

ESRF-ESF

In-line Gas Flow Sensors



ES Systems has developed ESRF-ESF, an inline gas flow sensor, based on the hot-film anemometer principle for mass gas flow measurements.

ESRF-ESF is one of the few gas flow sensors featuring bidirectional gas flow sensing of up to ± 300 ln/min with a total error band of $<\pm 1.25\%$ RD. ESRF-ESF gas flow sensors provide calibrated and temperature compensated output on an SPI, I²C bus or analog output making them plug & play for direct interfacing to low voltage MCUs and systems. The user is provided with a multitude of interface and output options so that the right sensor configuration can be selected based on the specific requirements for each application.

Due to the compact design, and versatility, ESRF-ESF gas flow sensors are ideal for medical, process & pharmaceutical equipment where high accuracy and reliability are of the essence.

Calibration gas is air but other non-aggressive gases are available upon request.



62, I. Metaxa str.

19441 Koropi - Athens, Greece

T +30 216 2000500

F +30 216 2000555

info@esenssys.com

www.esenssys.com



GAS FLOW SENSORS



ESRF-ESF

In-line Gas Flow Sensors

Specifications

5 V

I2C, SPI, 0.5 - 4.5V

±1.25 % RD

12 bit

1.6 ms

35 ms

-20°C...+85°C

0°C...+50°C

44 x 92.8 x 35.4 mm

2mm Locking Connector

22 mm ISO 5356

Evaluation Kit

The gas flow evaluation kit has been designed to provide the user with a compact solution for the evaluation of the ESRF-ESF bidirectional gas flow sensors with no need for custom software or hardware design and development. The kit has been designed to work as a plug and play device. A user-friendly software has been

0%-95%RH, Non-Condensing

Air, other available on request

Up to ±300 ln/min, Bi or Unidirectional

Calibration Gas

Supply Voltage

Effective Resolution

Output Update Rate

Operating Temperature

Calibration Temperature

Response Time

Size (WxLxH)

Pneumatic Interface

Electrical Interface

Humidity

Flow Range

Output

Total Error

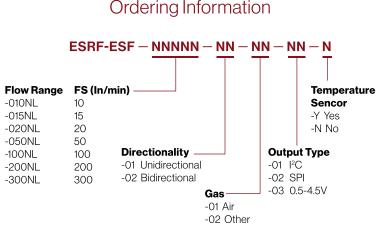






Ordering Information

developed in order to log and monitor flow data of the ESRF-ESF sensors.





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