

Flow Measurement for Tanker Vehicles and Stationary Applications



*for Air Gas, CO₂, N₂O
and Methane*

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FLOWCOM S8

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FLOWCOM S8



The FLOWCOM S8, approved in numerous countries around the world, is installed on more than tow thousand road tankers and stationary applications. It features temperature compensation and optional vapor return compensation for applications with dual hose delivery of carbon dioxide and nitrous oxide. It comes with a configurable pulse output which allows the flow processor to interface with other devices such as fuel management systems. Its eight binary inputs and outputs allow the flow meter to control valves and pump.

Long-Term Stability

Metering section without moving parts, thus no maintenance needed.

Various Media

Cryogenic Products (LIN, LOX, LAR), Liquid Carbon- dioxide, Nitrousoxide and Methane.

High Accuracy

Due to the maintenance-free metering section without moving parts and the principle of differential pressure measurement, the FLOWCOM's calibrated accuracy shows, in contrast to other measurement principles no negative drift.

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Technical Data

- Enclosure:
 - * Stainless Steel, IP65
- Dimensions: HxWxD
 - * 250mmx200mmx170mm(9,84"x 7,87"x6,69")
- Mounting:
 - * Wall mounting brackets
- Power Supply:
 - * 9...36VDC/15VA
- 7 Binary Inputs 9...36VDC
- * 7 Binary Outputs 9...36VDC, 1A max.
- Pulse Output
 - * Voltage as Power Supply, 1A max
- 2 Serial Interfaces RS232
- * Operating Temperature Range
 - 25°C... +55°C (-13°F...131°F)
- * Storage Temperature Range
 - 50°C... +70°C (-58°F...158°F)

Options

- * Ticket Printer
- * Installation set for automatic vapor return compensation (for CO₂ and N₂O)
- * Fully isolated 4...20mA Current Output with 12 Bit Resolution (Option Board FCS8EB1)
- * Option board with 8 binary inputs

Approvals in many Countries

- * Germany
- * USA (California)
- * UK
- * Netherlands
- * Denmark
- * Poland
- * Czech Republik,
- * Austria,
- * Italy
(for approvals in other countries, please contact our Customer Service Department)



The Components

Currently there are more than 2000 Flowcom systems in use world wide. They have been proven to be very reliable and can be economically upgraded as needed.

1. Metering Section

The metering section is the nucleus of the system. It operates on the basis of effective pressure measurement, i.e. the quantity of media flowing is calculated from the pressure drop across an orifice restrictor in the line. The metering section features no moving parts, and thus is maintenance-free. Installation into the pipe line may be done by welding, with flanges or brass screws (see photo).

2. Ticket Printer

The TM295 is capable of printing 42 characters per line on paper formats varying from 80x80 mm up to 182x257 mm. It produces duplicates along with the original and its graphics capability is unmatched in this class. The printer can work with various fonts in 3 sizes. For

rough everyday-handling the printer is optionally available with a IP65 stainless steel enclosure.

3. Temperature Sensor

In order to accomplish the Flowcom 2000's high accuracy is necessary to include the medium's density into the calculation. The temperature sensor, which is installed upstream of the metering section, provides the medium's temperature, which the processor converts into density. The used temperature sensor, type PT100, is a resistance platinum sensor which operates on the basis of the 4-conductor principle.

4. DP- Transmitter

In order to measure the differential pressure, the reliable transmitter, type ROSEMOUNT 1151, is installed to the metering section. The transmitter provides a 4 ... 20 mA output signal, from which the electronic processor calculates the flow rate. Oxygen applications are provided with a special model.



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Alternative Flow Processors

Flowcom 2000

The main feature of the *FLOWCOM 2000* is its user-friendly and intuitive operation. For instance, it is possible to configure the flow processor without any ancillary equipment such as a laptop or handheld computer. The four push buttons of the flow meter are labeled on the display above and clearly indicate their current function depending on the context. The user is guided through the menu which allows the meter to be operated and configured even without a manual. This concept minimizes user errors by offering clear instructions and useful commands only.

Flowcom LC

The *FLOWCOM LC* aims at applications where system cost is a critical factor. It is the most basic member of the Flowcom product

line and works without temperature compensation. Thus, it is ideal for metering of products which have a fairly constant temperature such as cryogenic liquids stored in low pressure tanks. The Flowcom LC is intended to be used in applications where specific approvals are not required. An optional ticket printer can be connected to the system.

Fillcom 250

The *FILLCOM 250* system was especially designed for stationary applications like loading stations for road and railroad tanker vehicles. The LC-Display allows for easy operation because menus and messages can be displayed in different languages. Its expandable input and output ports makes it an ideal choice for many applications.



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