

# ELECTROMAGNETIC FLOWMETER



FMG600 Series  
Starts at

**\$3450**



- ✓ Virtually No Pressure Loss
- ✓ No Moving Parts
- ✓ ANSI 150# Flanges or Tri-Clover Sanitary Mount
- ✓ RS485 Standard
- ✓ Suitable for Pipes Up to 305 mm (12")
- ✓ High Accuracy
- ✓ 4 to 20 mA and Frequency Outputs Standard
- ✓ NIST 3-Point Calibration Included



FMG606, 51 mm (2") meter with 150# flanges, \$3650, shown smaller than actual size.



The FMG600 Series electromagnetic flowmeters are designed for measurement of conductive liquids. With no moving parts and a PTFE lining, they can handle applications involving wastewater, pulp, food, and slurries. Standard outputs include analog, frequency, and RS485 communications. Optional sanitary tri-clamp mounting allows use of the FMG600 flowmeters in applications not previously open to magmeters. Local- and remote- display models are available.

## SPECIFICATIONS

### Flange Sizes:

**150# ANSI:** 19 to 305 mm (¾ to 12")

**Sanitary Tri-Clamp:**  
13 to 305 mm (½ to 12")

**Maximum Pressure:** 145 psi

**Minimum Conductivity:** 20 µS

**Electrode Material:** Hastelloy C4 (standard), tantalum (TGE optional)

**Environmental Temperature:**

-5 to 55°C (23 to 131°F)

**Sensor Lining:** PTFE

### Electronics Housing:

Local or remote (optional)

### Liquid Temperature:

0 to 50°C (32 to 122°F) STD,  
0 to 150°C (32 to 302°F) with  
remote electronics

**Empty Pipe Alarm:** Available on  
2" and larger sizes (-EPD option)

**Accuracy:** ±0.5% from 5 to 100% Qs,  
±1% from 1 to 5% Qs

**Range:** 0.1 to 10 m/s  
(0.328 to 32.81 fps)

**Outputs:** Adjustable from  
0.1 to 1000 gallons/pulse

**H-X**

### Current:

4 to 20 mA with galvanic isolation

### Frequency:

0 to 1000 Hz with galvanic isolation

**Communications:** RS485

**Power:** 24 Vdc, 115/230 Vac  
switchable (optional)

**Consumption:** 15 VA

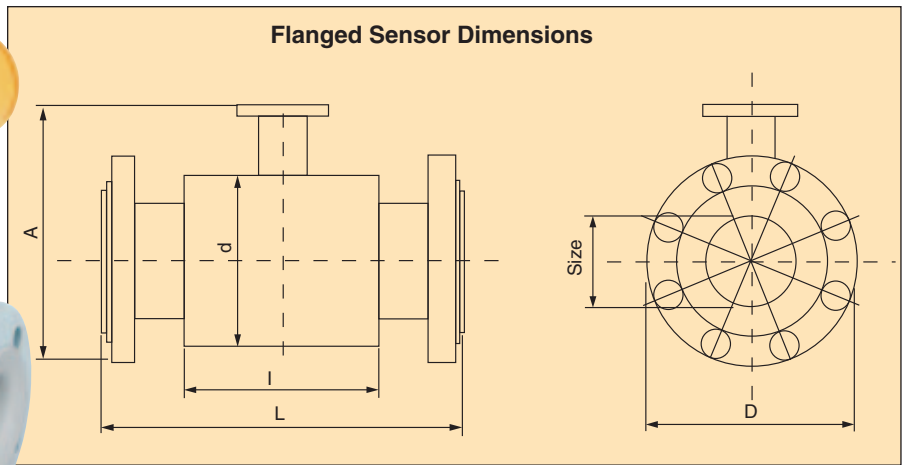
**Protection:** IP67

**Storage Temperature and Humidity:**

-10 to 70°C (14 to 158°F) at max;  
relative humidity 70%



FMG605, \$3529, shown smaller than actual size.

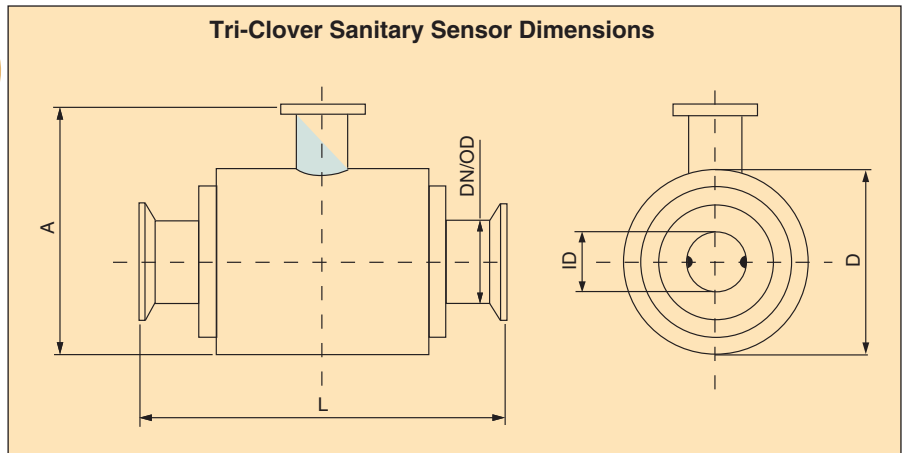


**Flanged Sensor Dimensions**

| Nominal size<br>mm (in) | D<br>mm (in) | d<br>mm (in) | A<br>mm (in) | L<br>mm (in) | I<br>mm (in) | Weight<br>kg (lb) |
|-------------------------|--------------|--------------|--------------|--------------|--------------|-------------------|
| 15 (½)                  | 89 (3.5)     | 62 (2.4)     | 164 (6.5)    | 200 (7.9)    | 66 (2.6)     | 3.5 (7.7)         |
| 20 (¾)                  | 99 (3.9)     | 62 (2.4)     | 170 (6.7)    | 200 (7.9)    | 66 (2.6)     | 3.5 (7.7)         |
| 25 (1)                  | 108 (4.3)    | 72 (2.8)     | 180 (7.1)    | 200 (7.9)    | 96 (3.8)     | 3.5 (7.7)         |
| 32 (1¼)                 | 117 (4.6)    | 82 (3.2)     | 199 (7.8)    | 200 (7.9)    | 96 (3.8)     | 6 (13.2)          |
| 40 (1½)                 | 127 (5.0)    | 92 (3.6)     | 209 (8.2)    | 200 (7.9)    | 96 (3.8)     | 7 (15.4)          |
| 50 (2)                  | 152 (6.0)    | 107 (4.2)    | 223 (8.8)    | 200 (7.9)    | 96 (3.8)     | 8 (17.6)          |
| 65 (2½)                 | 178 (7.0)    | 127 (5.0)    | 244 (9.6)    | 200 (7.9)    | 96 (3.8)     | 10 (22.0)         |
| 80 (3)                  | 191 (7.5)    | 142 (5.6)    | 260 (10.2)   | 200 (7.9)    | 96 (3.8)     | 12 (26.5)         |
| 100 (4)                 | 229 (9.0)    | 162 (6.4)    | 280 (11.0)   | 250 (9.8)    | 96 (3.8)     | 16 (35.3)         |
| 125 (5)                 | 254 (10.0)   | 192 (7.6)    | 310 (12.2)   | 250 (9.8)    | 126 (5.0)    | 21 (46.3)         |
| 150 (6)                 | 279 (11.0)   | 218 (8.6)    | 340 (13.4)   | 300 (11.8)   | 126 (5.0)    | 28 (61.7)         |
| 200 (8)                 | 343 (13.5)   | 274 (10.8)   | 398 (15.7)   | 350 (13.8)   | 211 (8.3)    | 35 (77.2)         |
| 250 (10)                | 406 (16.0)   | 370 (14.6)   | 480 (18.9)   | 450 (17.7)   | 211 (8.3)    | 43 (94.8)         |
| 300 (12)                | 483 (19.0)   | 420 (16.5)   | 535 (21.1)   | 500 (19.7)   | 320 (12.6)   | 55 (121.3)        |



FMG601-S, \$4120, shown smaller than actual size.



**Tri-Clover Sanitary Sensor Dimensions**

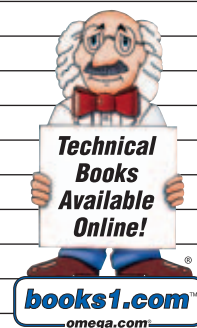
| Nominal Size DN<br>mm (in) | ID<br>mm (in) | D<br>mm (in) | A<br>mm (in) | L<br>mm (in) | Weight<br>kg (lb) |
|----------------------------|---------------|--------------|--------------|--------------|-------------------|
| 15 (½)                     | 9.40 (0.37)   | 74 (2.90)    | 143 (5.6)    | 137 (5.4)    | 3.5 (1.6)         |
| 20 (¾)                     | 15.75 (0.62)  | 74 (2.90)    | 143 (5.6)    | 137 (5.4)    | 3.5 (1.6)         |
| 25 (1)                     | 22.10 (0.87)  | 74 (2.90)    | 143 (5.6)    | 137 (5.4)    | 3.7 (1.7)         |
| 40 (1½)                    | 34.80 (1.37)  | 94(3.70)     | 163 (6.4)    | 137 (5.4)    | 4.8 (4.8)         |
| 50 (2)                     | 47.50 (4.1)   | 104 (1.87)   | 173 (6.8)    | 137 (5.4)    | N/A               |
| 65 (2½)                    | 60.20 (2.37)  | 129 (5.10)   | 199 (7.8)    | 192 (7.6)    | N/A               |

Weights of the sensors are approximate.

— MOST POPULAR MODELS HIGHLIGHTED!



| To Order (Specify Model Number) |        |  |         |   |
|---------------------------------|--------|--|---------|---|
| Model No.                       | Price  | Size: mm (in)  | Max GPM | Description   |
| FMG601-S                        | \$4120 | 15 (1/2)   | 11      | SS sanitary mount magmeter with empty pipe detection                    |
| FMG601-S-R                      | 4728   | 15 (1/2)   | 11      | SS Sanitary mount magmeter with empty pipe detection and remote display |
| FMG602                          | 3450   | 20 (3/4)   | 52      | 150# ANSI flange magmeter with empty pipe detection                     |
| FMG602-R                        | 4041   | 20 (3/4)   | 52      | 150# ANSI flange magmeter with empty pipe detection and remote display  |
| FMG602-S                        | 4206   | 20 (3/4)   | 31      | SS sanitary mount magmeter with empty pipe detection                    |
| FMG602-S-R                      | 4797   | 20 (3/4)   | 31      | SS sanitary mount magmeter with empty pipe detection and remote display |
| FMG603                          | 3476   | 25 (1)   | 79      | 150# ANSI flange magmeter with empty pipe detection                     |
| FMG603-R                        | 4059   | 25 (1)   | 79      | 150# ANSI flange magmeter with empty pipe detection and remote display  |
| FMG603-S                        | 4276   | 25 (1)   | 61      | SS sanitary mount magmeter with empty pipe detection                    |
| FMG603-S-R                      | 4867   | 25 (1)   | 61      | SS sanitary mount magmeter with empty pipe detection and remote display |
| FMG604                          | 3520   | 32 (1 1/4)   | 132     | 150# ANSI flange magmeter with empty pipe detection                     |
| FMG604-R                        | 4102   | 32 (1 1/4)   | 132     | 150# ANSI flange magmeter with empty pipe detection and remote display  |
| FMG604-S                        | 4380   | 32 (1 1/4)   | 96      | SS sanitary mount magmeter with empty pipe detection                    |
| FMG604-S-R                      | 5041   | 32 (1 1/4)   | 96      | SS sanitary mount magmeter with empty pipe detection and remote display |
| FMG605                          | 3529   | 40 (1 1/2)   | 198     | 150# ANSI flange magmeter with empty pipe detection                     |
| FMG605-R                        | 4120   | 40 (1 1/2)   | 198     | 150# ANSI flange magmeter with empty pipe detection and remote display  |
| FMG605-S                        | 4589   | 40 (1 1/2)   | 151     | SS sanitary mount magmeter with empty pipe detection                    |
| FMG605-S-R                      | 5214   | 40 (1 1/2)   | 151     | SS sanitary mount magmeter with empty pipe detection and remote display |
| FMG606                          | 3650   | 50 (2)   | 317     | 150# ANSI flange magmeter   |
| FMG606-R                        | 4233   | 50 (2)   | 317     | 150# ANSI flange magmeter and remote display                            |
| FMG606-S                        | 4797   | 50 (2)   | 281     | SS sanitary mount magmeter  |
| FMG606-S-R                      | 5440   | 50 (2)   | 281     | SS sanitary mount magmeter and remote display                           |
| FMG607                          | 3772   | 65 (2 1/2)   | 528     | 150# ANSI flange magmeter   |
| FMG607-R                        | 4363   | 65 (2 1/2)   | 528     | 150# ANSI flange magmeter and remote display                            |
| FMG607-S                        | 5006   | 65 (2 1/2)   | 451     | SS sanitary mount magmeter  |
| FMG607-S-R                      | 5788   | 65 (2 1/2)   | 451     | SS sanitary mount magmeter and remote display                           |
| FMG608                          | 3928   | 80 (3)   | 793     | 150# ANSI flange magmeter   |
| FMG608-R                        | 4519   | 80 (3)   | 793     | 150# ANSI flange magmeter and remote display                            |
| FMG609                          | 4189   | 100 (4)  | 1233    | 150# ANSI flange magmeter   |
| FMG609-R                        | 4771   | 100 (4)  | 1233    | 150# ANSI flange magmeter and remote display                            |
| FMG610                          | 4919   | 125 (5)  | 1893    | 150# ANSI flange magmeter   |
| FMG610-R                        | 5501   | 125 (5)  | 1893    | 150# ANSI flange magmeter and remote display                            |
| FMG611                          | 5606   | 150 (6)  | 2862    | 150# ANSI flange magmeter   |
| FMG611-R                        | 6196   | 150 (6)  | 2862    | 150# ANSI flange magmeter and remote display                            |
| FMG612                          | 8456   | 200 (8)  | 5063    | 150# ANSI flange magmeter   |
| FMG612-R                        | 9047   | 200 (8)  | 5063    | 150# ANSI flange magmeter and remote display                            |
| FMG613                          | 10,533 | 250 (10)   | 7925    | 150# ANSI flange magmeter   |
| FMG613-R                        | 11,115 | 250 (10)   | 7925    | 150# ANSI flange magmeter and remote display                            |
| FMG614                          | 12,896 | 300 (12)   | 11,100  | 150# ANSI flange magmeter   |
| FMG614-R                        | 13,479 | 300 (12)   | 11,100  | 150# ANSI flange magmeter and remote display                            |
| FW-204                          | 250    | Reference Book: The Consumer Guide to Vortex Shedding Flowmeters |         |   |



**Optional Equipment:**

For units with switchable 115/230 Vac power, add “-VAC” to the model number and subtract \$100 from the price.

For empty pipe detection on units 2" and larger, add “-EPD” to the model number and add \$300 to the price.

For units with a batching option, add “-B” to the model number and add \$320 to the price.

For units with tantalum electrodes, add “-TE” to the price and add \$490 to the price.

If a third tantalum grounding electrode is needed, add “-TGE” to the model number and add \$250 to the price.

If a third hastelloy grounding electrode is needed, add “-HGE” to the model number and add \$200 to the price.

For a 4-point NIST calibration, add “-NIST4” to the model number and add \$520 to the price.

For a 10-point NIST calibration, add “-NIST10” to the model number and add \$1040 to the price.

Comes complete with operator's manual and 3-point NIST calibration certificate.

**Ordering Examples:** FMG606-R-EPD, 2", 150# flange mount magmeter with remote electronics and empty pipe detection, \$4233 + 300 = \$4533.

FMG605-NIST4, 150# flange mount magmeter with optional 4-point NIST calibration, \$3529 + 520 = \$4049.

# omega.co.uk<sup>®</sup>

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

[www.omega.co.uk](http://www.omega.co.uk)



#### UNITED STATES

[www.omega.com](http://www.omega.com)

1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)

Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)

Deckenfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)

Manchester, England  
0800-488-488  
+44-(0)161-777-6611

#### FRANCE

[www.omega.fr](http://www.omega.fr)

0800-466-342

#### BENELUX

[www.omega.nl](http://www.omega.nl)

0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485, Ethernet and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters