

# Differential fuel flow meter DFM



**NO NEED TO MODIFY THE FUEL SYSTEM SCHEME**

## Specifications

Connecting thread	M14x1.5
Nominal pressure, MPa	0.2
MAX pressure, MPa	2.5
Measured liquid temperature, °C	from 10 to 40
Supply voltage, V	10-50
Overvoltage protection, V	≤100
Current consumption, mA	≤25 (12 V) ≤50 (24 V)
Operating temperature, °C	from -40 to +80

## Advantages

- Fuel flow meters DFM meet road standards of electromagnetic compatibility, mechanical and climatic influences;
- Big in-built mud filter;
- The diameter of nominal bore is from 6 to 10 mm which provides minimum resistance to the fluid flow;
- All the fuel flow meters DFM are tested on the metrologically certified installation.

## Measured fluids

Fuel flow meters DFM can be used for consumption measuring of the following fluids:

- Diesel fuel;
- Heating oil;
- Mineral oil;
- Other types of liquids with kinematic viscosity from 1.5 to 6 mm<sup>2</sup>/sec\*.

\* Application for more viscous liquids is also possible, but the maximum consumption can get less than critical, and the pressure on the meter gets down. All the meters DFM are tested with the diesel fuel. Please, specify

## Purpose

Differential fuel flow meter DFM is designed for measuring diesel fuel consumption in the fuel line of vehicles and installations.

## Applications

Differential fuel flow meter DFM may be used both with vehicle tracking system and fuel monitoring system installed on the motor vehicles with modern diesel engines EURO (TIER) 3/4/5.

Differential fuel flow meter is mounted into the fuel line of the vehicle without changing the fuel system.

## Compatibility

Differential fuel flow meter DFM can operate with the terminals which have discrete or pulse input 0-32V, for example, with [Off-line fuel monitor CKPT 31 Lite](#), [On-line terminal CKPT 45](#).

## Operating principle

Operating principle of differential fuel flow meter is to calculate the fuel consumption as a difference between the flow rates in the supply engine line and the return engine line.

Differential fuel flow meter DFM consists of two three-dimension ring type measuring chambers. Each chamber generates the impulse, when the volume of fuel (which is equal to the volume of measuring chamber) passes through it. Electronic scheme is responsible for the impulses formation in the output interface. For the 1 liter of consumed fuel DFM generates the number of impulses, which is marked on the meter harness.

**Models**

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There are three realizations of the differential fuel flow meter, which differ in measuring chambers volume. They are designed for different maximum flow rates measurement.

Model	Chamber volume ml	MIN flow rate in each chamber l/h	MAX flow rate in each chamber l/h
<b>DFM 100 D</b>	5	10	100
<b>DFM 250 D</b>	12.5	25	250
<b>DFM 400 D</b>	20	50	400

**Warranty**

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Warranty period is 24 months.

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**The manufacturer**

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the fuel type and the viscosity in your order.  
The materials resistant to gasoline are used for DFM manufacturing. Use safety means in accordance with the national laws when working with gasoline.

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We recommend to use the mounting kit №4 to install the differential fuel flow meter DFM on the vehicle.