DIGITAL METER AND PULSER

FOR ANTIFREEZE AND WINDSHIELD WASHING LIQUID
Flow rate 40 l/min

FOR DIESEL FUEL
Flow rate 90/120 l/min

FOR OIL AND ALLIED PRODUCTS
Flow rate 35/70/100 l/min

ADVANCED FLUID MANAGEMENT SOLUTIONS

DESIGNED AND MANUFACTURED AT RAASM ITALY
When the fluid enters in the oval gear chamber through the inlet “A”, the gears start to rotate. The gears start to rotate because of the pressure of the fluid which comes out from the outlet “B”. Each rotation corresponds to a determinate quantity of fluid.
Correct dimensional tolerances between gears and chamber grant the reliability and the accuracy of the meter. 4 magnets, placed on one of the two gear, give the pulses to the microprocessor during every rotation.
intends to “offer the best” through a continuous improvement in terms of performance, functionality and product’s reliability.

The new electronic meter is the result of intense research and testing, combining modern manufacturing technology with a simple and intuitive design.

All the components are produced in Italy, including the electronic board. Suitable for use in indoor and outdoor environments, the aluminium body is rugged and resists contamination. The sealed electronic board provides continuous reliability.
**TECHNICAL Features**

- Aluminium body with special coating suitable also for antifreeze and windshield washing fluid
- Sealed battery compartment assures continuous electronic contact in rugged working conditions
- Robotically welded electronics board equipped with a wide LCD screen
- The use of 4 magnets provides superior control and precision measurement
- Double layer protective cover provides an air tight seal with the aluminium body
- Oval gears made of POM or PVDF are highly resistant to fatigue and offer excellent chemical resistance
- A ribbon wire connection between the buttons and the electronic board provide superior connectivity
- Raised buttons on the membrane produce an improved operational feel
- Meter uses standard “off the shelf” two 1.5 v AAA batteries
- Total may be multiplied by x10 - x100 - x1000

**PERFORMANCE**

- Battery level indicator
- 5 digit resettable totalizer
- 6 digit non resettable totalizer and instant flow rate
- Total may be multiplied by x10 - x100 - x1000

**Unit:** Litre - Gallon - Pint - Quarter

**FLOW RATE indication**

**TOTAL or RESET TOTAL**

**Unit:** Litre - Gallon

- Precision ± 0.3%
- Repeatability ± 0.2%
- Pressure loss < 0.5 bars at max flow rate
- Temperature ΔT -10 ÷ +60 °C (-14 ÷ +140 °F)
- The display shows simple and intuitive information to allow easy use
RAASM’s digital meters, besides gauging the liquid delivered, can show instant flow rates, provide a reset total and allow the setting of different units of measurement. RAASM’s digital meters are suitable for a wide variety of fluids, from low to medium to high viscosities, including lubricants, diesel fuel, antifreeze, window wash liquid and other fluids compatible with the material of the meter.

### Table: Specifications of RAASM’s Digital Meters

<table>
<thead>
<tr>
<th>Article</th>
<th>FOR OIL AND ALLIED PRODUCTS</th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Compatible fluids</strong></td>
<td>Oil and allied products</td>
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</tr>
<tr>
<td><strong>Body’s material</strong></td>
<td>Aluminium</td>
<td>Aluminium</td>
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</tr>
<tr>
<td><strong>Gear’s material</strong></td>
<td>POM</td>
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</tr>
<tr>
<td><strong>Inlet</strong></td>
<td>G 1/2” (f)</td>
<td>G 3/4” (f)</td>
<td>G 1” (f) + Flange</td>
</tr>
<tr>
<td><strong>Outlet</strong></td>
<td>G 1/2” (f)</td>
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</tr>
<tr>
<td><strong>Delivery</strong></td>
<td>1 - 35 l/min</td>
<td>1 - 70 l/min</td>
<td>1 - 100 l/min</td>
</tr>
<tr>
<td><strong>Max operating pressure</strong></td>
<td>70 bar</td>
<td>70 bar</td>
<td>70 bar</td>
</tr>
<tr>
<td><strong>Burst pressure</strong></td>
<td>200 bar</td>
<td>200 bar</td>
<td>200 bar</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td>± 0,3%</td>
<td>± 0,3%</td>
<td>± 0,3%</td>
</tr>
<tr>
<td><strong>Net weight</strong></td>
<td>0,485 kg</td>
<td>0,790 kg</td>
<td>1,100 kg</td>
</tr>
<tr>
<td><strong>Packing</strong></td>
<td>N° 1 - 0,0015 m³</td>
<td>N° 1 - 0,0018 m³</td>
<td>N° 1 - 0,005 m³</td>
</tr>
<tr>
<td><strong>Gross weight</strong></td>
<td>0,85 kg</td>
<td>1 kg</td>
<td>1,35 kg</td>
</tr>
<tr>
<td><strong>Dimensions (A - B - C)</strong></td>
<td>94 - 90 - 55 mm</td>
<td>94 - 91 - 77 mm</td>
<td>109 - 91 - 99 mm</td>
</tr>
</tbody>
</table>

**Note:** Not type-approved for public use.

Meters mounted on line.
### FOR DIESEL FUEL

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
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<tbody>
<tr>
<td>33710</td>
<td>Diesel fuel</td>
</tr>
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<td>33711</td>
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</tbody>
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### FOR DIESEL FUEL

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</tbody>
</table>

### FOR ANTIFREEZE AND WINDSHIELD WASHING LIQUID

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>37780</td>
<td>Antifreeze and windshield washing liquid</td>
</tr>
<tr>
<td>37781</td>
<td>Antifreeze and windshield washing liquid</td>
</tr>
<tr>
<td>37782</td>
<td>Antifreeze and windshield washing liquid</td>
</tr>
</tbody>
</table>

### Dimensions

- **A**: 94 - 91 - 77 mm
- **B**: 109 - 91 - 99 mm
- **C**: 94 - 90 - 55 mm

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**Flow rate**

- **90 l/min**
- **120 l/min**
- **40 l/min**

**Net weight**

- **0,485 kg**
- **0,790 kg**
- **1,100 kg**

**Packing**

- **N° 1 - 0,0015 m³**
- **N° 1 - 0,0018 m³**
- **N° 1 - 0,005 m³**

**Gross weight**

- **0,85 kg**
- **1 kg**
- **1,35 kg**

**Accuracy**

- ± 0,3%
- ± 0,3%
- ± 0,3%

**Dimensions (A - B - C)**

- 94 - 91 - 55 mm
- 94 - 91 - 77 mm
- 109 - 91 - 99 mm

**Flow rate**

- **90 l/min**
- **120 l/min**
- **40 l/min**

**Max operating pressure**

- 70 bar
- 70 bar
- 70 bar

**Burst pressure**

- 200 bar
- 200 bar
- 200 bar

**Body’s material**

- Aluminium
- Aluminium
- Aluminium

**Gear’s material**

- POM
- POM
- POM

**Inlet**

- G 3/4” (f)
- G 3/4” (f)
- G 1/2” (f)

**Outlet**

- G 3/4” (f)
- G 3/4” (f)
- G 1/2” (f)

**Delivery**

- 1 - 35 l/min
- 1 - 70 l/min
- 1 - 100 l/min

**Compatible fluids**

- Oil and allied products
- Oil and allied products
- Oil and allied products

**N° 1 - 0,0015 m³**

- 1 kg
- 1 kg
- 1 kg

**N° 1 - 0,0018 m³**

- 1,35 kg
- 1,35 kg
- 1,35 kg

**N° 1 - 0,005 m³**

- 0,85 kg
- 0,85 kg
- 0,85 kg
Industrial meter assembly department organised to make a product ready for the final testing where meters are checked one by one.
PERFORMANCE

- Precision ± 0,3%
- Repeatability ± 0,2%
- Voltage max 120 V 10 W max
- Max amperage 0,5 A max
- Temperature ΔT -20 ÷ +70 °C (-14 ÷ +158 °F)
- Length of the wire 1,5 m
- Kind of signal: clean contact (Reed switch)
- 2 channels (in quadrature)
- not type-approved for public use
The pulser meter is used to measure fluids and to transmit data. It is usually installed on centralized lubrication system to control and manage delivery of fluids.

## Pulser Meter

### Flow rate
- **35 l/min**
- **70 l/min**
- **100 l/min**

### Not type-approved for public use

### Article
- **39610**
- **39613**
- **39615**

### Compatible fluids
- Oil and allied products
- Oil and allied products
- Oil and allied products

### Body's material
- Aluminium
- Aluminium
- Aluminium

### Gear's material
- POM
- POM
- POM

### Inlet
- G 1/2” (f)
- G 3/4” (f)
- G 1” (f) + Flange

### Outlet
- G 1/2” (f)
- G 3/4” (f)
- G 1” (f) + Flange

### Delivery
- 1 - 35 l/min
- 1 - 70 l/min
- 1 - 100 l/min

### Max operating pressure
- 70 bar
- 70 bar
- 70 bar

### Burst pressure
- 200 bar
- 200 bar
- 200 bar

### Accuracy
- ± 0,3 %
- ± 0,3 %
- ± 0,3 %

### Pulser per liter
- 842
- 423
- 282

### Max voltage
- 48 V DC Max
- 48 V DC Max
- 48 V DC Max

### Max amperage
- 0,5 A
- 0,5 A
- 0,5 A

### Max power
- 10 W
- 10 W
- 10 W

### Net weight
- 0,485 kg
- 0,790 kg
- 1,100 kg

### Packing
- N° 1 - 0,0015 m³
- N° 1 - 0,0018 m³
- N° 1 - 0,005 m³

### Gross weight
- 0,85 kg
- 1 kg
- 1,35 kg

### Dimensions (A - B - C)
- 94 - 90 - 55 mm
- 94 - 91 - 77 mm
- 109 - 91 - 99 mm

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Pulser mounted on line
<table>
<thead>
<tr>
<th>Model</th>
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<th>For Antifreeze and Windshield Washing Liquid</th>
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<tbody>
<tr>
<td>39614</td>
<td>Diesel fuel</td>
<td>Diesel fuel</td>
<td>Antifreeze and windshield washing liquid</td>
</tr>
<tr>
<td>39616</td>
<td>Aluminium</td>
<td>Aluminium</td>
<td>Oxidized aluminium</td>
</tr>
<tr>
<td>39611</td>
<td>POM</td>
<td>POM</td>
<td>PVDF</td>
</tr>
<tr>
<td></td>
<td>G 3/4&quot; (f)</td>
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<td>G 1/2&quot; (f)</td>
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<tr>
<td></td>
<td>1 - 90 l/min</td>
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</tr>
<tr>
<td></td>
<td>70 bar</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>± 0.3 %</td>
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<td>± 0.3 %</td>
</tr>
<tr>
<td></td>
<td>412</td>
<td>275</td>
<td>806</td>
</tr>
<tr>
<td></td>
<td>48 V DC Max</td>
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**Flow rates**
- Flow rate 90 l/min
- Flow rate 120 l/min
- Flow rate 40 l/min

**Dimensions**

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Single valve pulser meter connected with solenoid valve to be used with FCS system.
THREE WORDS TO DESCRIBE RAASM

- **Technology**
  The starting point for the entire production cycle is the research and development of cutting-edge new solutions which lead to the development of high quality products, fully produced in Italy.

- **Quality**
  The quality of our product manufacturing has always been our absolute priority. To reach this goal rigorous testing accompanies every phase of the manufacturing process.

- **Functionality**
  RAASM offers the most complete range of lubrication products suited to many sectors. Our aim is to always be available to provide solutions to our customers.