

Easy Fuel Flow Meter AIC - 700 NEMO



- Accuracy better than 0.5 %
- Diesel, Gasoline, Bio-fuel, Light oil, Alcohol fuels consumption flow meter
- Temporary or permanent mount
- PT 1000 temperature probe for fuel consumption in volume and mass flow as well as CO2 exhaustion

The AIC - 700 NEMO flow meter has been designed for a permanent or temporary mount on vehicles with small engine compartment. Fast and intuitive installation.



Applications:

- Diesel engine testing
- Small trucks
- Vans, mini-buses, mobilhomes
- Small agriculture and constructing machines
- Turbo-machinery development technology
- Compact sales tool to convince your customer to choose your vehicle

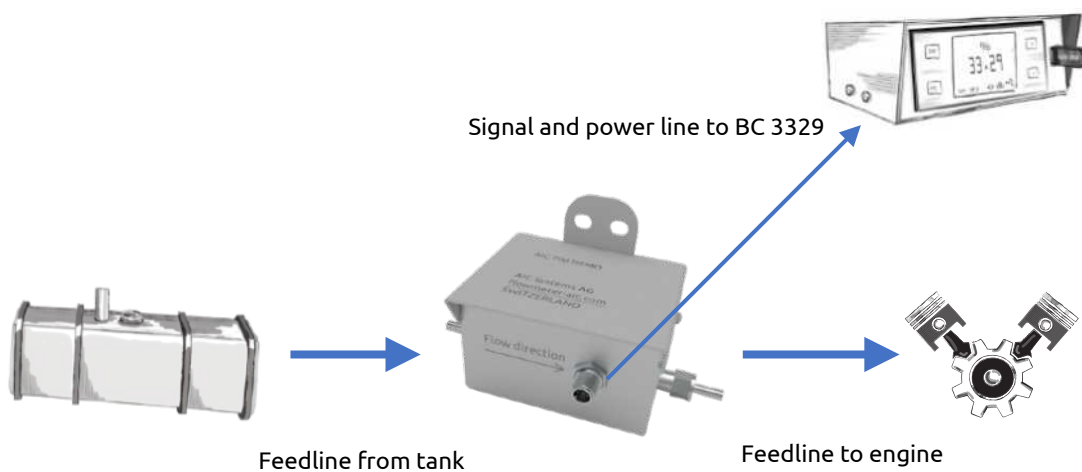
Media that can be measured:

- Diesel, gasoline, bio-fuel, light oil, alcohol fuels, cooling agent

Features and benefits:

- Highest accuracy for monitoring your equipment
- Small footprint and robust housing for shock protection
- New generation of mechanical flowmeters of proven technology since more than 40 years
- Excellent price-performance ratio
- AIC flow meters work on all fuel injection types including engines with fuel injection of latest generations

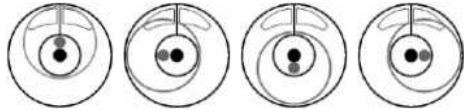
System Setup



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.



Typical AIC 700 NEMO Installation

Flow Meter AIC 700



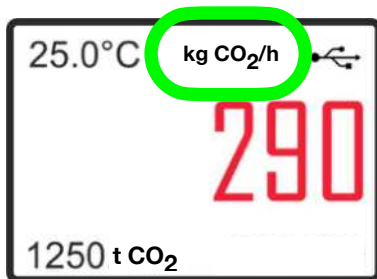
Signal cable 8282.10

Board computer BC 3329

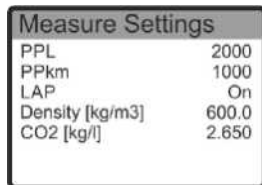
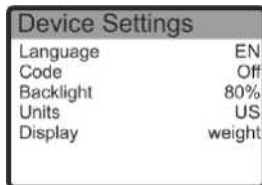


Board Computer BC3329 NEMO

On the Board Computer BC3329 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).



All data are available in the log file



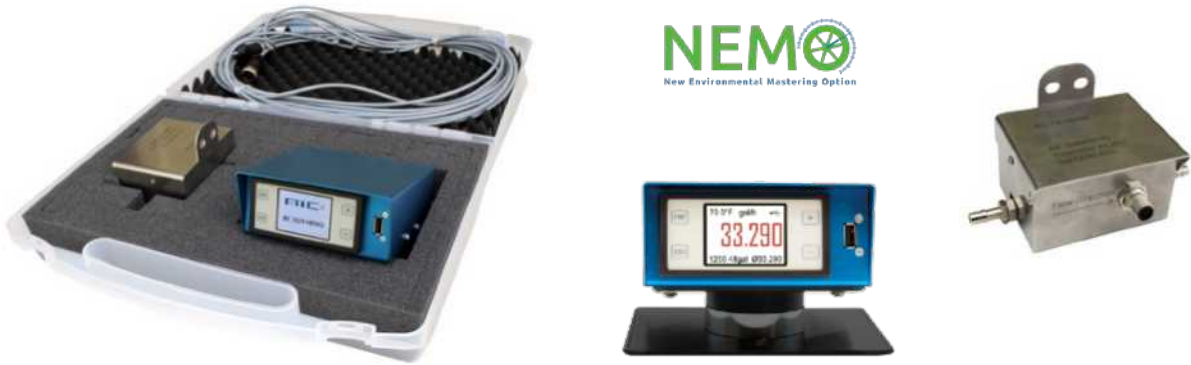
| Type: BC3329 | | | | | | | | | |
|--------------|----------|----------------------|--------------|--------------------|----------------|----------|-----------|------------|--|
| Serial | 131 | | | | | | | | |
| FW Ver. | 9.5 | | | | | | | | |
| PPL | 2000 | | | | | | | | |
| PPKm | 170 | | | | | | | | |
| Date: | Time: | Current Consumption: | Temperature: | Total Consumption: | Q Consumption: | Speed: | Q Speed: | CO2 | |
| 22.5.19 | 07:57:08 | 148.8 [m] | 40.9 °C | 29000.7 [l] | 148.8 [m] | 2 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:11 | 148.2 [m] | 40.8 °C | 29002.7 [l] | 148.8 [m] | 2 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:13 | 148 [m] | 40.8 °C | 29003.8 [l] | 148.8 [m] | 3 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:15 | 148.5 [m] | 40.5 °C | 29005.9 [l] | 148.8 [m] | 4 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:17 | 148 [m] | 40.5 °C | 29008 [l] | 148.8 [m] | 6 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:19 | 148.1 [m] | 40.5 °C | 29009.1 [l] | 148.8 [m] | 8 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:21 | 147.8 [m] | 40.5 °C | 29009.2 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:23 | 148.9 [m] | 40.5 °C | 29009.2 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:27 | 148.9 [m] | 40.5 °C | 29009.2 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:29 | 148.9 [m] | 40.5 °C | 29009.5 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:31 | 147.8 [m] | 40.5 °C | 29009.9 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:33 | 148.2 [m] | 40.3 °C | 29009.7 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:35 | 148.5 [m] | 40.3 °C | 29009.7 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:37 | 147.8 [m] | 40.4 °C | 29009.8 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:39 | 148.6 [m] | 40.4 °C | 29009.9 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:41 | 148 [m] | 40.4 °C | 29009 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |
| 22.5.19 | 07:57:43 | 148.2 [m] | 40.4 °C | 29009.1 [l] | 148.8 [m] | 10 [m/s] | 1.7 [m/s] | 11254 [kg] | |

AIC 700 NEMO SET

AIC 700 NEMO Set is delivered in a protective transport case and consists of:

- AIC 700 NEMO
- BC 3329 NEMO
- Cabin stand
- 5m signal cable

Ordering number: 704.SET



Ordering structure

| Model Type | Designation | Order code |
|------------------|---|------------|
| AIC 700 NEMO | for engines with a Q max 21.1 gph _ 80 l/h or app. 300 HP | 704 |
| AIC 700 NEMO SET | Complete solution with 5 components for engines up to 300 hp | 704.SET |
| Signal cables | Signal cable 10m (from AIC 700 to BC 3329) | 8282.10 |
| Connection kit | Standard connection kit with T-piece for return line | 380 700 |
| BC 3329 NEMO | Bord Computer BC 3329 NEMO for 20-28V DC No USB stick incl | 3329.01 |
| Presse Ride | Bord Computer 3329 NEMO for 20-28V AC/DC with 3m cable and a palm button, cabin stand is included without USB stick. | 3329.10 |

Technical data

General Data

| | |
|---------------------|----------------|
| Manufacturer | AIC SYSTEMS AG |
| Product designation | AIC 704 NEMO |

Mechanical Data

| | |
|------------------------------|--------------------------------------|
| Dimensions (l x w x h) | 165 x 90 x 90 mm / 6.5 x 3.5 x 3.5 " |
| Weights | ca. 1.0 kg / 2.2 lb |
| Hydraulic nozzles connection | 8,5 mm _ 1/3 " |

Materials

| | |
|---------------------|--|
| Flow meter - sensor | Brass, aluminium |
| O - rings | Viton™ |
| Connectors | Steel protection TAAC3, stainless steel, |
| Housing | 2 mm stainless steel 1.4301 |

Flowmeter

| | |
|-----------------------|--|
| Measurement principle | Volumetric, oscillating piston, with microprocessor controlled pulse emitter (Pat.AIC) |
| Measuring range | 1 to 80 l/h _ 0.26 to 22 gph |
| Accuracy | ±0.5 % |
| Repeatability | 0.2% |
| Admissible pressure | -1 to 25 bar |
| Mounting position | Horizontal |
| Operating temperature | -30.....90 C° |
| Ingress protection | Sensor and electronic, IP 65 |

Electrical connection

| | |
|------------------|--|
| Power supply | 8 - 28 VDC |
| Pulse signal | NPN open -collector; square 0.7 ms pulse width |
| Signal connector | M 12 / 8 pin |

All informations are subject to change.



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