VersaMassTer®

Thermal Mass Flow Meter

- **» Wide Flow Ranges**
- **» Vibrant Color Display**
- **» Through-the-Window Control**

Introducing...

Vision at Delta M Corporation has led to the release of the VersaMassTer® thermal mass flowmeter! Using our patented RATIO-THERMIC® technology, the meter measures the slightest fluctuation of gas flow in your process line. The VersaMassTer® is the result of input from end-users working in a variety of industrial applications, and each one is constructed to the same exacting standards and high quality that you and so many professionals have come to expect from Delta M switches.

Theory of Operation...

Based on the same physical changes that enable your body to sense wind-chill, the VersaMassTer's sensor uses its ultra-stable platinum RTDs to precisely measure the amount of mass flowing through a process line. Our real-time microprocessor based electronics constantly outputs mass flow, temperature and totalized flow. Any changes in the physical flow are measured directly, making your operation more repeatable, reliable and ready!

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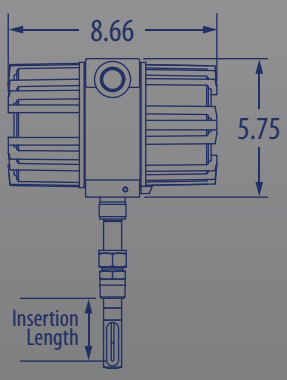
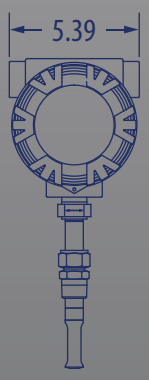
REPEATABLE. RELIABLE. READY.





Specifications

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Air Mass Flow Rate Range		
Pipe Size (in)	Maximum Range	
	SCFM	Nm^3/h
2	300	500
6	2,500	4,400
8	4,400	7,500
10	7,000	11,900
12	10,050	17,100
18	19,900	33,800
24	35,700	60,700

Instrument

Accuracy:
±1% of rate

Repeatability:
±0.25% of full scale

Time Response:
0.5 to 30 seconds

Temperature Effect:
0.1% per degree C within ±10°C

Instrumental Enclosure:
Double sided non explosion proof (STD)
Double sided NEMA 4X(optional)

Electronics

Input Power:
90 - 264 VAC or 18-36 VDC MAX

Operating Temperature Range:
14° to 140° F (-10° to 60° C)

Outputs:
Analog: dual 4 to 20 mA, isolated with external loop power
Digital: RS485
Switched: SPDT Relay
Pulse Output: 0 - 1 kHz

Communications:
Through-the-window 4 button IR key pad for field configuration
Modbus RTU or Modbus ASCII protocol via RS485 to host communication system

Code - Model
VM7GNX - VersaMassTer® Gas Mass Flow Meter - Non Explosion Proof

Code - Process Connection
CF - 0.75" Compression Fitting (316L SS)(std)
SP - Spool Piece
SPL - Special

Code - Wetted Parts Material
S6 - 316 L Stainless Steel tube with Hastelloy C Twin Tips (std)
HC - Hastelloy C
SM - Special Material

Code - Mounting Insertion Length
02.0 - 2" (std)
00.0 - 2" to 48" in 0.5" Increments
00.0 - Spool Piece (Contact Factory)

Code - Power Input
DC - 18-36 VDC (std)
AC - 110 - 240 VAC (90 - 264 VAC)

Code - Configuration
LE - Local Electronics (Integral) (std)
RE - Remote Electronics (25ft cable std)

Code - Display Options
DS - Display with keypad (std)

Code - Communication Options
MB - Comprehensive Mod Bus - RS-485 (std)

Code - Sensor Orientation (w/ respect to display)
D - Sensor Down (std)
L - Sensor Left
U - Sensor Up
R - Sensor Right

Code - Flow Orientation (w/ respect to display)
1 - Flow Counter-Clockwise (std)
2 - Flow Clockwise
3 - Flow in (Away)
4 - Flow Out (Towards)

Code - Calibration
CB - Standard Calibration in Air (std)

Code - Special Options
00 - No Special Options (std)
4x - Optional NEMA 4x Enclosure
CA## - Special RE Cable Length (## in feet)
CC - Ceramic Coat
EN# - Extended Neck (# in inches)
HT - High Temperature to 650° F (350° C)*
LT - Live Tap Option
MT - Medium Temperature 480° F (250° C)*
TG - Stainless Steel Tag
SPL - Special Option

VM7GNX - CF - S6 - 02.0 - DC - LE - DS - MB - D1 - CB - 00 * MT and HT special options require EN and RE

Features & Benefits

- No moving parts - no mechanical failures
- Direct mass flow - no secondary measurements
- Low pressure drop - small sensor cross-section
- Wide flow range - includes low flow
- All welded sensor construction - rugged and durable

Display Features

- EASY TO READ 2.8" TFT color
- Constant Data Update - Latest and most current data
- Selectable Variables - mass flow, total flow, temperature
- IR Interface Keypad - Through-the-window control

Sensor

Physical Design:
Rugged Shroud Design
Fully Penetrated welds for long life
Wide variety of alloy materials

Temperature Rating:
Standard: To 300 °F (150 °C)
Optional:
Medium: To 480 °F (250 °C)
High: To 650 °F (350 °C)