

RotorFlow - RFO and RFA Types

ROTOR & TURBINE

4.5 - 24 VDC Pulsed Output - RFO 0 - 10 V, RFA

Gems Sensors popularised the Rotor-Flow's paddlewheel design by combining high visibility rotors with solid-state electronics that are packaged into compact, panel mounting housings. They provide accurate flow rate output with integral visual confirmation ... all with an unprecedented price/performance ratio.



Hall-Effect-Sensor sends a voltage pulse with each pass of magnetic field

High Resolution Black Rotor

Ryton composite. Each of the six rotor arms are magnetized.



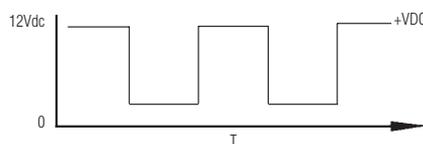
Signal Output

Output signal for RFO Types is an on/off pulse of the DC voltage supplied to the unit, it is compatible with all digital logic families. Input voltage range is 4.5 to 24 Vd.c.

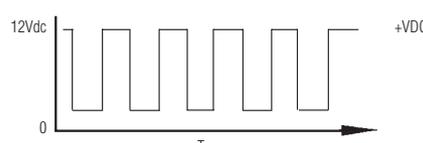
Frequency of the output pulse is proportional to the flow rate and ranges from approximately 25 Hz at low flow to 225 Hz at high flow. See order number for more information.

Following examples are at 12Vdc supply

Low Flow



HighFlow



* With use of Low-Flow-Adapter supplied.

See page 70 for more information.

For dimensions see page RFS

Please consult factory for detailed flow rate / frequency curves.

FLOW SWITCHES

Specifications

Wetted materials	Polypropylene (Hydrolytically Stable, Glass Reinforced), Stainless Steel or Brass	
Body		
Rotor pin	Ceramic	
Rotor	Ryton Composite, Colour: Black	
Lens	Polysulfone	
O-Ring	Buna N (Metal body = Viton)	
Max. operating pressure	Polypropylene Body:	7 bar
	Metal Body:	14 bar
Max. operating temperature	Polypropylene Body:	80 °C
	Metal:	100 °C
Electronics (both bodies)	65 °C Ambient	
Max. viscosity	45 cSt	
Input power	4.5 to 24 Vdc, (24Vdc Regulated Supply for RFA models)	
Output signal	4.5 to 24 Vdc Pulse, Pulse Rate dependent on Flow Rate, Port Size and Range 0 to 10 V, available (RFA model), consult Sales Office	
Max. current source output	70 mA	
Frequency output range	25 Hz (Low Flow) to 225 Hz (High Flow)	
Electrical termination	AWG 22 PVC-Jacketed Cable, Length 60 cm Colour Code: Red = + Vdc, Black = Ground, White = Signal output	
Typical pressure drop	See Graphs	

How to Order

Body Material	Port Size	Flow Ranges (l/min)		Output (Hz) Approximate	RFO		RFA
		Low Range*	Standard Range		BSP	NPT	
Polypropylene	1/4"	0.4 to 4.0 (±7%)	2.0 to 20.0 (±7%)	15-180	155421BSPP	155421	Consult Factory
	1/2"	6.0 to 45.0 (±7%)	15.0 to 75.0 (±15%)	20-190	155481BSPP	155481	
Brass	1/4"	0.4 to 4.0 (±7%)	2.0 to 20.0 (±7%)	15-180	156261BSPP	156261	Consult Factory
	1/2"	6.0 to 45.0 (±7%)	15.0 to 75.0 (±15%)	20-190	156262BSPP	156262	
	3/4"	---	20 to 112.5 (±15%)	25-210	194761BSPP	194761	
	1"	---	30 to 225 (±15%)	15-180	194762BSPP	194762	
Stainless Steel	9/16 - 18 UNF	0.4 to 4 (±7%)	2 to 20.0 (±7%)	15-180	N/A	165071	Consult Factory
	1/2"	6 to 45 (±7%)	15.0 to 75.0 (±15%)	20-190	165075BSPP	165075	
	3/4"	---	20 to 112.5 (±15%)	25-210	194763BSPP	194763	
	1"	---	30 to 225 (±15%)	15-180	194764BSPP	194764	

* With use of Low-Flow-Adaptor supplied