric, oscillating piston, with microprocessor controlled pulse emitter
Flow range	AIC 1204: 0.4 to 80 l/h AIC 1208: 1.8 to 200 l/h
Max. permissible error of actual value	AIC 1204: $\pm 1\%$ 0.5- 1 l/h $\pm 5\%$, 1- 2 l/h $\pm 2.5\%$ AIC 1208: $\pm 1\%$ 2- 4 l/h $\pm 5\%$, 4-5 l/h $\pm 2\%$
Repeatability	Better than 0.2 % of reading
Admissible pressure	-1 to 6 bar
Mounting position	Indifferent
Operating temperature	-20.....80 C°
Ingress protection	Sensor and electronic, IP 64

Electrical connection

Power supply	8 - 28 VDC
Pulse signal	NPN open -collector; square 0.7 ms pulse width
Pulse rate	AIC 1204: 200 ppl
	AIC 1208 : 80 ppl
Resolution	Lower than model e.g. AIC 900

Ordering structure

Model Type

Flow Meter

AIC 1204

200 ppl and for engines with Q max 21.1 gph _ 80 l/h

AIC 1208

80 ppl and for engines with Q max 52.8 gph _200 l/h

Accessories

Connector kits

Connector kit

Transport case

Transport box 400 x 300 x 90 mm, with carrying handle

Signal cables

Signal cable 10m (from AIC 1200, 800, 900, 4000 to BC 3329)

Signal cable 10m 1 end free

RD100

Remote Display RD 100 for 20-28V DC No USB stick incl

As alternative:

BC 3329

Bord Computer BC 3329 for 20-28V DC

RD 100

Front view:



Back view:



Optional:

Rugged aluminum housing with external USB A port



All informations are subject to change.



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