## STAINLESS STEEL GAS MASS FLOWMETERS AND CONTROLLERS For Clean Gases

FMA2800 Series Starts at

## MADE IN 1 YEAR NIST

(n)

#### Economical

WARRANTY

USA

#### Compact and Lightweight Power Supply Included

The FMA2700/FMA2800 Series electronic mass flowmeters and FMA3700/FMA3800 mass flow controllers provide high performance and versatility. OMEGA's new in-line series features a "flow-through" zero dead space design for quicker processing and lower contamination. Available with onboard display and wallmounted power supply, the in-line series is ideal for laboratory and test applications. Compact, lightweight, and economical, the FMA2700/FMA2800 Series electronic mass flowmeters and FMA3700/FMA3800 mass flow controllers are perfect for applications that require an all stainless steel construction.

#### **SPECIFICATIONS**

Accuracy: ±1% of full scale including linearity Repeatability: ±0.15% full scale or better Turndown Ratio: 100:1 Response Time: 5 seconds Gas Ambient Temperature: 0 to 50°C (32 to 122°F) Temperature Coefficient: 0.05% full scale per 1°C or better **Pressure Coefficient:** 0.01% full scale per psi or better **Minimum Pressure Requirements:** Meters: 1 inch of H<sub>2</sub>O Controllers Up to 1 SLM: 1 psi Controllers Greater Than 20 SLM: 20 psi Differential Pressure for Mass Flow Controllers: <5 SLM, 5 to 50 psi standard; >5 SLM, 20 to 40 psi standard Maximum Gas Pressure: 500 psig Leak Integrity: 1 x 10<sup>-6</sup> cc/min of He or better Wetted Parts: 316 and 17-4 SS with FKM O-rings Gas Connections: 1/4" compression fitting Electrical Connection: 9-pin sub-D connector Control Signal: Integral or 0 to 5 Vdc

FMA3801, without display, \$893, shown smaller than actual size.

FMA3701, with display, \$993, shown smaller than actual size.



Control Valve: Electromagnetic, normally closed **Output Signal:** Linear 0 to 5 Vdc, 1000  $\Omega$  min load, 4 to 20 mA, 500  $\Omega$  loop resistance Input Power:

0

Meters: 24 Vdc @ 150 mA. 115 Vac, 220 Vac with AC adaptor Controller: 24 Vdc @ 300 mA. 115 Vac, 220 Vac with AC adaptor

**Dimensions:** 152.4 H x 83.5 W x 25.4 mm D (6.00 x 3.29 x 1.00") Weight: 1.57 kg (1.25 lb) with power supply

> **MOST POPULAR MODELS HIGHLIGHTED!**

| Order (Specify Model Number)        |  |   |  |  |   |   |  |
|-------------------------------------|--|---|--|--|---|---|--|
| Mass Gas<br>Flowmeters<br>w/Display |  | Mass Gas<br>Flowmeters<br>w/o Display   |  | Controller<br>w/Display  |   | Controller<br>w/o Display   |  |
| Price                               | Model<br>No.   | Price   | Model<br>No.   | Price  | Model<br>No.  | Price   | Max<br>Flow  |
| \$793                               | FMA2801  | \$693   | FMA3701  | \$993  | FMA3801   | \$893   | 10 SCCM  |
| 793                                 | FMA2802  | 693   | FMA3702  | 993  | FMA3802   | 893   | 20 SCCM  |
| 793                                 | FMA2803  | 693   | FMA3703  | 993  | FMA3803   | 893   | 50 SCCM  |
| 793                                 | FMA2804  | 693   | FMA3704  | 993  | FMA3804   | 893   | 100 SCCM   |
| 793                                 | FMA2805  | 693   | FMA3705  | 993  | FMA3805   | 893   | 200 SCCM   |
| 793                                 | FMA2806  | 693   | FMA3706  | 993  | FMA3806   | 893   | 500 SCCM   |
| 793                                 | FMA2807  | 693   | FMA3707  | 993  | FMA3807   | 893   | 1 SLM  |
| 793                                 | FMA2808  | 693   | FMA3708  | 993  | FMA3808   | 893   | 2 SLM  |
| 793                                 | FMA2809  | 693   | FMA3709  | 993  | FMA3809   | 893   | 5 SLM  |
| 793                                 | FMA2810  | 693   | FMA3710  | 993  | FMA3810   | 893   | 10 SLM   |
| 793                                 | FMA2811  | 693   | FMA3711  | 993  | FMA3811   | 893   | 15 SLM   |
| 793                                 | FMA2812  | 693   | FMA3712  | 993  | FMA3812   | 893   | 20 SLM   |
|                                     | as<br>ers<br>ay<br>Price<br>\$793<br>793<br>793<br>793<br>793<br>793<br>793<br>793<br>793<br>793 | Mass   Flowm   Signal   Model   Price Model   No. Model   \$793 FMA2801   793 FMA2802   793 FMA2803   793 FMA2804   793 FMA2805   793 FMA2806   793 FMA2806   793 FMA2807   793 FMA2808   793 FMA2808   793 FMA2808   793 FMA2801   793 FMA2801   793 FMA2801   793 FMA2801   793 FMA2810   793 FMA2811 | Mass Gas<br>Flowmeters<br>w/o Display   Model<br>No. Price   \$793 FMA2801 \$693   793 FMA2802 693   793 FMA2803 693   793 FMA2804 693   793 FMA2805 693   793 FMA2805 693   793 FMA2805 693   793 FMA2806 693   793 FMA2807 693   793 FMA2808 693   793 FMA2808 693   793 FMA2810 693   793 FMA2810 693 | Mass Gas<br>Flowmeters<br>w/o Display Contro<br>w/Disp   Price Model<br>No. Price Model<br>No.   \$793 FMA2801 \$693 FMA3701   793 FMA2802 693 FMA3702   793 FMA2803 693 FMA3703   793 FMA2804 693 FMA3704   793 FMA2805 693 FMA3705   793 FMA2805 693 FMA3705   793 FMA2806 693 FMA3706   793 FMA2806 693 FMA3706   793 FMA2806 693 FMA3707   793 FMA2807 693 FMA3707   793 FMA2808 693 FMA3708   793 FMA2808 693 FMA3708   793 FMA2809 693 FMA3709   793 FMA2810 693 FMA3710   793 FMA2811 693 FMA3711 | Mass Gas<br>Flowmeters<br>w/o Display Controller<br>w/Display   Price Model<br>No. Price Model<br>No. Price   \$793 FMA2801 \$693 FMA3701 \$993   793 FMA2802 693 FMA3702 993   793 FMA2803 693 FMA3703 993   793 FMA2804 693 FMA3705 993   793 FMA2805 693 FMA3704 993   793 FMA2804 693 FMA3705 993   793 FMA2805 693 FMA3705 993   793 FMA2806 693 FMA3705 993   793 FMA2806 693 FMA3707 993   793 FMA2808 693 FMA3708 993   793 FMA2809 693 FMA3708 993   793 FMA2810 693 FMA3710 993   793 FMA2810 693 FMA3710 993   793 FMA2811 693 | Mass Gas<br>Flowmeters<br>w/o Display Controller<br>w/Display Control<br>w/Display   Price Model<br>No. Price Model<br>No. Price Model<br>No.   \$793 FMA2801 \$693 FMA3701 \$993 FMA3801   793 FMA2802 693 FMA3702 993 FMA3802   793 FMA2803 693 FMA3703 993 FMA3803   793 FMA2804 693 FMA3705 993 FMA3804   793 FMA2804 693 FMA3705 993 FMA3804   793 FMA2805 693 FMA3705 993 FMA3805   793 FMA2806 693 FMA3705 993 FMA3805   793 FMA2806 693 FMA3706 993 FMA3806   793 FMA2806 693 FMA3707 993 FMA3807   793 FMA2808 693 FMA3708 993 FMA3808   793 FMA2808 693 FMA3708 993 FMA3808 | Mass Gas<br>Flowmeters<br>w/o Display Controller<br>w/Display Controller<br>w/o Display   Price Model<br>No. Price Model<br>No. Price Model<br>No. Price   \$793 FMA2801 \$693 FMA3701 \$993 FMA3801 \$893   793 FMA2802 693 FMA3702 993 FMA3802 893   793 FMA2803 693 FMA3703 993 FMA3803 893   793 FMA2804 693 FMA3703 993 FMA3803 893   793 FMA2804 693 FMA3705 993 FMA3804 893   793 FMA2805 693 FMA3705 993 FMA3805 893   793 FMA2806 693 FMA3705 993 FMA3806 893   793 FMA2806 693 FMA3706 993 FMA3806 893   793 FMA2808 693 FMA3708 993 FMA3808 893   793 FMA2808 693 FMA3708 |

#### Accessories

| Model No.  | Price | Description   |
|------------|-------|---|
| FMA-200PWA | \$80  | Replacement socket plug-in power supply for 90 to 260 Vac |
| GE-1400    | 110   | Reference Book: Flow Measurement                          |

Comes complete with operator's manual, 9-pin sub-D connector, power supply and NIST calibration (no data points).

For 5-point NIST calibration certificate, add suffix "-NIST5" to model number, no additional charge. For 10-point NIST calibration certificate, add suffix "-NIST10" to model number and \$125 to price. Ordering Examples: FMA2712, 20 SLM max mass flowmeter, \$793.

FMA3704, 100 SCCM max mass flow controller, \$993.

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