

# Positive Displacement Flow Meter

## RF3800



Available with Digital LCD/ Analog display



Accuracy of  $\pm 0.2\%$



Convenient to Calibrate & Install



IP67 Enclosure Protection

**Product  
Datasheet**

# ROCKSENSOR AT A GLANCE (ABOUT US)

Rocksensor is one of the global leaders specializing in process Instrumentation, Research and Development and Designing of Industrial Automation Equipment. We provide highly precise pressure sensors and transmitters, flow metres, level transmitters & temperature transmitters with a prime focus to help our clients efficiently, safely and economically run complex industrial processes.

Rocksensor headquartered in Germany (originated in Switzerland), has its footprint in various geographical regions such as the US, Russia, South Korea, Italy, Germany, Singapore, Malaysia, China, Taiwan, Australia, UAE, Brazil, and India. Our clients come from some of the major industries such as Oil and Gas, Petrochemicals, Pharmaceuticals, FMCG, Automobiles, Water, Cement, Metal & Mining and mainly from the Power Industry like Nuclear, Thermal, Hydro and Solar.

Rocksensor deals in a wide range of highly accurate industrial automation instruments ensuring that even the complex industrial processes happen efficiently.

To fulfill the needs of our clients we make sure that our instruments work in even the harsh environmental conditions offering accurate recordings and communication.

We, at Rocksensor, believe in creating bonds that last a lifetime and create a success story for each and every client. Rocksensor aims to achieve a perfect fit in global market landscape and establish our footprints across the globe.



CONTENTS

1. Introduction ..... 4

2. Dimensional Drawings ..... 4-5

    2.1 Low Viscosity Oval Gear Flowmeter ..... 4-5

    2.2 High Viscosity Oval Gear Flowmeter ..... 4-5

    2.3 High-Precision Oval Gear Flowmeter ..... 4-5

KEY APPLICATION INDUSTRIES

- Oil and Gas sector
  - Cement
  - Metal
  - Pulp and Paper
  - Agriculture
  - Textiles
- Chemicals
  - Power
  - Water
  - Pharmaceutical
  - Fertilizer
  - Plastics and HVAC

## 1. Introduction

Oval Gear Flowmeter is a volumetric meter for continuous or intermittent measurement & control of liquid flow in a pipeline. It has a large range, high accuracy, small pressure loss, strong viscosity adaptability. It can measure high viscosity liquid at high temperature. It is convenient to calibrate & install. These flowmeters are suitable for flow measurement in petroleum, chemical, fiber, transportation, food, medicine & industries. The RF3800 series oval gear flowmeter is equipped with a pointer & character wheel accumulation device which can directly display the liquid flow I& instantaneous flow through the pipeline on site. The additional signaling device & electric display instrument in the counting mechanism can realize the centralized control of quantitative & instantaneous flow with remote transmission. Install a radiator or ellipsoidal tooth to measure high temperature & high viscosity liquid. The flowmeter body is made of different materials as per their suitability to different liquids such as acid, alkali, salt, organic solution, etc.



With Digital LCD display

## 2. Technical Specifications

### 2.1 Low Viscosity Oval Gear Flowmeter

Flowmeter MOC	Cast Iron RF3800-A	Stainless Steel RF3800-B	Cast Steel RF3800-E
Nominal Pressure, Mpa	1.6	1.6, 2.5	1.6, 2.5, 4.0, 6.3
Temperature Range, °C	(-)20 ~ 80°C, +100 ~ +200° C		
Accuracy	0.5%		
Flow Range, m³/h			
Line Size, mm	Measuring Liquid Viscosity, mPa.s		
	0.16 - 2	2 – 200	
10	0.16 ~ 0.4	0.08 ~ 0.4	
15	0.6 ~ 1.5	0.3 ~ 1.5	
20	0.75 ~ 3	0.6 ~ 3	
25	1.5 ~ 6	0.8 ~ 6	
40	5 ~ 15	3 ~ 15	
50	6 ~ 24	4 ~ 24	
65	8 ~ 40	8 ~ 40	
80 (Light)	8 ~ 40	8 ~ 40	
80 (Heavy)	15 ~60	10 ~ 60	
100	30 ~ 100	15 ~ 100	
150	45 ~ 190	34 ~ 190	
200	68 ~ 340	56 ~ 340	

2.2 High Viscosity Oval Gear Flowmeter

Flowmeter MOC	Cast Iron RF3800-A	Stainless Steel RF3800-B	Cast Steel RF3800-E
Nominal Pressure, Mpa	1.6	1.6, 2.5	1.6, 2.5, 4.0, 6.3
Temperature Range, °C	(-)20 ~ 80°C, +100 ~ +200° C		
Accuracy	0.5%		
Flow Range, m³/h			
Line Size, mm	Measuring Liquid Viscosity, mPa.s		
	0.16 - 2	2 – 200	
10	0.04 ~ 0.3	0.03 ~ 0.2	
15	0.2 ~ 1.0	0.1 ~ 0.7	
20	0.4 ~ 2.1	0.25 ~ 1.5	
25	0.8 ~ 4.2	0.6 ~3	
40	2.1 ~ 10.5	1.0 ~ 7.5	
50	2.4 ~ 16.8	2 ~ 12	
65	5.6 ~ 28	4 ~ 20	
80 (Light)	5.6 ~ 28	4 ~ 20	
80 (Heavy)	6 ~ 42	6 ~ 30	
100	14 ~ 70	10 ~ 50	
150	27 ~ 133	19 ~ 95	
200	48 ~ 238	34 ~ 170	

2.3 High-Precision Oval Gear Flowmeter

Flowmeter MOC	Cast Iron RF3800-A	Stainless Steel RF3800-B	Cast Steel RF3800-E
Nominal Pressure, Mpa	1.6	1.6, 2.5	2.5, 4.0, 6.3
Temperature Range, °C	(-)10 ~ 60° C		
Accuracy	0.2%		
Flow Range, m³/h			
Line Size, mm	Measuring Liquid Viscosity, mPa.s		
	0.16 - 2	2 – 200	
10	Inquiry	0.2 ~ 0.4	
15	Inquiry	0.3 ~ 1.5	
20	1.5 ~ 3	1.2 ~ 3	
25	3 ~ 6	1.6 ~ 6	
40	8 ~ 15	6 ~ 15	
50	12 ~ 24	8 ~ 24	
65	20 ~ 40	13 ~ 40	
80 (Light)	20 ~ 40	13 ~ 40	
80 (Heavy)	30 ~60	20 ~ 60	
100	50 ~ 100	30 ~ 100	
150	90 ~ 190	68 ~ 190	
200	170 ~ 340	112 ~ 340	

## Field Instrumentation Range



### Pressure Measurement

- Smart Differential Pressure Transmitter
- Smart Gauge Pressure Transmitter
- Smart Absolute Pressure Transmitter
- Miniature Pressure Transducer without display
- Sanitary Gauge/ Absolute Pressure Transmitter

- Submersible Pressure Transmitter
- Remote Seal Differential P.T. with capillary
- Remote Seal Differential P.T. Direct Mount
- Remote Seal Gauge/Absolute P.T. with capillary
- Remote Seal Gauge/Absolute P.T. Direct Mount



### Flow Measurement

- Coriolis Mass Flowmeter
- Thermal Gas Mass Flowmeter
- Positive Displacement Flowmeter
- Electromagnetic Flowmeter
- Vortex Flowmeter

- Turbine Flowmeter
- Variable Area Flowmeter
- Clamp On Ultrasonic Flowmeter
- Inline Ultrasonic Flowmeter
- Portable Ultrasonic Flowmeter



### Level Measurement

- RADAR Level Transmitter Horn Antenna
- Compact RADAR Level Transmitter
- RADAR Level Transmitter Sanitary
- RADAR Level Transmitter
- Guided Wave RADAR Level Transmitter
- Guided Wave RADAR Level Transmitter
- RADAR Level Transmitter Lens Antenna

- RADAR Level Transmitter Rod Antenna
- Ultrasonic Level Transmitter
- Microwave Barrier Level Switch
- Admittance Level Switch Series
- Vibrating Rod Level Switch Series
- Tuning Fork Level Switch Series



### Temperature Measurement

- Head Mount Temperature Transmitter
- Temperature Transmitter for Sanitary Applications

- DIN Rail Temperature Transmitter
- Field Mount Temperature Transmitter

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