

ESRF-HF

Insertion Gas Flow Transmitters



ES Systems has developed ESRF-HF, a family of insertion gas flow transmitters, based on the hot-film anemometer principle for mass gas flow measurements.

The ESRF-HF is a family of mass flow transmitters which enable fast and accurate measurements of gas flow over a wide dynamic range. Each transmitter integrates a MEMS flow sensor and readout electronics inside a housing with very small form factor made from stainless steel. The duty pressure of the flow transmitter is 11bar. All measurement data are fully calibrated, and temperature compensated on board, leading to a reduced temperature coefficient and high measurement accuracy.

The standard system provides analog signal output, with excellent repeatability and hysteresis combined with good resolution. Calibration gas is air, but other non-aggressive gases can be also available upon request.

The compact size of the ESRF-HF flow transmitters combined with the ruggedized stainless-steel housing makes them ideal for use in industrial applications within confined spaces. For easier handling and mounting, a series of in-line pipe adaptors (Ø20, Ø25, Ø32) is also available upon request.



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ESRF-HF

Insertion Gas Flow Transmitters



Specifications

Calibration Gas	Air, other available on request
Flow Range	Up to 1500 l/min, Unidirectional
Supply Voltage	14 V to 32 V
Output	4-20 mA
Accuracy	± 2 RD + 0.3%FS
Total Error	± 5 RD + 0.5%FS
Resolution	12 bit
Output Update Rate	10 Hz
Duty Pressure	11 bar
Operating Temperature	-40°C ... + 85°C
Calibration Temperature	0°C ... + 50°C
Humidity	0% - 95% RH, Non - Condensing
Size (with Adapter)	W x L x H (mm)
DN20	36 x 68 x 40 (mm)
DN25	40 x 78 x 42.5 (mm)
DN32	48 x 88 x 46 (mm)
Pneumatic Interface	Ø20, Ø25, Ø32
Electrical Interface	Cable

Features

- Unidirectional operation
- High stability
- Wide dynamic range
- High duty pressure
- Excellent repeatability and hysteresis
- Low temperature coefficient
- Compact size

Ordering Information

ESRF-HF - NNNNNN - NN - NN - NN - NN

Flow Range	FS (l/min)				
0100NL	100	Directionality 01 Unidirectional	Gas 01 Air 02 Other	Adapter 01 DN20 brass 02 DN25 brass 03 DN32 brass	Output 01 4-20mA
0150NL	150				
0250NL	250				
0300NL	300				
0500NL	500				
0600NL	600				
0700NL	700				
0800NL	800				
01000NL	1000				
01200NL	1200				
01500NL	1500				



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