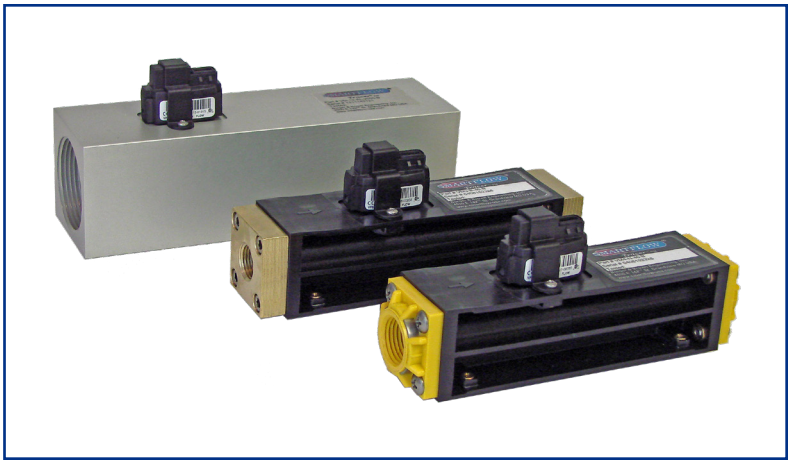
SMARTFLOW®

TRACER®$_{VM}$ BASE FLOWMETERS



General Description

The **Tracer$_{VM}$ Base Flowmeter** is a non-display sensor that provides a 0.5 to 3.5V output for process flow rate (0.5 to 4.1V for 1-18 LPM model) and a 0.5 to 4.1V output for process temperature.

Vortex sensor technology is highly accurate and repeatable without moving parts. Flow reading is direction specific. Refer to the arrow on the body for correct installation.

Connection to the process is made using standard pipe threads in NPT or BSP from 3/8" through 1-1/2". Flow body materials are corrosion-resistant brass, nylon, anodized aluminum and stainless steel. Options are based on thread size, see page 2 for details.

The flowmeter is designed for use in industrial water applications such as injection mold cooling or filter and pump monitoring.

Benefits

- No moving parts for reliable operation
- Flow and Temperature Sensors in one unit for compact installation
- Quick temperature response from direct media contact
- Economical and versatile construction with corrosion-resistant materials

Specifications

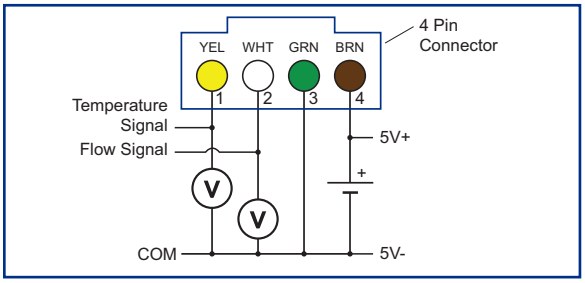
	Flow Range	Size
1 to 18 LPM	(.3 to 4.8 GPM)	3/8" or 1/2"
2 to 40 LPM	(.5 to 10.6 GPM)	3/8" or 1/2"
5 to 100 LPM	(1.3 to 26.4 GPM)	3/4" or 1"
10 to 200 LPM	(2.6 to 52.8 GPM)	1" or 1-1/2"

Flow Accuracy ..... ±1.5% of Full Scale
Temperature Range..... 0°C to 120°C (32°F to 248°F)
Temperature Accuracy ..... ±0.5°C
Operating Pressure ..... 10.3 bar max. (150 psi max.)

Power

Power Required..... 5VDC ±5% (not included)
Output Signals..... Ratiometric
Flow Signal..... 0.5 - 3.5V (0.5 - 4.1V for 1-18 LPM) 0.35V output at zero flow
Temperature Signal ..... 0.5 - 4.1V
Power Consumption ..... <50mW
Load Impedance..... >10kW

Electrical Connections



Pin	Description	Color
1	Temperature Signal*	Yellow
2	Flow Signal*	White
3	Common (0V)	Green
4	Power Supply (+5VDC)	Brown
*relative to Pin 3		

Materials

Sensing Element.. Silicone-Based MEMS Sensor
Seal (sensor to housing) ..... EPDM
Insert ..... PPA 40 GF
3/8" & 1/2" Body Size..... Glass-Filled Nylon Flow Body with Brass or Nylon End Caps
3/4" thru 1-1/2" Body Size ..... Anodized Aluminum or Stainless Steel Flow Body
Cable ..... 2.9M (9.5ft) 4-conductor for power and output, ends stripped

Power Supply Requirements

- 5VDC
- Separated from hazardous live circuitry by double or reinforced insulation
- Suggested current limit: 50-100mA

Design and specifications are subject to change without notice.

Burger & Brown ENGINEERING
4500 E 142nd Street
Grandview, MO 64030 USA
Tel: 816-878-6675
www.smartflow-usa.com

SMARTFLOW® Tracer®VM Base Flowmeters

Model Number

VM	3	-	B	-	18H	- B -	P1Q

Body Size

3/8"NPT	3
3/8"BSPP	3B
1/2"NPT	4
1/2"BSPP	4B
3/4"NPT	6
3/4"BSPP	6B
1"NPT	8
1"BSPP	8B
1-1/2"NPT	12
1-1/2"BSPP	12B

Body Material

Glass-Filled Nylon with Brass End Caps	B
Nylon End Caps (3/8" and 1/2" only)	N
Anodized Aluminum Body	AL
Stainless Steel Body (3/4" and larger only)	SS

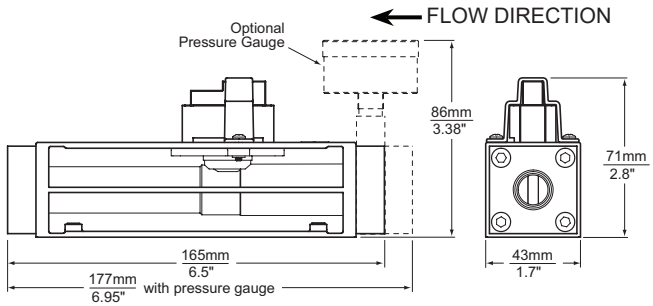
Flow Range

B or N	18H: 1 to 18 LPM (.3 to 4.8 GPM)
B or N	40H: 2 to 40 LPM (.5 to 10.6 GPM)
AL or SS	100H: 5 to 100 LPM (1.3 to 26.4 GPM)
AL or SS	100H: 5 to 100 LPM
AL or SS	200H: 10 to 200 LPM
AL or SS	200H: 10 to 200 LPM (2.6 to 52.8 GPM)

Options

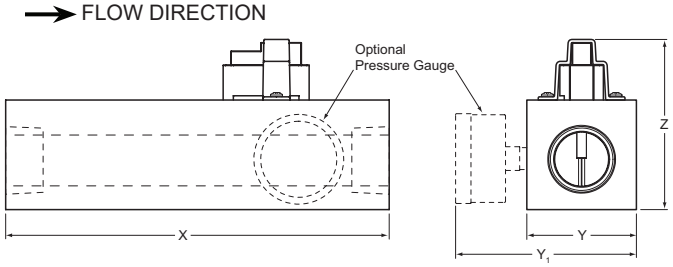
P1	30 psi Pressure Gauge
P2	60 psi Pressure Gauge
P3	100 psi Pressure Gauge
P4	160 psi Pressure Gauge (Pressure gauges not available with AL body material)
Q	Delta-Q® Precision Flow Regulator (use with VM3 or VM4 only)

3/8" or 1/2" Body Sizes (Nylon or Brass End Caps)



3/4" thru 1-1/2" Body Sizes

Aluminum or Stainless Steel
(pressure gauge not available with AL body)



Dimensions (mm/inches)				
Body Size	**X**	**Y**	**Y_1**	**Z**
3/4", 5 to 100 LPM	178/7.0	45.7/1.8	77/3.1	74/2.9
1", 5 to 100 LPM	178/7.0	45.7/1.8	77/3.1	74/2.9
1", 10 to 200 LPM	178/7.0	51/2.0	84/3.3	79/3.1
1-1/2", 10 to 200 LPM	198/7.8	58/2.3	90/3.6	86/3.4

When using with RJG eDart IA-2 module

Add line item:
Part no. CONN-LBG-4-F
Description: 4-pin Connector added to cable

Directives

Flow sensors are in conformity with these Council directives on the approximation of the laws of the EC member states:

- Low Voltage Directive (2006/95/ED)
  Standards used: EN 61010-1:2001
- EMC Directive (2004/108/EC)
  Standards used: EN 61326-1:2006 and 61326-2-3:2006

Smartflow flow sensors fall under Article 3, 3 of PED Directive 97/23/EEC and are not required to be CE-marked according to this directive.

Burger & Brown Engineering, Inc.
4500 E 142nd Street ◆ Grandview, MO 64030 USA
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www.smartflow-usa.com