

ROTOR & TURBINE

FLOW SWITCHES

RotorFlow - RFO and RFA Types

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

Specifications

Wetted materials Body Rotor pin Rotor Lens O-Ring	Polypropylene (Hydrolytically Stable, Glass Reinforced), Stainless Steel or Brass Ceramic Ryton Composite, Colour: Black Polysulfone Buna N (Metal body = Viton)			
Max. operating pressure	Polypropylene Body: Metal Body:	7 bar 14 bar		
Max. operating temperature	Polypropylene Body: Metal:	80 °C 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

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.

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

* With use of Low-Flow-Adaptor supplied

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Standard Products in **bold**