

Fuel Flow Meter AIC - 1200 series



- Diesel or gasoline consumption flow meter for engines up to 515 KW (700 HP)
- Compact flow meter for little room conditions

The AIC -1200 series are on-line flow meters, especially designed to be mounted in engine compartment with little room conditions. 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:

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

Media that can be measured:

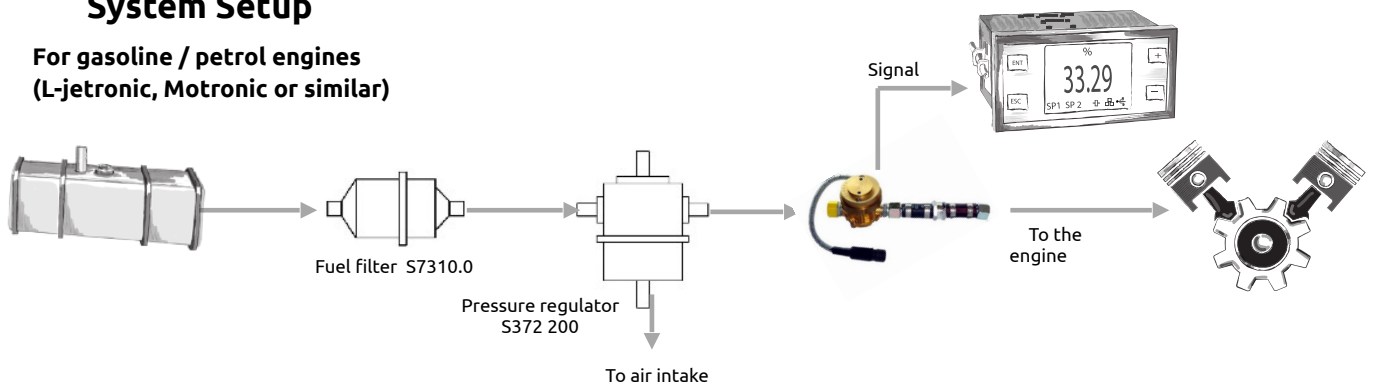
- Diesel
- Gasoline / petrol
- Bio-fuel
- Liquid gas

Features and benefits:

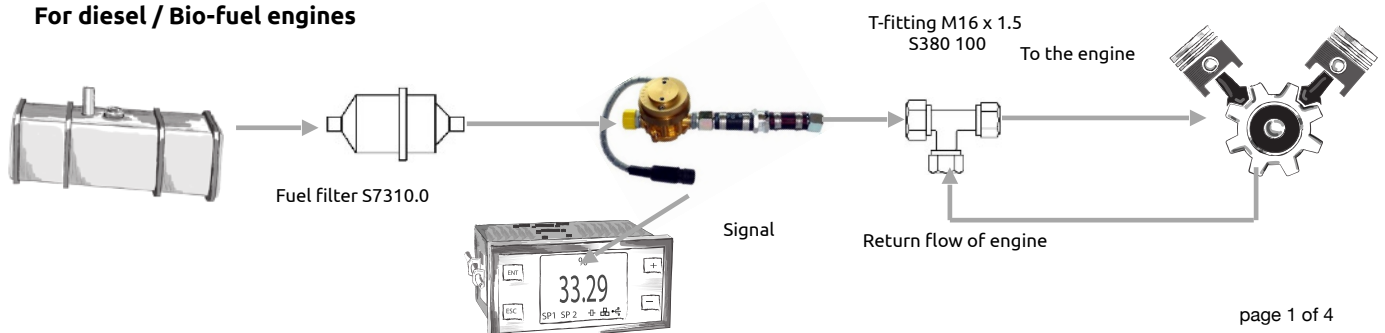
- Up to 15 % of fuel economy, through a constant control of the driver
- Reliable instantaneous consumption display and flow totalisation
- Average fuel consumption visualisation with 3 digits after coma
- Mechanical meter of proven technology since more than 30 years
- No interferences with vehicle 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

For gasoline / petrol engines
(L-jetronic, Motronic or similar)



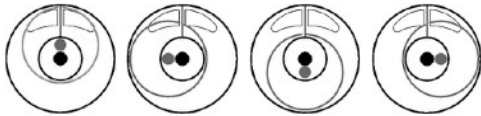
For diesel / Bio-fuel engines



Technology

Rotary piston technology

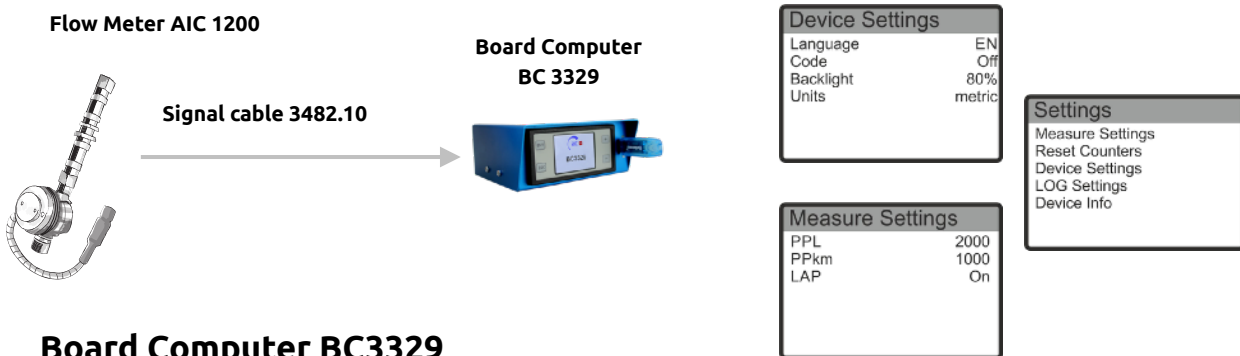
After decades of experience, AIC SYSTEMS Ltd. has opted for the reliable volumetric flow meter technology. The rotary piston technology fits the fuel consumption measuring principle ideally. A single moving piston oscillates softly in a measuring chamber protected by a thin layer of fuel maintaining 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



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

Type: BC3329										
Serial: 131										
Fuel Visc: 9.5										
PPL: 2000										
PPkm: 175										
Date:	Time:	current Consumption:	Temperature:	total Consumption:	Ø Consumption:	Speed:	Ø Speed:	ODO:		
22.5.19	01:57:09	148.6 l/h	40.5 °C	25033.7 l	148.6 l/h	2 km/h	1.7 km/h	11234 km		
22.5.19	01:57:11	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	01:57:13	149 l/h	40.6 °C	25033.8 l	148.6 l/h	3 km/h	1.7 km/h	11234 km		
22.5.19	01:57:15	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	01:57:17	148 l/h	40.5 °C	25034 l	148.6 l/h	6 km/h	1.7 km/h	11234 km		
22.5.19	01:57:19	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	01:57:21	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	01:57:23	145.9 l/h	40.5 °C	25034.2 l	148.6 l/h	10 km/h	1.7 km/h	11234 km		
22.5.19	01:57:27	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	01:57:29	149.9 l/h	40.5 °C	25034.3 l	148.6 l/h	10 km/h	1.7 km/h	11234 km		
22.5.19	01:57:31	147.9 l/h	40.5 °C	25034.4 l	148.6 l/h	10 km/h	1.7 km/h	11234 km		
22.5.19	01:57:33	150.2 l/h	40.2 °C	25034.7 l	148.6 l/h	10 km/h	1.7 km/h	11234 km		
22.5.19	01:57:35	148.5 l/h	40.2 °C	25034.7 l	148.6 l/h	10 km/h	1.7 km/h	11234 km		
22.5.19	01:57:37	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	01:57:39	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	01:57:41	148 l/h	40.4 °C	25035 l	148.6 l/h	10 km/h	1.7 km/h	11234 km		
22.5.19	01:57:43	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 1200 series

General Data

Manufacturer	AIC SYSTEMS AG
Product designation	AIC 1204 HR
	AIC 1208 HR

Mechanical Data

Dimensions (L x l x p)	AIC 1204 HR : appr. 200 x 60 x 100 mm / 7.8 x 2.4 x 3.9" (without accessories)
	AIC 1208 HR : 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 (Pat.AIC)
Measuring range	AIC 1204: 1 to 80 l/h
	AIC 1208: 4 to 200 l/h
Accuracy	Better than 1% of reading
Repeatability	Better than 0.2 % of reading
Admissible pressure	-1 to 6 bar
Mounting position	Indifferent
Operating temperature	-30.....90 C°
Ingress protection	Sensor and electronic, IP 67

Electrical connection

Power supply	8 - 28 VDC
Pulse signal	Rectangular NPN, open collector, pulse width 0,7 ms
Pulse rate	AIC 1204: 2000 ppl
	AIC 1208 : 804 ppl

Ordering structure

Model Type	Designation	Order code
Flow Meter		
AIC 1204 HR	2000 ppl for engines up to max.300 HP or 80 l/h	S1204.HR
AIC 1208 HR	804 ppl for engines up to max. 700 HP or 200 l/h	S1208.HR
Accessories		
Connector kits	Connector kit (diesel with T-quick coupling)	S380 100
	Connector kit	S380 250
Bio fuel option	Fuel meter internal Bio-Fuel piping option	1200.BIO
Transport case	Transport box 400 x 300 x 90 mm, with carrying handle	460 115
Signal cables	Signal cable 10m (from AIC 1200, 800, 900, 4000 to BC 3329)	3482.10
	Signal cable 10m 1 end free	5620.10
BC 3329		
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.



AIC SYSTEMS AG
 Ringstrasse 9
 4123 Allschwil
 Switzerland
 T +41 61 481 84 39
www.flowmeter-aic.com
info@flowmeter-aic.com