Fast-Trak™ Model 730

Fast Response, Ultra Stable Mass Flow Meter

Features

- 200 millisecond response to changes in flow rate
- Ultra stable Glass/Ceramic flow sensor
- Exceptional sensitivity over a wide range of flows:
  - Minimum < 1 slpm (0.03 scfm)
  - Maximum > 1400 slpm (50 scfm)
  - Always calibrated to individual needs
- Low insertion pressure loss
- Available in 316 Stainless Steel and Anodized Aluminum
- Outstanding performance at an economical price!
- Direct mass flow monitoring eliminates need for separate temperature and pressure inputs
- Large installed base
- CE approved

SIERRA® INSTRUMENTS
THE MASS FLOW COMPANY

ISO REGISTERED 9001

For information online...
www.sierrainstruments.com

Description

Sierra Instruments' Fast-Trak™ Model 730 Flow Meters provide outstanding measurement accuracy and 200 millisecond response time at a competitive price .

The Model 730 measures the mass flow rate of air and many process gases. The Fast-Trak meter is available in pipe sizes from 1/4-inch to 1 1/4-inches and delivers an electronic output signal proportional to total gas mass flow rate.

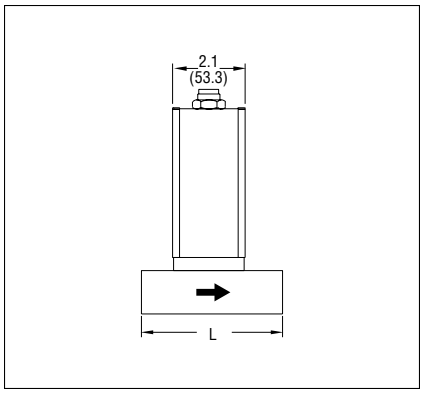
The Fast-Trak meter is ideal for monitoring flows of non-corrosive gases compatible with the device's wetted materials, and applications requiring fast time response. Gas mass velocity is monitored with Sierra's field-proven fast response thermal mass flow sensor—distinguished by its exceptional accuracy and speed of response.

Fast-Trak meters are available in a several configurations to satisfy every flow monitoring application. Output signal options include 0 to 5 VDC, 0 to 10 VDC or 4 to 20 mA, all proportional to gas mass flow rate, in your choice of engineering units. These units are CE approved.

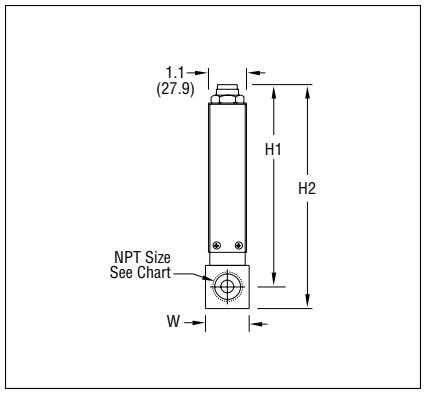
Dimensional Specifications

All dimensions are inches. Millimeters are in parentheses. Certified drawings are available on request.

1/4 to 3/4-inch NPT - Front View



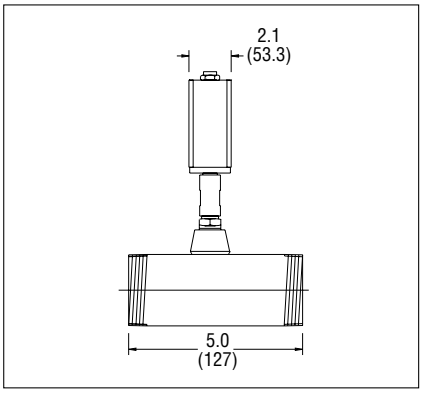
1/4 to 3/4-inch NPT - Outlet View



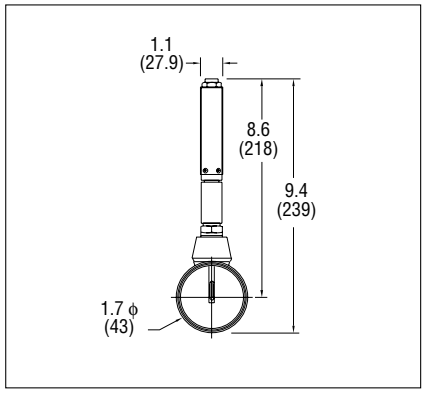
MODEL 730 DIMENSIONS

NPT Size	L	H1	H2	W
1/4-inch (Female)	3.1 (79)	5.8 (147)	6.4 (163)	1.2 (163)
1/2-inch (Female)	4.0 (102)	5.8 (147)	6.4 (163)	1.2 (163)
3/4-inch (Female)	4.0 (102)	5.8 (147)	6.4 (163)	1.2 (163)
1 1/4-inch (Female)	5.0 (127)	8.6 (218)	9.4 (239)	1.7 (43)

1 to 1/4-inch NPT - Front View



1-1/4-inch NPT - Outlet View



Performance Specifications

Accuracy
+/- 1% of full scale over 32° to 120°F (0° to 50°C) and
5 to 30 psia (0.3 to 2 barg)

Repeatability
+/- 0.2% of full scale

Temperature Coefficient
+/- 0.02% of reading per °F within +/- 50°F (25°C) of customer specified conditions
+/- 0.03% of reading per °F within +/- 50° to 100°F (25°C to 50°C) of customer specified conditions

Pressure Coefficient
0.02% per psi for air, consult factory for other gases

Response Time
200 milliseconds to 63% of final velocity value

Operating Specifications

Gases
Most non-combustible, non-corrosive gases including Air, Argon, CO_2 Helium and Nitrogen

Gas Pressure
Maximum 150 psig (10 barg)

Mass Flow Rate
Standard flow rates shown below. Lower and higer flow rates are available upon request. Ranges change with other gases (contact factory).

NPT Size	Mass Flow Rate for Air			
	Flow Range (scfm)		Flow Range (slpm)	
	Minimum	Maximum	Minimum	Maximum
1/4 inch	0 to 0.02	0 to 7	0 to 0.5	0 to 200
1/2 inch	0 to 1	0 to 12	0 to 34	0 to 340
3/4 inch	0 to 2.5	0 to 25	0 to 70	0 to 708
1.25 inch	0 to 5	0 to 50	0 to 142	0 to 1415

Pressure Drop
Negligible

Gas & Ambient Temperature
Gas . . . . . 15° to 176°F (-10° to 80°C)
Ambient . . . . . 32° to 120°F (0° to 50°C)

Leak Integrity
1 X 10^{-2} atm cc/sec of helium maximum

Power Requirements
15 to 18 VDC or 24 VDC, 300 mA

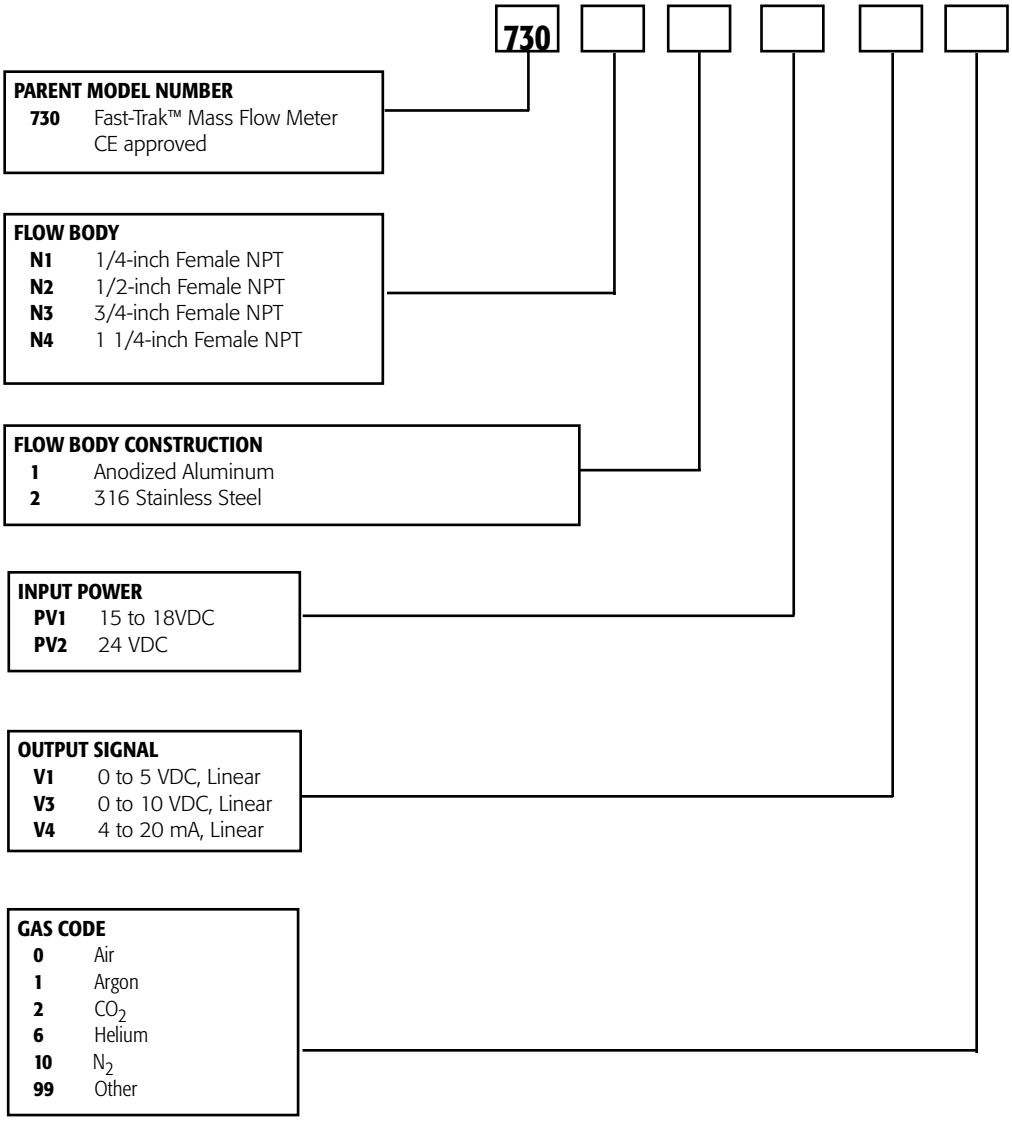
Output Signal (choice of one)
Linear 0 to 5 VDC or 0 to 10 VDC proportional to mass flow rate,
1000 ohms minimum load resistance; or
Linear 4 to 20 mA proportional to mass flow rate,
400 ohms maximum loop resistance

Physical Specifications

Wetted Material
316 stainless steel or anodized aluminum; glass-coated sensor; epoxy; Viton® "O"-rings

Enclosure
Anodized aluminum NEMA 2

Ordering the Model 730



Sierra Instruments, North America • 5 Harris Court, Building L • Monterey, California • (800) 866-0200 • (831) 373-0200 • Fax (831) 373-4402 • www.sierrainstruments.com
Sierra Instruments, Europe • Bijlmansweid 2 • 1934RE Egmond aan den Hoef • The Netherlands • +31 72 5071400 • Fax: +31 72 5071401
Sierra Instruments, Asia • Rm.618,Tomson Centre, Bldg. A • 188 Zhang Yang Road • Pu Dong New District • Shanghai, P.R. China 200122 • +8621 5879 8521/22 • Fax: +8621 5879 8586