

Product Information

Sensors and Instrumentation

**Flow Transmitter
 Lineflow RRF**



- High accuracy / repeatability at low costs
- Determination of low flow rates
- Independent of location

Characteristics

With the RRF flow meter, an inline turbine is fitted in a plastic housing. A Hall sensor detects, contact-free, the rotation of the turbine, and outputs a frequency signal proportional to the flow.

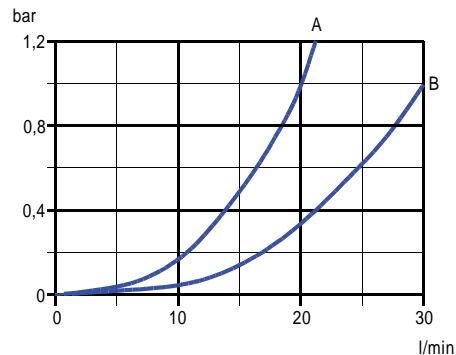
Technical data

Sensor	turbine fitted with magnets with Hall sensor
Nominal width	DN 10
Process connection	male thread G 3/8 A
Metering range	0.5..30 l/min, for details see table "Ranges and pressure loss"
Measurement accuracy	±3 % of the measured value
Repeatability	±0.5 % of full scale value
Medium temperature	-20..+100 °C
Ambient temperature	0..80 °C
Pressure resistance	PN 14 bar
Pressure loss	see table "Ranges and pressure loss"
Supply voltage	5..24 V DC at 8 mA
Frequency output	NPN open collector at 50 mA max. (1 to 2.2 K Ohm pull-up resistor required)
Electrical connection	cable 1 m or open plug contact 2.8/6.3 x 0.8
Materials	Housing PA 12 Turbine PA 12 Bearing PTFE 15 % graphite
Ingress protection	Cable IP60 Plug contact IP00
Weight	0.04 kg
Conformity	CE

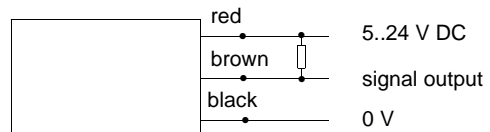
Ranges and pressure loss

Types	Metering range	Pulses/ litre	Frequency at Q _{max}	Pressure loss code (see diagram)
RRF-010AN	l/min H ₂ O		Hz	
005	0.5.. 5	6900	575	A
010	1.0..10	3300	550	A
015	1.0..15	2200	550	A
030	2.0..30	1000	500	B

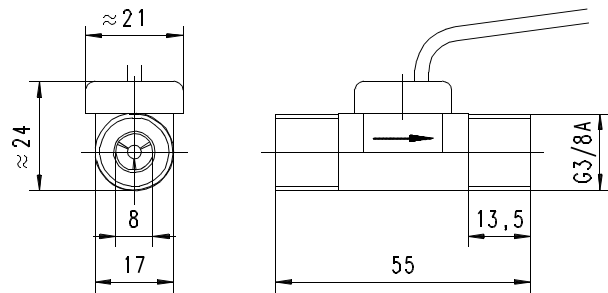
Pressure loss



Wiring



Dimensions



Product Information

Sensors and Instrumentation

Handling and Operation

Installation

The turbine's direction of flow is marked by an arrow on the housing. Ideally, flow should be from bottom to top. In any case, prevent entrapment of air. Pressure surges when starting up can damage the turbine. The turbine should therefore first be flooded slowly, and only then should the nominal flow be applied. It should preferably be installed ahead of and not after valves in order to prevent the turbine from running empty.

The turbine is sealed into the pipework using Teflon tape or similar. It should be ensured that the thread is not damaged by tightening too strongly. Bending forces on the turbine caused by the pipework must be avoided under all circumstances.

Ordering code

1. 2. 3. 4. 5.
 RRF-

○=Option

1. Nominal width	010	DN 10 - G ³ / ₈
2. Process connection	A	male thread
3. Housing material	N	nylon
4. Metering range	005	0.5.. 5 l/min
	010	1.0..10 l/min
	015	1.0..15 l/min
	030	1.0..30 l/min
5. Electrical connection	K	cable connection
	F	<input type="radio"/> open plug contact

Accessories

- OMNI-TA converter / counter for control panel installation
- Counter EEZ-904