

Fuel Flow Meter AIC - 800



- Accuracy better than 1 % (For accuracy better than 0.5% see AIC NEMO family)
- Diesel consumption flow meter for engines up to 515 KW (700 HP)
- Quick and easy installation
- Ideal for short time test period

The AIC-800 fuel and diesel flow meter series is designed for mobile and stationary fuel consumption applications and recommend for short time test period.

Equipped with rapid quick coupling for the fuel return line, its installation is quick and easy. It is a great product for conducting short time testing, mostly when quick installation is required.

Applications:

- Small, medium and large trucks
- Buses
- Construction, demolition machines
- Agriculture machines

Media that can be measured:

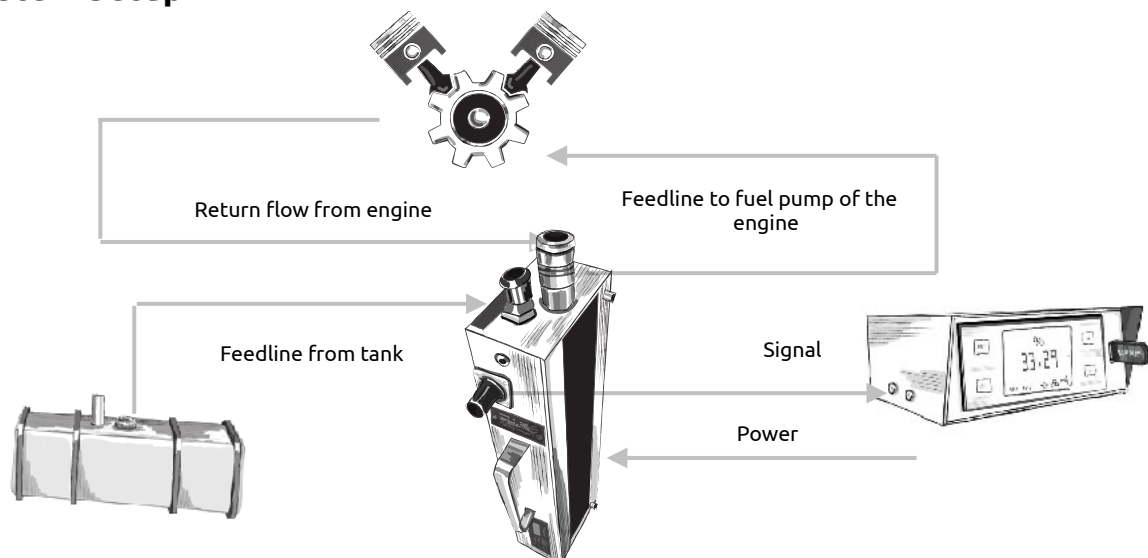
- Diesel
- Bio-fuel
- Liquid gas

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
- 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)
- AIC flow meters work on all fuel injection types including engines with fuel injection of latest generations
- Units are factory calibrated and ready to measure accurately right after installation. Free of additional setup.



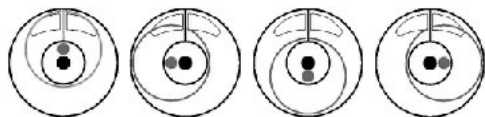
System Setup



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.



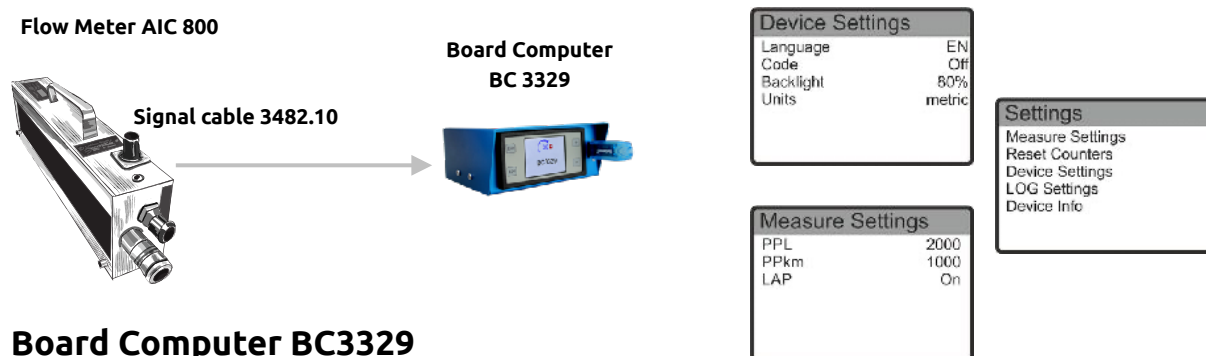
Direct measuring principle

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 800 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

Table: BC3329									
Set Pt:	001								
FW Ref:	0.0								
PPL:	2000								
PPkm:	1000								
Date:	Time:	current Consumption	Temperature:	total Consumption	Q Consumption	Speed	Q Speed	Q Speed	Q Speed
20.6.19	07:17:00	149.0 l/h	40.6 °C	25200.7 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:11	149.2 l/h	40.6 °C	25200.7 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:15	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:16	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:17	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:18	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:19	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:20	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:21	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:22	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:23	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:24	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:25	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:26	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:27	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:28	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:29	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:30	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:31	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:32	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:33	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:34	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:35	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:36	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:37	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:38	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:39	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:40	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:41	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h
20.6.19	07:17:42	149.1 l/h	40.6 °C	25200.9 l	149.0 l/h	2 km/h	1.1 km/h	1.1 km/h	1.1 km/h

Technical data

AIC 804 and 808

General Data

Manufacturer	AIC SYSTEMS AG
Product designation	AIC 804
	AIC 808

Mechanical Data

Dimensions (L x l x p)	AIC 804 /808
	141 x 135 x 60 mm / 16.1 x 5.3 x 2.4"
Weights	AIC 804 ca. 3.7 kg / 8.1 lb
	AIC 808 ca. 4.0 kg / 8.8 lb

Materials

Flow meter - sensor	Brass, aluminium
O - rings	Viton™
Connectors	Steel anodized, stainless steel, brass
Casing and mounting bracket	Stainless steel and aluminium
Tubing (internal)	NBR

Flowmeter

Measurement principle	Volumetric, oscillating piston, with microprocessor controlled pulse emitter (Pat.AIC)
Measuring range	AIC 804: 1 to 80 l/h /
	AIC 808: 4 to 200 l/h
Accuracy	Better than 1%
Repeatability	Better than 0.2 %
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

Ordering structure

Model Type	Designation	Order code
Flow Meter		
AIC-804	for engines up to max. 220 KW (300 HP) 2000 ppl	804
AIC-808	for engines up to max. 515 KW (700 HP) 804 ppl	808
Accessories		
Connector kits	Connector kit 22 pcs standard delivered in plastic bag	1450.1
	Universal connection kit for AIC 800 series	380 200
Bio fuel option	Fuel meter internal Bio-Fuel piping option	888.BIO
Mounting bracket	For permanent or temporary mount on vehicle frame, aluminium	888 100
Transport case	Transport and protection case: 560 x 420 x 140 mm	460 118
Signal cables		
	Signal cable 10m (from AIC 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.



www.flowmeter-aic.com

AIC SYSTEMS AG

Ringstrasse 9

4123 Allschwil

Switzerland

T +41 61 481 84 39

info@flowmeter-aic.com