HOFFER Flow Controls

Perfecting Measurement™

Product Bulletin
HRG1000

HFC Positive Displacement Flow Meter

HRG1000 Series Industrial



INTRODUCTION

The HRG1000 Series Positive Displacement Flow Meters represent a new standard in precision fluid measurement. Designed for industries where accuracy, reliability, and durability are essential, these meters excel in handling fluids with a wide range of viscosities — from thin solvents to heavy lubricants.

By employing a proven positive displacement measurement principle, the PD Series ensures consistent volumetric accuracy regardless of changes in temperature, pressure, or fluid characteristics. This makes them ideal for applications where even small measurement errors can lead to significant cost implications or quality issues.

KEY FEATURES + BENEFITS

Durable Construction: Manufactured from corrosion-resistant materials such as stainless steel & Aluminum, enabling long service life in harsh environments.

Low Maintenance Requirements: Minimal moving parts reduce wear, extend service intervals, and lower total cost of ownership.

Versatile Application Range: Suitable for petroleum products, chemical solutions, food-grade liquids, and other specialty fluids.

Stable Performance: Unaffected by changes in fluid density, temperature, or viscosity, providing consistent results in dynamic operating conditions.

Flexible Installation Options: Available in multiple connection sizes and configurations to integrate seamlessly into existing systems.

FEATURING A ROBUST DESIGN

RATED UP TO 10,000 PSI (HIGH PRESSURE CONFIGURATION)

DIVERSE END FITTINGS

STAINLESS-STEEL BALL BEARINGS

IDEAL FOR DEMANDING INDUSTRIAL APPLICATIONS

OFFERS A MEASUREMENT RANGE OF 0.005 TO 120 GPM (0.02 TO 450 LPM)

OPTIONAL PICKUPS FOR PULSE, ANALOG, OR COMBINED ANALOG AND ALARM OUTPUTS

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FEATURES

1. Range
   0.005 to 120 GPM / 0.02 to 450 LPM
2. Analog / Pulse Output
3. Bi-directional Flow Measurement
4. High accuracy and repeatability
5. High Turndown Ratio
6. Ideal for Non-lubricating fluids

The HRG1000 combines high repeatability, wide turndown, and output flexibility for process environments that require reliable measurement.

APPLICATIONS

Petrochemical Processing: Accurate measurement of fuels, lubricants, and additives.

Lubricant Dispensing Systems: Ensures correct dosing in automotive and industrial applications.

Chemical Dosing and Transfer: Reliable performance with corrosive fluids.

Paints, Coatings, and Adhesives: Maintains accuracy with high viscosity materials.

SPECIFICATIONS

Applicable Medium	**Liquids**
Accuracy	+/-0.5% of reading (turndown ratio 10:1) +/1% of reading (full range) (turndown ratio 100:1)
Repeatability	+/-0.1% of reading
Pressure Rating	See measuring range below for details
Working temperature	-40 to 212°F / -40 to 100°C (See electronics order code for other options)
Materials	Body: 316L SS / Aluminum Gear Duplex SS Elastomers: Viton (optional Nitrile/EPDM/ Teflon) Bearing: stainless steel ball bearing Shaft: Tungsten Carbide Bolts: Carbon Steel

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ORDER CODE

1. Model

HRG1000-05-NF-V-A

2. Measuring range

HRG05	0.02 to 2 LPM
HRG08	0.03 to 3 LPM
HRG2	0.075 to 7.5 LPM
HRG7	0.25 to 25 LPM
HRG10	0.40 to 40 LPM
HRG20	0.75 to 75 LPM
HRG40	1.50 to 150 LPM
HRG60	2.25 to 225 LPM
HRG120	4.50 to 450 LPM

3. End Fitting

GF	BSPP female thread
NF	NPT female thread
BP	Manifold mount (bottom port)
S	Other connections on request

4. Elastomers

N	Nitrile
T	Teflon
E	EPDM
V	Viton

5. Housing Material

A	Aluminum
S6	316L stainless steel

ELECTRONICS HPDE

1. Model

HPDE HPDE-P1-T1

2. Output

P1	Pulse output
P2	Linearized pulse output
A	Analog output (4 to 20mA)
D	Digital transmitter
E	Ex-proof transmitter

3. Temperature

T1	-40 to 212°F (-40 to 100°C)
T2	-40 to 302°F (-40 to 150°C)
T3	-40 to 446°F (-40 to 230°C)


Pulse Output


Analog Output


Digital Output


Ex-proof

ELECTRONICS HPDE-D

1. Model

HPDE-D HPDE-D-P1-T1

2. Output

P1	Single pulse output with 4 x pulse resolution
P2	Dual-pulse Output (Quadrature signal with 90 deg phase shift)
A	4 to 20mA + flow direction detection
V	-10 to 10V + flow direction detection

3. Temperature

T1	-40 to 212°F (-40 to 100°C)
T2	-40 to 302°F (-40 to 150°C)
T3	-40 to 446°F (-40 to 230°C)


DUAL PICK-UP COIL

See electronics data sheet for details

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Size Selector Chart for HRG1000

Part Code	End Fitting (Female Thread)	Measuring Range (GPM)	Measuring Range (LPM)	K Coefficient (PULSE/GAL)	Max. Filter Diameter (Micron)	Max. Pressure Rating (psi)	
						Housing: 316L SS	Housing: Aluminum
HRG05	1/4" (NPT / BSPP)	0.005 to 0.5	0.02 to 2	70,000	30	6,000	3,600
HRG08	1/4" (NPT / BSPP)	0.008 to 0.8	0.03 to 3	51,100	30		
HRG2	1/4" (NPT / BSPP)	0.02 to 2	0.075 to 7.5	15,700	30		
HRG7	1/2" (NPT / BSPP)	0.07 to 7	0.25 to 25	6,400	30		
HRG10	1/2" (NPT / BSPP)	0.1 to 10	0.40 to 40	2,900	30		
HRG20	3/4" (NPT / BSPP)	0.2 to 20	0.75 to 75	1,700	200		
HRG40	1" (NPT / BSPP)	0.4 to 40	1.50 to 150	510	200	5,000	2,100
HRG60	1-1/4" (SAE Flange)	0.6 to 60	2.25 to 225	416	200		
HRG120	1-1/4" (SAE flange)	1.2 to 120	4.50 to 450	208	200		

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

Discover the Hoffer HRG PD Series Advantage

For detailed specifications, application guidance, product selection, installation planning, and integration support, contact the Hoffer technical team.

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