

ECONOMICAL IN-LINE LIQUID FLOW METERS



FLMW and FLMH Series



- ✓ Direct-Reading Dual Scales
- ✓ Ranges from 0.1 to 150 GPM
- ✓ High Pressure: 3500 psi (Brass or Aluminum); 6000 psi (Stainless Steel)
- ✓ High Temperature: 116°C (240°F) Standard, 204 or 316°C (400 or 600°F) Optional
- ✓ Mounts in Any Position
- ✓ Relay Alarms and Analog Outputs Optional

The FLMW and FLMH flow meters can be installed directly in the fluid line without flow straighteners or special piping.

The spring-and-piston type assembly enables these flow meters to be mounted in any position and protects them against changes in viscosity.

The FLMW or the FLMH Series with the optional analog output (-MA) are typically used to transmit a signal proportional to the flow rate to a process controller, a PLC, a recorder, or a panel-mount display. With the -MA options the user can choose between reading a 0 to 2000 Hz square-wave pulse, a 0 to 5 Vdc analog signal, or a 2-wire 4 to 20 mA analog signal by connecting the appropriate pins.

SPECIFICATIONS

Measuring Accuracy: ±2% FS over the entire scale range

Repeatability: ±1% FS

Flow Measuring Range:

0.4 to 550 LPM (0.1 to 150 GPM)

Max Operating Pressure:

Aluminum and Brass Monitors: 240 bar (3500 psig)

Stainless Steel Monitors: 410 bar (6000 psig) up to 116°C (240°F)

Max Operating Temperature:

116°C (240°F)

[Note: For high temperature (“-HT”, “-UHT”), see chart on next page.]

All models shown smaller than actual size.



FLMW-1205BR-MA
5 GPM oil meter with
4 to 20 mA output

Standard Calibration Fluids:

Oil Monitors:

DTE 25 @ 43°C (110°F), 0.873 sg

Water Monitors:

Tap water @ 21°C (70°F), 1.0 sg

Maximum Particle Size:

76 microns

Relay (Optional):

1 or 2 form “C” relays, rated 10 A @ 125 or 250 Vac or 0.25 A @ 250 Vdc

Mechanical Life:

>10⁷ cycles

Analog Output (Optional):

Supply voltage 12 to 35 Vdc, field selectable for 0 to 5 Vdc (100 W minimum load), 0 to 2000 Hz square-wave pulse or 4 to 20 mA

R_{max} = 50 (V_S-12). V_S = supply voltage DC

FLMH-3810AL

FLMW-3405BR
5 GPM water meter

Materials of Construction (Wetted Components)

Description	Aluminum (Not for Water)	Brass	Stainless Steel
High-pressure casing, end ports and tapered shaft	Aluminum	Brass	304 SS
Seals	Buna (STD), EPR, FKM or Perfluoroelastomer	Buna (STD), EPR, FKM or Perfluoroelastomer	FKM with PTFE backup (STD) Buna, EPR or Perfluoroelastomer
Transfer magnet	PTFE-coated Alnico	PTFE-coated Alnico	PTFE-coated Alnico
Floating orifice disk	Stainless steel	Stainless steel	Stainless steel
All other internal parts	Stainless steel	Stainless steel	Stainless steel

Materials of Construction (Non-Wetted Components)

Description	Aluminum	Brass	Stainless Steel
Window tube	Polycarbonate (STD), Pyrex®	Polycarbonate (STD), Pyrex	Polycarbonate (STD), Pyrex
Window seals	Buna (STD)	Buna (STD)	Buna (STD)

Port Sizes	¼ to 1½ FNPT
Installation Dimensions	¼ and ½ Port: 1¼ OD x 168 mm (6.6") length ¾ and 1.0 Port: 2¼ OD x 183 mm (7.2") length 1¼ and 1½ Port: 3¼ OD x 257 mm (10.1") length

Oil Flow meters

To Order

Model No.	Max Rate LPM (GPM)	NPT Conn Size
FLMH-1401(*)	4 (1)	¼
FLMH-1402(*)	8 (2)	¼
FLMH-1405(*)	19 (5)	¼
FLMH-1410(*)	37 (10)	¼
FLMH-1415(*)	58 (15)	¼
FLMH-3801(*)	4 (1)	⅜
FLMH-3802(*)	8 (2)	⅜
FLMH-3805(*)	19 (5)	⅜
FLMH-3810(*)	37 (10)	⅜
FLMH-3815(*)	58 (15)	⅜
FLMH-1201(*)	4 (1)	½
FLMH-1202(*)	8 (2)	½
FLMH-1205(*)	19 (5)	½
FLMH-1210(*)	37 (10)	½
FLMH-1215(*)	58 (15)	½

* Indicate material: **AL** = aluminum, **standard**; **BR** = brass, **SS** = stainless steel for additional cost.

Model No.	Max Rate LPM (GPM)	NPT Conn Size
FLMH-3402(*)	8 (2)	¾
FLMH-3405(*)	19 (5)	¾
FLMH-3410(*)	37 (10)	¾
FLMH-3415(*)	58 (15)	¾
FLMH-3420(*)	74 (20)	¾
FLMH-3425(*)	100 (25)	¾
FLMH-3430(*)	115 (30)	¾
FLMH-3440(*)	150 (40)	¾
FLMH-1002(*)	8 (2)	1
FLMH-1005(*)	19 (5)	1
FLMH-1010(*)	37 (10)	1
FLMH-1015(*)	58 (15)	1
FLMH-1020(*)	74 (20)	1
FLMH-1025(*)	100 (25)	1
FLMH-1030(*)	115 (30)	1
FLMH-1040(*)	150 (40)	1

* Indicate material: **AL** = aluminum, **standard**; **BR** = brass, **SS** = stainless steel for additional cost

Model No.	Max Rate LPM (GPM)	NPT Conn Size
FLMH-114025(*)	100 (25)	1¼
FLMH-114050(*)	185 (50)	1¼
FLMH-114075(*)	280 (75)	1¼
FLMH-114100(*)	370 (100)	1¼
FLMH-114150(*)	550 (150)	1¼
FLMH-112025(*)	100 (25)	1½
FLMH-112050(*)	185 (50)	1½
FLMH-112075(*)	280 (75)	1½
FLMH-112100(*)	370 (100)	1½
FLMH-112150(*)	550 (150)	1½

* Indicate material: **AL** = aluminum, **standard**; **BR** = brass, **SS** = stainless steel, for additional cost

Note: Minimum flow rate = 10% of maximum.

Water Flow meters

To Order

Model No.	Max Rate LPM (GPM)	NPT Conn Size
FLMW-1401(*)	4 (1)	¼
FLMW-1402(*)	8 (2)	¼
FLMW-1405(*)	19 (5)	¼
FLMW-1410(*)	37 (10)	¼
FLMW-3801(*)	4 (1)	⅜
FLMW-3802(*)	8 (2)	⅜
FLMW-3805(*)	19 (5)	⅜
FLMW-3810(*)	37 (10)	⅜
FLMW-3815(*)	58 (15)	⅜
FLMW-1201(*)	4 (1)	½
FLMW-1202(*)	8 (2)	½
FLMW-1205(*)	19 (5)	½
FLMW-1210(*)	37 (10)	½
FLMW-1215(*)	58 (15)	½

* Indicate material: **BR**=brass, **standard**; **SS**=stainless steel for additional cost.

Model No.	Max Rate LPM (GPM)	NPT Conn Size
FLMW-3402(*)	4 (2)	¾
FLMW-3405(*)	19 (5)	¾
FLMW-3410(*)	37 (10)	¾
FLMW-3415(*)	58 (15)	¾
FLMW-3420(*)	74 (20)	¾
FLMW-3425(*)	100 (25)	¾
FLMW-3430(*)	115 (30)	¾
FLMW-3440(*)	150 (40)	¾
FLMW-1002(*)	4 (2)	1
FLMW-1005(*)	19 (5)	1
FLMW-1010(*)	37 (10)	1
FLMW-1015(*)	58 (15)	1
FLMW-1020(*)	74 (20)	1
FLMW-1025(*)	100 (25)	1
FLMW-1030(*)	115 (30)	1
FLMW-1040(*)	150 (40)	1

* Indicate material: **BR**=brass, **standard**; **SS**=stainless steel for additional cost.

Model No.	Max Rate LPM (GPM)	NPT Conn Size
FLMW-114025(*)	100 (25)	1¼
FLMW-114050(*)	185 (50)	1¼
FLMW-114075(*)	280 (75)	1¼
FLMW-114100(*)	370 (100)	1¼
FLMW-114150(*)	550 (150)	1¼
FLMW-112025(*)	100 (25)	1½
FLMW-112050(*)	185 (50)	1½
FLMW-112075(*)	280 (75)	1½
FLMW-112100(*)	370 (100)	1½
FLMW-112150(*)	550 (150)	1½

* Indicate material: **BR**=brass, **standard**; **SS**=stainless steel for additional cost.

Options

Order Suffix	Description
-HT	High temperatures, 204°C (400°F) max
-UHT	Ultra high temperatures, 315°C (600°F) max
-R1	Single SPDT relay, 10 A @ 220 Vac
-R2	Dual SPDT relays, 10 A @ 220 Vac
-MA	4 to 20 mA output (12 to 35 Vdc powered)
-BDF	Bi-directional flow (not available with 1½" size units, or with UHT, R1, R2, or MA options) ¼ to ½", ¾ to 1", 1½" sizes for additional cost
-NIST	NIST traceable certificate

Note: Only one option may be ordered with each unit for additional cost. Options are available for additional cost.
For Bi-directional flow add "-BDF" to model number.
For BSPP threads add "-BSPP" to model number.

PRESSURE DROP GRAPHS

FLMG, FLMW, and FLMH



