

ELECTROMAGNETIC FLOWMETERS

FMG-401H
\$2500
 Basic Unit



FMG-430H, \$6183, shown smaller than actual size.



- ✓ **±0.5% Accuracy**
- ✓ **Clear, Backlit LCD Display**
- ✓ **Rotational Display**
- ✓ **Easily Programmed**
- ✓ **Easy Wiring**
- ✓ **Unique Noise Suppressor**

These cost-effective magnetic flowmeters combine superior noise immunity with high purity Alumina ceramic detection tubes, allowing precise measurements in a wide range of applications. Available in pipe sizes from ½ to 16" to accommodate many materials: chemicals, corrosives, foods, pulp and other solid matter slurry flows. Unique noise-suppression circuitry utilizes the optimum square-waved excitation frequency, eliminating various noises generated by slurries, making this flowmeter ideal for pulp, food and grout applications.

SPECIFICATIONS

Accuracy:

±0.25% FS or ±0.5% of rate at <1.0 m/s
 ±0.1% FS or ±0.5% of rate at 1.0 to 10 m/s

Fluid Electrical Conductivity

Minimum: 5 µS/cm

Fluid Temperature:

-10 to 120°C (14 to 250°F)

Ambient Temperature:

-10 to 60°C (14 to 140°F)

Fluid Pressure:

290 psig

Enclosure:

NEMA-4X (IP-67)

corrosion-resistance type

Metering Tube Case:

Carbon steel

Electronic Housing:

Aluminum alloy

Display:

LCD, 16-column, 2-row LCD,

alphanumeric with backlight

16 Engineering Programmable Units

Including: %, MPS, GPM, LPM, m³/s

Output: 4 to 20 mA/dc current with

digital I/O provided, 1 open collector

Load Resistance: 0 to 1 k ohm

Capacity: 30 mA dc max. 200 mA

Flange:

ANSI 150

Electrode:

Hastelloy

Grounding Ring:

316L SS

Wafer: ½ to 4": Ceramic lining 6 to 8":

Teflon® PFA lining; no coating for sizes

1 to 4" sizes; all other sizes have

phthalic acid resin coating

Flanged: Teflon® PFA lining; phthalic

acid resin coating

Power Supply: 100 to 240 Vac,
 50/60 Hz power supply
 (24 Vdc option)

Cable Connection Ports:

A cable gland with a cap nut is provided for each port

Power Cable

Requirements:

Dia: 11 to 13 mm
 (0.43 to 0.51"), 3-wire
 sheathed (not included)

Cable Gland

Material: Nylon 66

Port Holes in the

Housing: G(PF)

½" female screw

Vibration Resistance:

No resonance to the following levels of vibration:

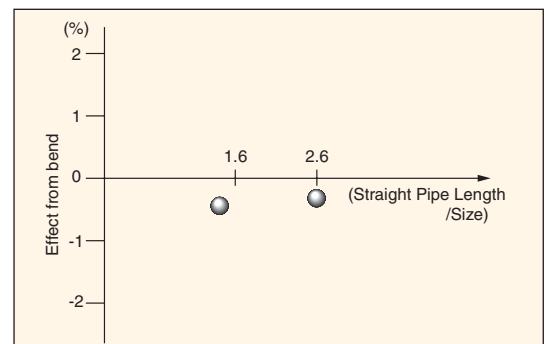
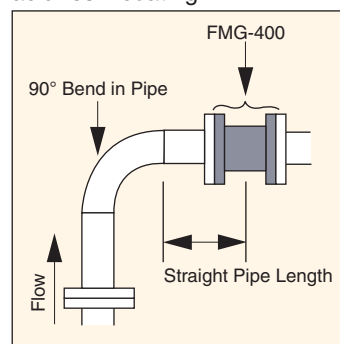
10 to 60 Hz, amplitude 0.07 mm
 60 to 150 Hz with acceleration of 9.8 m/s²

Heat shock resistance for ceramic tube detector:

Heating: ΔT ≤150°C/0.5s

Cooling: ΔT ≤100°C/0.5s

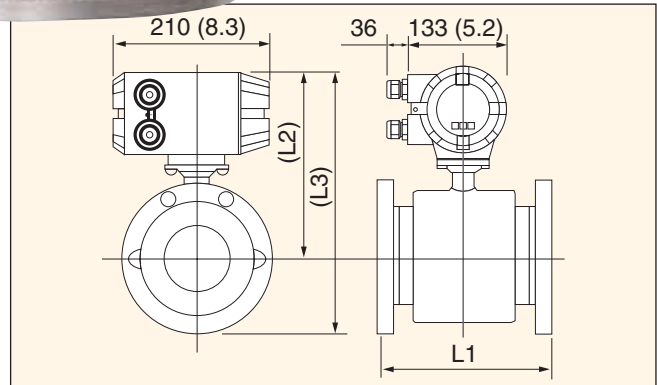
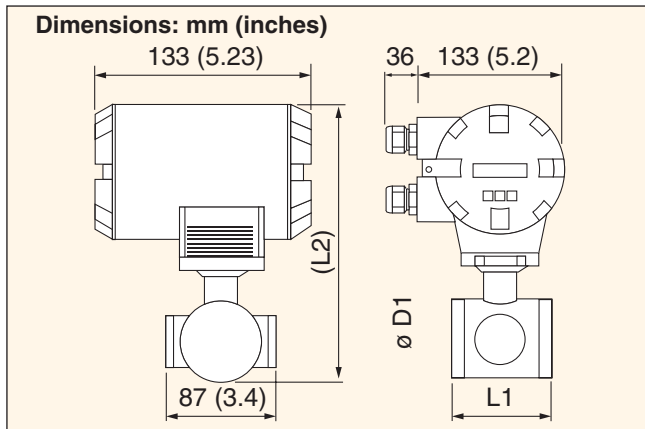
Note: Avoid constant vibration environments



High accuracy is assured even when a magnetic flowmeter is mounted downstream of a 90-degree bend in pipe.



FMG-430H, \$6183, shown smaller than actual size.



Flange Dimensions: mm (inches)

Wafer Dimensions: mm (inches)

Meter Size	L1	L2	D1	Weight kg (lb)
13 (1/2)	70 (2 3/4)	248 (9 3/4)	48 (1 7/8)	approx. 4 (9)
25 (1)	79 (3 1/8)	235 (9 1/4)	67 (2 5/8)	approx. 5 (11)
38 (1 1/2)	102 (4)	260 (10 1/4)	86 (3 3/8)	approx. 6 (13)
51 (2)	111 (4 3/8)	276 (10 7/8)	102 (4)	approx. 7 (16)
75 (3)	111 (4 3/8)	302 (11 7/8)	127 (5)	approx. 8 (18)
102 (4)	111 (4 3/8)	333 (13 1/8)	159 (6 1/4)	approx. 10 (22)
152 (6)	229 (9)	391 (15 3/8)	216 (8 1/2)	approx. 22 (49)
203 (8)	298 (11 3/4)	441 (17 3/8)	267 (10 5/8)	approx. 36 (80)

Meter Size	L1	L2	L3	No. of bolts	Weight kg (lb)
13 (1/2)	140 (5 1/2)	216 (8 1/2)	235 (9 1/4)	4	approx. 6 (14)
25 (1)	159 (6 1/4)	219 (8 5/8)	254 (10)	4	approx. 8 (18)
38 (1 1/2)	171 (6 3/4)	225 (8 7/8)	270 (10 5/8)	4	approx. 11 (25)
51 (2)	191 (7 1/2)	235 (9 1/4)	286 (11 1/4)	4	approx. 12 (27)
76 (3)	229 (9)	248 (9 3/4)	314 (12 3/8)	4	approx. 18 (40)
102 (4)	241 (9 1/2)	267 (10 1/2)	346 (13 5/8)	8	approx. 22 (49)
152 (6)	260 (10 1/4)	298 (11 3/4)	410 (16 1/8)	8	approx. 37 (82)
203 (8)	298 (11 3/4)	324 (12 3/4)	460 (18 1/8)	12	approx. 50 (111)
254 (10)	349 (13 3/4)	346 (13 5/8)	518 (20 3/8)	12	approx. 106 (234)
305 (12)	400 (15 3/4)	371 (14 5/8)	568 (22 3/8)	12	approx. 113 (250)
356 (14)	451 (17 3/4)	391 (15 3/8)	606 (23 7/8)	12	approx. 130 (287)
406 (16)	498 (19 5/8)	410 (16 1/8)	664 (26 1/8)	16	approx. 178 (393)

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

Model No. Wafer Style	Price	Model No. Flange Style	Price	Pipe Size	Flow Rate			
					0.1 m/s	0.3 m/s	1 m/s	10 m/s
FMG-401H	\$2500	FMG-421H	\$2645	0.5"	0.28 GPM	0.84 GPM	2.80 GPM	28.00 GPM
FMG-402H	2600	FMG-422H	2645	1.0"	0.77 GPM	2.33 GPM	7.77 GPM	77.79 GPM
FMG-403H	2600	FMG-423H	2776	1.5"	1.99 GPM	5.97 GPM	19.91 GPM	199.13 GPM
FMG-404H	2679	FMG-424H	2978	2.0"	3.11 GPM	9.33 GPM	31.11 GPM	311.14 GPM
FMG-405H	2825	FMG-425H	3219	3.0"	7.96 GPM	23.89 GPM	79.64 GPM	796.46 GPM
FMG-406H	3145	FMG-426H	3330	4.0"	12.44 GPM	37.34 GPM	124.46 GPM	1244.66 GPM
FMG-407H	3292	FMG-427H	3588	6.0"	28.00 GPM	84.00 GPM	280.06 GPM	2800.60 GPM
FMG-408H	3767	FMG-428H	4116	8.0"	49.79 GPM	149.38 GPM	497.75 GPM	4979.54 GPM
-	-	FMG-429H	4937	10.0"		233.39 GPM	777.97 GPM	7779.70 GPM
-	-	FMG-430H	6183	12.0"		336.10 GPM	1120.50 GPM	11205.06 GPM
-	-	FMG-431H	6722	14.0"		457.44 GPM	1525.12 GPM	15251.22 GPM
-	-	FMG-432H	7330	16.0"		597.45 GPM	1991.37 GPM	19913.76 GPM
FW-202	\$250	Reference Book: The Consumers Guide to Magnetic Flowmeters						

Comes with complete operator's manual. For optional Hastelloy grounding ring, please consult the Flow Engineers for details.

Ordering Examples: FMG-401H, wafer-style electromagnetic flowmeter for 0.5" diameter pipe, \$2500; FMG-434H, flange-style electromagnetic flowmeter for 2" diameter pipe, \$2978.

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