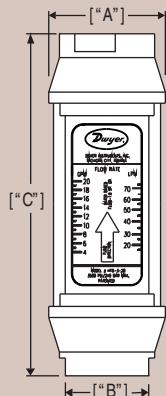




Series  
HF

# In-Line Flow Monitors

For Air, Water or Caustic Fluids,  $\pm 2.5\%$  Accuracy, Unrestricted Mounting



**MONTAGGIO IN TUTTE LE POSIZIONI,  
DISPONIBILI CONNESSIONI BSP  
ALTRE SCALE E DIMENSIONI,  
COMPATIBILI PER FOSFATI**

Connection Size	"A" Reference	"B" Wrench Flats	"C" Reference
1/4" to 1/2" NPT	1-7/8" (48 mm)	1-1/4" (32 mm)	6-9/16" (167 mm)
3/4" to 1" NPT	2-3/8" (60 mm)	1-3/4" (45 mm)	7-1/8" (181 mm)
1-1/2" NPT	3-1/2" (89 mm)	2-5/8" (67 mm)	10-1/8" (257 mm)
2" NPT	3-1/2" (89 mm)	2-5/8" (67 mm)	12-5/8" (321 mm)

**Low cost, Series HF In-Line Flow Monitors** have a patented design based on a floating sharp-edged orifice disk and variable area flow measurement to yield accuracy of  $\pm 2.5\%$  over center one-third of scale. 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 a virtually maintenance-free unit. Flowing media forces linear motion of a spring loaded, sharp edge orifice disk and ring shaped transfer magnet which both ride on a tapered center shaft. The transfer magnet drives a clearly visible magnet follower located outside the flow tube, protected under the clear polycarbonate tube. A ring on the magnet follower indicates flow rate on the direct reading scale. Rubber bumpers are provided for external impact resistance.

Designed for single-direction flow, Series HF Monitors are recommended for use with system filtration of at least 74 microns or a 200 mesh screen. Some applications may also require magnetic filtration. These flowmeters do not require inlet or outlet straight plumbing and can be mounted horizontally, vertically, or inverted.

## APPLICATIONS

HF Flow Monitors can be used to set flow rates, fluid motor and cylinder speeds. Check pump high pressure performance, pressure relief valve settings, fluid handling systems in agricultural, construction or industrial machinery, power tools and equipment. Monitor petrochemical operations with brass or stainless steel models. Industrial pneumatic systems air flow can be monitored with the HFA models which are calibrated at 100 psig inlet pressure.

## SPECIFICATIONS

**Service:** Compatible gases or liquids.

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

**Maximum Viscosity:** 500 SSU.

**Temperature Limits:** HFA, HFL, HFB and HFS models: 240°F (116°C); HFH models: 400°F (204°C).

**Pressure Limits:** HFA models: 600 psig (41 bar); HFL, HFB and HFH models: 3500 psig (240 bar); HFS: 1000 psig (70 bar) for air and gas, 6000 psig (413 bar) for liquids.

**Accuracy:**  $\pm 4\%$  FS over entire range;  $\pm 2.5\%$  over center third of the measuring range.

**Repeatability:**  $\pm 1\%$  of full scale.

**Shipping Weight:** 1/4" 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).

Model	Connection Size	Range, Water GPM (LPM)
HFB-2-05	1/2" female NPT	0.5-5.0 (1-19)
HFB-3-15	3/4" female NPT	2-15 (7.5-55)
HFB-3-20	3/4" female NPT	2-20 (7.5-75)
HFB-4-35	1" female NPT	5-35 (19-130)
HFB-5-50	1-1/2" female NPT	5-50 (19-189)
HFB-5-100	1-1/2" female NPT	10-100 (38-379)
HFB-6-75	2" female NPT	8-75 (31-284)
HFB-6-150	2" female NPT	20-150 (76-568)

Model	Connection Size	Range, GPM (LPM) Oil
HFL-2-05	1/2" female NPT	0.5-5.0 (1-19)
HFL-4-25	1" female NPT	2-25 (7.5-95)

**304 SS body for high-pressure fluids:**

Model	Connection Size	Range, Water GPM (LPM)
HFS-2-02	1/2" female NPT	0.2-2.0 (0.75-7.5)
HFS-2-10	1/2" female NPT	0.5-10 (1.9-38)

**Brass body high temperature 400°F for water based fluids: (205°C)**

Model	Connection Size	Range, Water GPM (LPM)
HFH-2-05	1/2" female NPT	0.5-5.0 (1-19)
HFH-2-10	1/2" female NPT	1-10 (3.8-38)
HFH-4-35	1" female NPT	5-35 (19-130)

**Aluminum, Brass, and Stainless Steel for air and other non-corrosive gases:**

Aluminum	Brass	Stainless Steel	Connection (NPT female, dry seal)	Range scfm (lps)
HFA-1-001	HFB-1-001	HFS-1-001	1/4"	1.5-12 (0.5-5.5)
HFA-1-002	HFB-1-002	HFS-1-002	1/4"	4-23 (2-10)
HFA-1-003	HFB-1-003	HFS-1-003	1/4"	5-50 (2.5-25)
HFA-1-004	HFB-1-004	HFS-1-004	1/4"	10-100 (5-45)
HFA-8-001	HFB-8-001	HFS-8-001	3/8"	1.5-12 (.5-5.5)
HFA-8-002	HFB-8-002	HFS-8-002	3/8"	4-23 (2-10)
HFA-8-003	HFB-8-003	HFS-8-003	3/8"	5-50 (2.5-25)
HFA-8-004	HFB-8-004	HFS-8-004	3/8"	10-100 (5-45)
HFA-2-001	HFB-2-001	HFS-2-001	1/2"	1.5-12 (.5-5.5)
HFA-2-002	HFB-2-002	HFS-2-002	1/2"	4-23 (2-10)
HFA-2-003	HFB-2-003	HFS-2-003	1/2"	5-50 (2.5-25)
HFA-2-004	HFB-2-004	HFS-2-004	1/2"	10-100 (5-45)
HFA-3-003	HFB-3-003	HFS-3-003	3/4"	5-50 (3-23)
HFA-3-004	HFB-3-004	HFS-3-004	3/4"	10-100 (4-48)
HFA-3-005	HFB-3-005	HFS-3-005	3/4"	15-150 (8-56)
HFA-3-006	HFB-3-006	HFS-3-006	3/4"	30-330 (20-150)
HFA-4-003	HFB-4-003	HFS-4-003	1"	5-50 (3-23)
HFA-4-004	HFB-4-004	HFS-4-004	1"	10-100 (4-48)
HFA-4-005	HFB-4-005	HFS-4-005	1"	15-150 (8-56)
HFA-4-006	HFB-4-006	HFS-4-006	1"	30-330 (20-150)
HFA-9-007	HFB-9-007	HFS-9-007	1-1/4"	30-470 (15-220)
HFA-9-008	HFB-9-008	HFS-9-008	1-1/4"	150-900 (75-425)
HFA-5-007	HFB-5-007	HFS-5-007	1-1/2"	30-470 (15-220)
HFA-5-008	HFB-5-008	HFS-5-008	1-1/2"	150-900 (75-425)