

## FUEL FLOW METER AIC - 904 / 908 VERITAS®

**Diesel consumption flow meter for  
engines up to 662 KW (900 HP)  
Permanent mounting system, ideal for  
fleet management systems**

888  
Instruktor

900  
VERITAS®

1000

4000  
VERITAS®

5000  
Fuel flow  
Master

6000  
Swissline

FS

Board  
Computer  
and  
Totalizer



The AIC-900 VERITAS® flow meter has been designed for a permanent mounting for the fleet management whereas the cumulated values can be monitored.

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.

### Application

- Medium and large trucks, buses, building machines, tractors, boats, etc.

### Media that can be measured

- any fuel oil, incl. any bio-fuel oil.

### Features and benefits

- **Up to 15 % of fuel economy, through a constant control of the driver**
- Reliable display of flow totalising
- Instrument protected via in-line fuel filter
- Mechanical meter of proven technology since more than 20 years
- No interferences with vehicle existing on-board electronic (CAN-Bus)
- AIC flow meters works on all fuel injection type (except systems with open injectors, Cummins HPI)
- Suitable for engines with fuel injection of latest generation

CE certified  
EME Test according  
to 95/54/CE directives

## Measuring Systems

### A complete measuring systems consist of :

- flow meter AIC-904, 908 or 908 S
- fuel oil filter (included)
- totalizer AIC-RT2
- cables for electrical connection
- couplings for installation



## Measuring principle

Each unit is produced as one module in the interests of simple installation. All holders and housing parts are made of stainless steel or anodized aluminium.

### Fuel flow measurement:

The consumption of fuel for engines can be measured by 2 ways :

- Direct (means that there is no fuel returning to the tank, the return flow is reinjected in the fuel circulation flow of the injection circuit.
- Differential (means that the supply and return flow are subtracted. The return fuel flow goes back in the tank.

AIC SYSTEMS Ltd. has strongly developed the best measuring solution : the **DIRECT flow** measurement. This solution allows a true measurement of the fuel flow, within a uncertainty better than  $\pm 1\%$  ( $\pm 0.2\%$  repeatability). The differential fuel flow allows only an accuracy of best 5 % or worse.

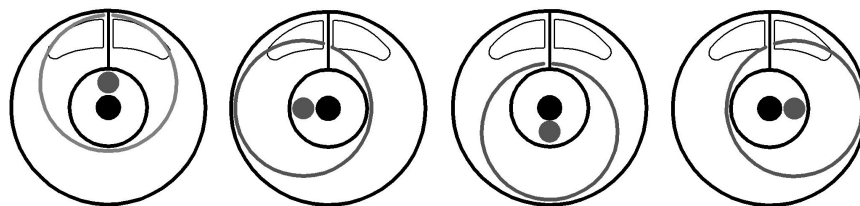
### High pulse rate output:

The control and pulse technology is based on the latest SMD technology and is moulded to be water tight and vibration resistant (Pat. AIC). This allows high pulse count per flow quantity unit. The AIC-904 VERITAS® is supplied with 200 ppl, and the AIC-908 VERITAS® is supplied or 80 ppl (pulses per one litre).

### Rotary piston technology:

After decades of experience, AIC SYSTEMS Ltd. make his choice for the most reliable volumetric flow meter technology existing, with the less weir and moving parts.

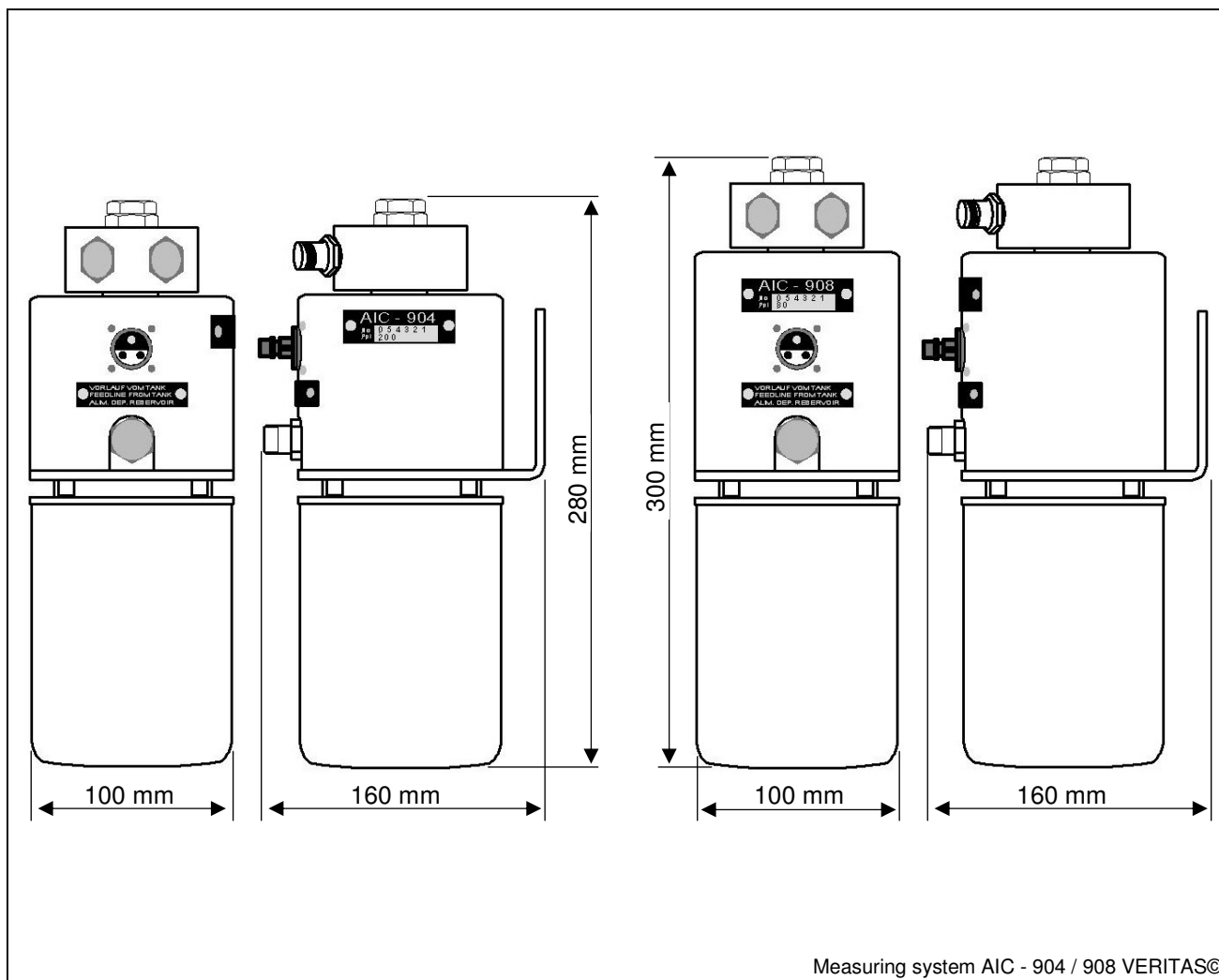
The rotary piston technology fits the fuel consumption measuring principle perfectly, a single moving piston oscillates softly in a measuring chamber protected by a thin layer of fuel maintaining the piston self floating. This allows the meter to have the less possible mechanical friction. Under normal working conditions the pressure loss ahead of the measuring cell is of max. 100 mbar.



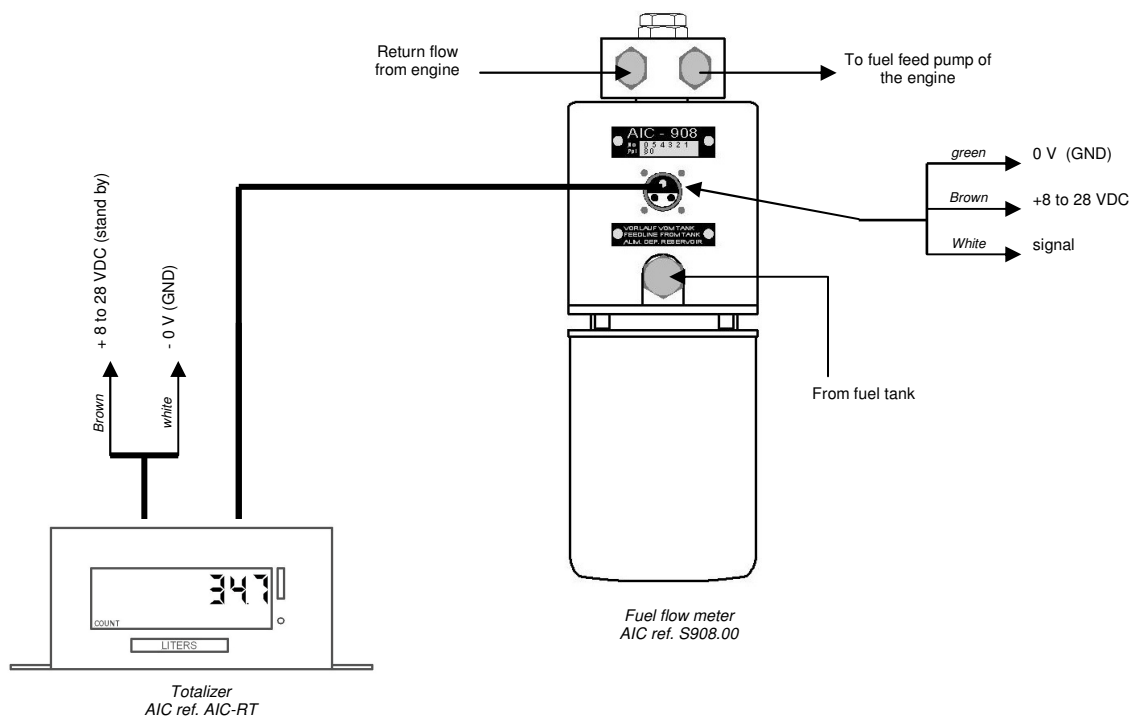
## Calibration

Each flow meter unit, is subject to careful calibration at the factory. Customer calibration can also be saved on simple demand.

## Dimensions



## Installation



## Technical data

### AIC 904 et 908 VERITAS©

#### General data

Manufacturer	AIC SYSTEMS AG
Product designation	AIC-904 VERITAS© AIC-908 VERITAS© AIC-908 S VERITAS©

#### Mechanical data

Dimensions (L x l x p)	AIC-904 280 x 100 x 160 mm (incl. filter) AIC-908 / AIC-908 S 300 x 100 x 160 mm (incl. filter)
Weights	AIC-904 2,5 kg (incl. filter) AIC-908 & AIC-908 S 2,8 kg (incl. filter)

#### Materials

Flow meter sensor	Brass, aluminium
O-rings	Viton®
Connectors	Steel protection TAAC3, stainless steel, anodised aluminium
Casing	Anodised Aluminium
Mounting bracket	Stainless steel

#### Flow meter

Measurement Principle	Volumetric, oscillating piston, with microprocessor controlled pulse emitter (Pat. AIC)
Measuring range	AIC-904 : 1 to 80 l/h AIC-908 : 4 to 200 l/h AIC-908 S : 4 to 240 l/h
Accuracy	better than 1 % of reading
Repeatability	better than 0.2 % of reading
Admissible pressure	- 1 to 6 bar
Mounting position	vertical
Operating temperature	-30 ... 90 °C
Ingress protection	Sensor, IP 67

#### Electrical connection

Power supply	8 - 28 VDC
Pulse signal	rectangular, duty cycle 50%
Pulse rate	AIC-904 : 200 ppl AIC-908 : 80 ppl AIC-908 S : 80 ppl

## Ordering structure

### Flow meter

<b>Model Type</b>	<b>Designation</b>	<b>Order code</b>
AIC-904 VERITAS®	for engines up to max. 220 KW (300 HP) 200 ppl, pulse rectangular, duty cycle 50%	S904.00
AIC-908 VERITAS®	for engines up to max. 515 KW (700 HP) 80 ppl, pulse rectangular, duty cycle 50%	S908.00
AIC-908 S VERITAS®	for engines up to max. 662 KW (900 HP) 80 ppl, pulse rectangular, duty cycle 50%	S908S.00

### Accessories

Connection kit	Universal connection kit CS-1, includes various connection fitting (metric), fuel hose not included	S1450.1
Fuel hose	Fuel hose UNIPRESS 9.5 x 18 mm, NBR reinforced (not for Bio-diesel purposes)	S1440.0
	Bio-Diesel fuel hose 10x 14 mm, PUR reinforced	S1540.0
Connection cable	6 m extension cable connecting the fuel oil meter to the remote totalizer RT2	5630.06
	10 m cable connecting the fuel oil meter with wires end free	5620.10
Thief proof protection	4 pcs, shrinking hose, 1 pc hose clip	S1475.0

### Board computer

#### Totalizes

AIC-RT2	without zero resetting	<b>References</b> S1550.0
AIC-RT2/KS	with zero resetting by key switch	S1570.0
	LCD display 8 digits, with backlight. Totalization and instantaneous consumption displayed Body made in stainless steel, dimensions 75 x 60 x 38 mm	



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