AIC 7000

NEMO
New Environmental Mastering Option

- **Accuracy better than 0.5% over the entire range**
- Mass flow meter designed for fuel consumption measurement on internal combustion engines
- Ease of use, robust and durable design more than 30 years
- Unique Swiss quality of the systems make them suitable for gasoline, diesel, biofuel and alcohol based fuel consumption measurements.

The AIC 7000 NEMO system is an integrated system for the measurement of engines (diesel engines) with supply and return for the fuel supply and motor-side arranged fuel pump (suction).

The measuring range is 0.2 to 250 l / h, and the power supply with 24V DC form the Board Computer 3329, the system can be operated in trucks directly from the vehicle battery. The AIC 7000 NEMO system can be easily integrated into the existing fuel circuit via optional fuel hoses with quick couplings.

On many engine types, the installed system not only provides for the fuel supply. All the functionality of the system consists of supplying fuel to the engine, returning the excess fuel back to the tank, and constantly circulating the fuel to cool the components. For a correct measurement of fuel consumption, the AIC 7000 NEMO system splits the original fuel circuit into two separate ones.

The result is an engine cycle and a tank cycle. This configuration allows the correct measurement of fuel consumption by the AIC 7000 NEMO sensor located between the tank and engine circuits. The measurement principle is a volumetric, oscillating piston, with microprocessor controlled electronics to emit pulses per litre consumption.

In order to avoid overheating and thereby gas bubbles during engine run-in, the AIC 7000 NEMO contains a heat exchanger for cooling the fuel. The integrated fuel pump in the AIC 7000 NEMO system provides the necessary fuel circulation to the engine and cooling at the same time. For trouble-free operation, the system is protected by an easily accessible front loaded fuel filter.

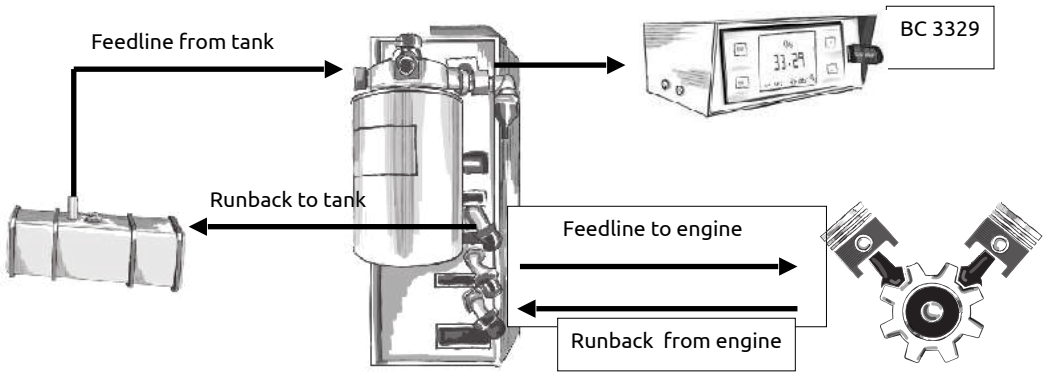
Applications:

- R&D testing: vehicle fuel consumption monitoring for medium and large trucks, buses, construction, demolition and agriculture machines
- Mobile tyre testing

Features and benefits:

- Together with the fuel measuring sensor you are reaching the highest accuracy for monitoring your vehicle consumption either for testing, billing application or fleet management.
- Data easily retrievable via a FAT 32 formatted quality USB key stick
- Robust housing for shock protection

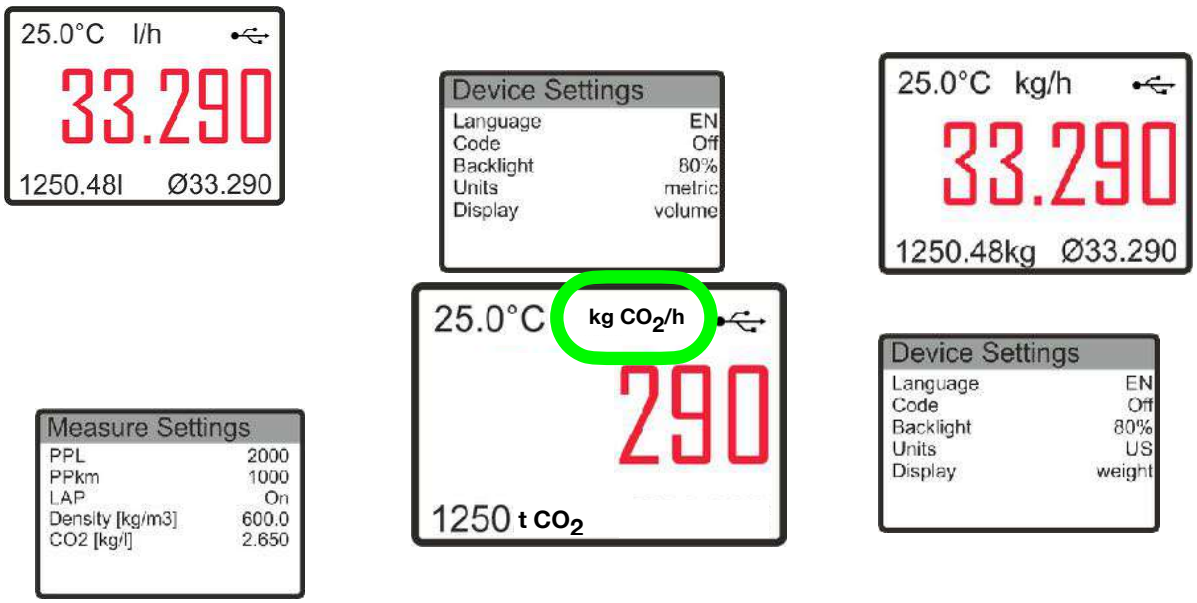
System Setup



Typical AIC 7000 NEMO Installation

Board Computer BC 3329 NEMO

On the Board Computer BC 3329 NEMO has in addition input for temperature and density. All measured values can be easily seen and written off the large display and are logged on the USB stick in CSV format.
For further use mass calculation with manual density entry (according to DIN 51757).



Technical data

	7008 NEMO	7004 NEMO
Engine KW / HP	735 KW / 1000 HP	515 KW / 700 HP
Flow range	0.3 to 250 liters / hour	0.2 to 120 liters / hour
Accuracy	< ± 0.5 %	
Repeatability	Better than 0.2 % of reading	
Pressure range:	-1 to 6 bar	
Signal	NPN open -collector; square 0.7 ms pulse width	
Housing	2 mm stainless steel 1.4301	
Ingress protection	IP 65	
Temperature probe	PT1000	
Materials	brass, aluminium, stanless steel	
Supply voltage through BC 3329	24 V DC	
CE-conformity:	2014/30/EU	
Dimensions (mm)	390 x 135 x 310 mm / 15.4 x 5.3 x 12.2” (incl.filter)	
Weight incl. filter	ca. 13.8 kg / 28.7 lb (incl.filter)	ca. 14.3 kg / 30.9 lb (incl.filter)
Warranty	1 year	

Service, maintenance and re-calibration

For trouble-free operation, the fuel filter must be replaced regularly. Access to the filter is easy as it is located on the front of the AIC 7000 NEMO system. Apart from a regular visual inspection, no further maintenance work needs to be carried out by the user. In any case, the fuel filter must be replaced regularly.
For quality assurance, it is recommended to recalibrate the AIC 7000 NEMO system every 12 months. The re- calibration is carried out on test benches of AIC Systems AG in Switzerland.

All informations are subject to change.

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