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 <±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.
ESRF-ESF
In-line Gas Flow Sensors

Specifications

- **Calibration Gas**: Air, other available on request
- **Flow Range**: Up to ±300 L/min, Bi or Undirectional
- **Supply Voltage**: 5 V
- **Output**: 1'C, SPI, 0.5 - 4.5 V
- **Total Error**: ±1.25 % RD
- **Effective Resolution**: 12 bit
- **Output Update Rate**: 18 ms
- **Response Time**: 35 ms
- **Operating Temperature**: -20 °C...+85 °C
- **Calibration Temperature**: 0°C...+50 °C
- **Humidity**: 0 % - 95 % RH; Non-Condensing
- **Size (W x L x H)**: 44 x 92.8 x 35.4 mm
- **Pneumatic Interface**: 22 mm ISO 5356
- **Electrical Interface**: 2mm Locking Connector

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

Ordering Information

```
ESRF-ESF — NNNNN — NN — NN — NN — N
```

- **Flow Range**
  - 010NL: 10
  - 015NL: 15
  - 020NL: 20
  - 050NL: 50
  - 100NL: 100
  - 200NL: 200
  - 300NL: 300

- **FS (L/min)**
  - 01
  - 02

- **Directionality**
  - 01 Undirectional
  - 02 Bidirectional

- **Gas**
  - 01 Air
  - 02 Other

- **Temperature Sensor**
  - Y Yes
  - N No

- **Output Type**
  - 01 1'C
  - 02 SPI
  - 03 0.5 - 4.5 V

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