

## **IN-LINE FLOW MONITORS**

For Air, Water or Caustic Fluids,  $\pm 2\%$  FS, Unrestricted Mounting, High Temperature and Pressure Options



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		Dayer  (Will HERMANITY Inc. (MINISTERNATIVE Inc.)
["(	C"]	6PM ROW AVE 40 150 30 120
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Valve	"A"	"B"	"C"
Size	Reference	Wrench Flats	Reference
1/8 NPT	1.25	0.875	4.813
1/4 to 1/2 NPT	1.875	1.250	6.562
3/4 to 1 NPT	2.375	1.750	7.125
1-1/4 to 1-1/2 NPT	3.500	2.250	10.125
2 NPT	3.500	2.250	12.625

The SERIES HF In-Line Flow Monitors are ruggedly constructed and ideal for direct measurement for a range of compatible gases, oil or water based liquids. This Series is designed based on a floating orifice disk and variable area flow measurement. Flowing media forces linear motion of the orifice disk and a ring shaped magnet which ride on a tapered center shaft. The transfer magnet drives a clearly visible magnet follower located outside the flow tube, and a ring on the magnet follower indicates flow rate on the direct reading scale.

## FEATURES/BENEFITS

- This unique design allows accurate performance with fluid viscosities up to 500 SSU
- · All internal wetted parts are contained inside a sealed metal tubular casing assuring
- Internal wetter parts are contained inside a sealed metal tubular casing assuring a virtually maintenance-free unit
   Increased application versatility with no inlet or outlet straight plumbing requirement and can be mounted horizontally, vertically, or inverted
   Rugged construction allows for high pressure and temperature rating for long operation life

## **APPLICATIONS**

- Setting pressure relief valves
   Fluid handling equipment
   Detecting low-flow rates for lubricating liquids
   Pulp and paper
   Industrial and apper
- · Industrial maintenance
- Fluid powerHeating loop flow

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Connection   Range: Water GP   Model   Size   (LPM)*		
HFB-3-15 HFB-3-20 HFB-4-35 HFB-5-50 HFB-5-100 HFB-6-75	1/2" female NPT 3/4" female NPT 3/4" female NPT 1" female NPT 1-1/2" female NPT 1-1/2" female NPT 2" female NPT 2" female NPT	0.5 to 5.0 (1 to 19) 2 to 15 (7.5 to 55) 2 to 20 (7.5 to 75) 5 to 35 (19 to 130) 5 to 50 (19 to 189) 10 to 100 (38 to 379) 8 to 75 (31 to 284) 20 to 150 (76 to 568)

## **SPECIFICATIONS**

Service: Compatible gases or liquids.

Wetted Materials: HFA: Aluminum casing, Buna-N seals, PTFE coated Alnico magnet, SS disk; HFB: Brass casing, Buna-N seals, PTFE coated Alnico magnet, SS disk; HFS: 303 SS casing, FKM seals with PTFE backup, PTFE coated Alnico

magnet, SS disk.

Maximum Viscosity: 500 SSU.

Temperature Limits: 240°F (116°C).

Pressure Limits: HFA, HFB, HFL and HFH models: 600 psig (41 bar) for air and gas, 3500 psig (241 bar) for liquids; HFS model: 1000 psig (70 bar) for air and gas, 6000 psig (413 bar) for liquids.

Accuracy: ±2% FS.

Repeatability: ±1% of FS.

Shipping Weight: 11/4" to 1/2" female NPT models; 2 lb (0.9 kg); 3/4 to 1" female NPT models: 3.5 lb (1.59 kg); 1-1/2" female NPT models: 11 lb (5 kg); 2" female NPT models: 13.5 lb (6.12 kg).

Note: Series HF monitors are recommended for use with system filtration of at least 74 microns or a 200 mesh screen

	MODEL CHART - ALUMINUM BODY FOR OIL BASED FLUIDS			
Connection   Range: Oil GPM   (LPM)*				
HFL-2-05 HFL-4-25	1/2" female NPT 1" female NPT	0.5 to 5.0 (1 to 19) 2 to 25 (7.5 to 95)		
*Dual scale	*Dual scale range			

	DEL CHART - 304 SS BODY FOR GH-PRESSURE FLUIDS  Connection Range: Water del Size GPM (LPM)*		
Model			
HFS-2-02 HFS-2-10	1/2" female NPT 1/2" female NPT	0.2 to 2.0 (0.75 to 7.5) 0.5 to 10 (1.9 to 38)	
*Dual scale	Dual scale range		

MODEL CHART - ALUMINUM, BRASS, AND STAINLESS STEEL FOR AIR AND OTHER NON-CORROSIVE GASES				
Aluminum Model	Brass Model	Stainless Steel Model	Connection (NPT female, dry seal)	Range: SCFM (LPS)*
HFA-1-001 HFA-1-002 HFA-1-003	HFB-1-002	HFS-1-002	1/4" 1/4" 1/4"	1.5 to 12 (0.5 to 5.5) 4 to 23 (2 to 10) 5 to 50 (2.5 to 25)
HFA-1-004 HFA-8-001	HFB-1-004 HFB-8-001	HFS-1-004 HFS-8-001	1/4″ 3/8″	10 to 100 (5 to 45) 1.5 to 12 (.5 to 5.5)
HFA-8-002 HFA-8-003 HFA-8-004	HFB-8-003 HFB-8-004	HFS-8-003 HFS-8-004	3/8" 3/8" 3/8"	4 to 23 (2 to 10) 5 to 50 (2.5 to 25) 10 to 100 (5 to 45)
HFA-2-001 HFA-2-002 HFA-2-003	HFB-2-002	HFS-2-002	1/2" 1/2" 1/2"	1.5 to 12 (.5 to 5.5) 4 to 23 (2 to 10) 5 to 50 (2.5 to 25)
HFA-2-004 HFA-3-003 HFA-3-004	HFB-2-004 HFB-3-003	HFS-2-004 HFS-3-003	1/2" 3/4" 3/4"	10 to 100 (5 to 45) 5 to 50 (3 to 23) 10 to 100 (4 to 48)
HFA-3-005 HFA-3-006	HFB-3-005 HFB-3-006	HFS-3-005 HFS-3-006	3/4" 3/4"	15 to 150 (8 to 56) 30 to 330 (20 to 150)
HFA-4-003 HFA-4-004 HFA-4-005	HFB-4-004 HFB-4-005	HFS-4-004 HFS-4-005	1" 1" 1"	5 to 50 (3 to 23) 10 to 100 (4 to 48) 15 to 150 (8 to 56)
HFA-4-006 HFA-9-007 HFA-9-008	HFB-9-007	HFS-9-007	1" 1-1/4" 1-1/4"	30 to 330 (20 to 150) 30 to 470 (15 to 220) 150 to 900 (75 to 425)
HFA-5-007 HFA-5-008	HFB-5-007 HFB-5-008	HFS-5-007	1-1/2″ 1-1/2″ 1-1/2″	30 to 470 (15 to 220) 150 to 900 (75 to 425)
*Dual scale range				

USA: California Proposition 65