

A2 Differential Pressure Gauge

Range: 30 Pa-30KPa Accuracy: $\pm 2.5\%$ FS



Features

- Magnet-helix indicating mechanism ideal for low DP measurement
- A wide selection of ranges from 0Pa to 30Pa at up to 30KPa
- Accuracy 2% of FS
- Inertia-free, drift-free pointer indication
- OEM solutions available

Indicating Mechanism

When pressure is applied to both sides of the diaphragm in operation, any difference in pressure causes the diaphragm, the spring that the diaphragm is linked to, and the magnet attached to the spring to move. The movement of the magnet forces the magnetic helix to turn in order to maintain the gap, and the pointer fixed to the helix turns with it.

Applications

The series A2 DP gauges are designed to measure positive, negative, or differential pressure of low air and non-corrosive gases with a full span accuracy of 2% at a competitive price. They are widely used for filter condition checks, HVAC control, and the measurement of fan and blower pressures, air velocity, and pressure drop across orifice plates applications, as well as other applications in the pharmaceutical and semiconductor manufacturing industry.

Specifications

Service: Air and non-combustible, compatible gases

Ranges: See Range Selection Chart

Accuracy: $\pm 2\%$ of full span at 21°C ($\pm 3\%$ on A2-0.50IN, A2/Z-0.5IN, A2-10MM, A2-100Pa, A2-125Pa and $\pm 4\%$ on A2-0.25IN, A2-6MM, A2-60Pa ranges)

Ambient Temperature: -7 ~ 60°C

Pressure Limit: -68 ~ 100KPa

Overpressure: Relief plug opens at approximately 15Psig (100KPa)

Process Connections: 1/8" female NPT duplicate high and low pressure taps: one pair side and one pair back

Case and Bezel Material: Die cast aluminum

Weight: 460g

Dial Size: 4" Diameter

Mounting Position: Vertical

Standard Accessories: Two 1/8" NPT plugs for duplicate pressure taps, two 1/8" pipe thread to rubber tubing adapter, and three flush mounting adapters with screws



301-Air filter kit

A3 Digital DP Switch/Gauge/Transmitter

Output Signal: 4-20mA, 2-wire Power

Features

- Excellent for differential, negative, gauge, and absolute pressure measurement
- Glass-filled nylon housing with a polycarbonate face cover
- Can be used in rough and exposure applications
- Over-pressure protection



Specifications

Media Compatibility: Differential pressure: Air and non-corrosive gases

Gauge pressure/Absolute pressure: non-corrosive gases/liquid

Accuracy: 0.5% of full span (including Linearity, Hysteresis and Repeatability)

Output Signal: 4-20mA, 2-wire

Power Supply: 120VDC, 220VDC; 50/60Hz

Electrical Rating of Switch: 10A@120VAC, 6A@240VAC, 60Hz

Electrical Connections: Screw terminals

Process Connections: Differential Pressure: Barbed connections

Gauge pressure/ Absolute pressure: M20x1.5

Material: ABS housing; Brass or 316SS process connections

Damping: 1-30s adjustable

Operating temperature: -10~50°C

Range Turn Down: 3:1

Set Point Adjustment: Reset buttons on face

Size: 4" (101.60mm) dial face

Order Information

Model No.	DP Range (Pa)	Model No.	DP Range (KPa)	Model No.	DP Range (KPa)
A3-60Pa	0~60	A3-1KPa	0~1	A3-7KPa	0~7
A3-125Pa	0~125	A3-1.5KPa	0~1.5	A3-35KPa.	0~35
A3-250Pa	0~250	A3-2KPa	0~2	A3-100KPa.	0~100
A3-500Pa	0~500	A3-3KPa	0~3	A3-200KPa	0~200
A3-750Pa	0~750	A3-5KPa	0~5	A3-700KPa	0~700
A3/Z-250Pa	125~0~125	A3-8KPa	0~8	Model No.	DP Range (MPa)
A3/Z-500Pa	500~0~500	A3-10KPa	0~10		
Model No.	DP Range (KPa)	A3-15KPa	0~15	A3-2.1MPa	0~2.1
		A3-20KPa	0~20	A3-3.5MPa	0~3.5
A3-35KPa	0~35	A3-25KPa	0~25	A3-7MPa	0~7
A3-100KPa	0~100	A3-30KPa	0~30	A3-21MPa	0~21
A3-200KPa	0~200	A3/Z-1KPa	0.5~0~0.5	A3-35MPa	0~35
A3-700KPa	0~700	A3/Z-3KPa	1.5~0~1.5	A3-42MPa	0~42

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A4 Differential Pressure Transmitter

Stability: +/- 0.25% FS/year Output Signal: 4-20 mA, 2-wire

Introduction

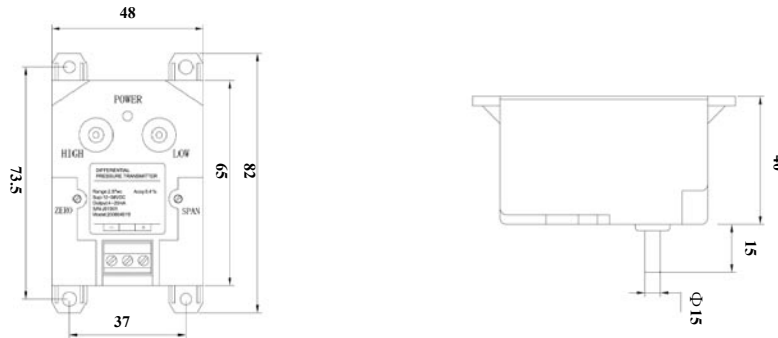
The Series A4 Differential Pressure Transmitter can accurately measure positive, negative, or differential pressure. The Series A4 is not position sensitive and can be mounted in any orientation without compromising accuracy. The compact, lightweight design makes installation simple and easy.



Specifications

Maximum Pressure: Ranges \leq 5 PSI—Max 15 PSI Ranges $>$ 5 PSI—Max 30 PSI
Media compatibility: Air and compatible non combustible, non corrosive gasses
Accuracy: Ranges \leq 4" w.c. 1.0% Ranges \geq 5" w.c. 0.5% or 0.25%
Temperature Ranges: Compensated: 15° to 120°F (-10°C to 50°C) Operating: -10° to 155°F (-25°C to 70°C)
Thermal Effect: \pm 0.028% FS/°F
Stability: \pm 0.25% FS/year
Output Signal: 4–20 mA, 2-wire
Loop Resistance: 250 Ω @ 24 VDC
Power Supply: 12–30 VDC
Housing Material: ABS Plastic
Electrical Connections: screw terminals
Process Connection: Push on connection for 1/8" I.D. tubing

Dimensional Outline Drawings



Order Information

Model No.	DP Range (Pa)	Model No.	DP Range (Pa)	Model No.	DP Range (Pa)
A4-125Pa	0~125Pa	A4-1KPa	0~1KPa	A4/Z-1KPa	0~1KPa
A4-250Pa	0~250Pa	A4-2.5KPa	0~2.5KPa	A4/Z-2.5KPa	0~2.5KPa
A4-500Pa	0~500Pa	A4-7KPa	0~7KPa	A4/Z-100KPa	0~100KPa
A4/Z-120Pa	\pm 60Pa	A4-35KPa	0~35KPa	A4/Z-200KPa	0~200KPa
A4/Z-250Pa	\pm 125Pa	A4-100KPa	0~100KPa		
A4/Z-500Pa	\pm 250Pa	A4-200KPa	0~200KPa		

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A5 Differential Pressure Gauge

Dimensions: 2-29/32"(73.81mm) × 2-7/16"(61.93mm)



Features

- Small size, low cost and satisfactory accuracy
- Glass-filled nylon housing with a polycarbonate face cover
- Can be used in rough and exposure applications
- Over-pressure protection

Specifications

Media: Air and compatible non-corrosive gases

Housing: Glass-filled nylon, polycarbonate

Accuracy: ± 5% of full scale at 70 °F(21.1°C)

Rated Total Pressure: 50psig (3.455bar) surge; 30 psig (2.067bar) continuous to either pressure connection

Dimensions: 2-29/32"(73.81mm) × 2-7/16"(61.93mm)

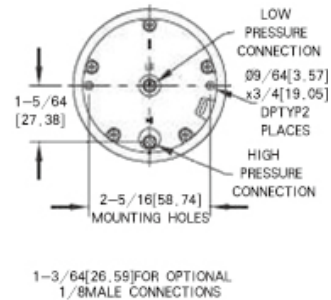
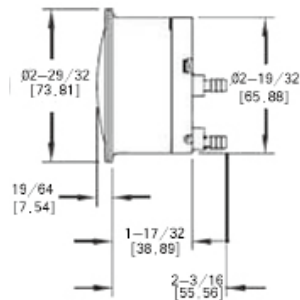
Ambient Temperature Range: 20°F to 120°F(-6.7°C to 49°C)

Mounting: Vertical, consult the factory for other positions

Process Connections: standard, barbed for 3/16" I.D. tubing

Weight: 170.1gr. [6 oz]

Dimensional Outline Drawings



Order Information

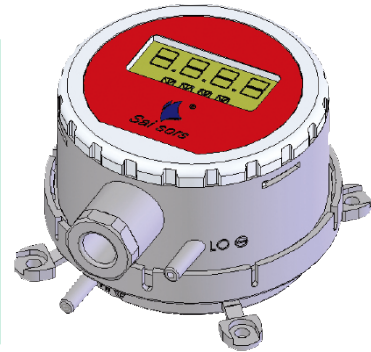
Model No.	DP Range(in. w.c)	Model No.	DP Range(PSI)	Model No.	DP Range(mm w.c)
A5000-0	0~0.5	A5205	0~5	A5000-25MM	0~25
A5001	0~1.0	A5210	0~10	A5000-50MM	0~50
A5002	0~2.0	A5215	0~15	A5000-100MM	0~100
A5003	0~3.0	A5230	0~30	Model No.	DP Range(Pa)
A5005	0~5.0			A5000-125Pa	0~125
A5010	0~10			A5000-250Pa	0~250
A5020	0~20			A5000-500Pa	0~500
A5040	0~40			Model No.	DP Range(KPa)
A5060	0~60			A5000-1KPa	0~1KPa
A5100	0~100			A5000-3KPa	0~3KPa

A6 Multi-Range Differential Pressure Transmitter

Range: 0- 25Pa (min.), 0-1.25KPa(max.)

Features

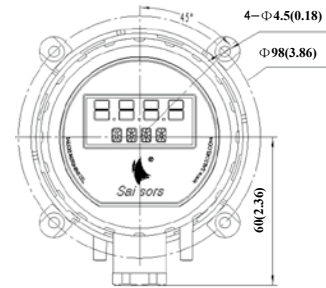
- Magneto-resistive Effect technology
- Ranges from 0~25Pa at up to 3KPa
- Three selectable ranges for each model
- Insensitive to media, compared to transmitters using a piezoresistive silicon or capacitance sensor
- Excellent stability
- Available with Unidirectional and bidirectional ranges, and air velocity
- Optional LCD display



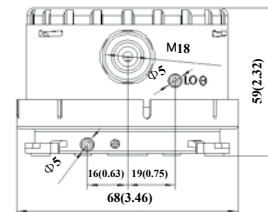
Specifications

Service: Air and non-combustible gases, compatible gases
Accuracy: ± 1.0% F.S. (0.1" w.c. & 25Pa: ± 2.0%)
Range: 0- 25Pa (min.), 0-1.25KPa(max.)
Thermal effects: Zero/span shift 0.05% F.S. /°C
Pressure limits: 1psi max. operation; 10psi burst.
Power supply: 10-35 VDC (2-wire); 17-36 VDC or isolated 15-26 VAC (3-wire).
Output signal: 4-20mA(2-wire), 0-5V(3-wire);0-10V(3-wire)
Response time: 0.5-15s adjustable.
Work temperature: -10 to 50°C
Loop resistance: Current output: 0-1250 Ω max.; Voltage output: 1000 Ω min. load
Housing material: ABS plastic.
Display (optional): 2-line, 4-digit LCD.
Stability: ± 1 %F.S./YR.
Accessory: Cable gland for 4-7.5mm diameter cable
Process connections: 3/16" (5mm) ID tubing; max. OD 9mm.
Enclosure rating: IP65.
Mounting orientation: Vertical.

Dimensional Outline Drawings



Dimensions(mm)



Order Information

Model No.					
A6 Multi-Range Differential Pressure Transmitter					
DP	Unidirectional Ranges				
	<table border="0"> <tr> <td>1 25Pa, 50Pa, 125Pa</td> <td>2 250Pa, 500Pa, 1250Pa</td> </tr> <tr> <td>3 750Pa, 1500Pa, 2KPa</td> <td>4 1KPa, 2KPa, 3KPa</td> </tr> </table>	1 25Pa, 50Pa, 125Pa	2 250Pa, 500Pa, 1250Pa	3 750Pa, 1500Pa, 2KPa	4 1KPa, 2KPa, 3KPa
1 25Pa, 50Pa, 125Pa	2 250Pa, 500Pa, 1250Pa				
3 750Pa, 1500Pa, 2KPa	4 1KPa, 2KPa, 3KPa				
TP	Bidirectional Ranges				
	1 ±25Pa, ±50Pa, ±100Pa				
Output	A1 4-20mA(2-wire)				
	V1 0-10V(3-wire)				
	V2 0-5V(3-wire)				
Accessories	M1 LCD S1 196mm static pressure probe				
A6	DP1	TP1	A1	S1	← Example

B0501 WET/WET Differential Pressure Transmitter

complete 316 SS structure, accuracy 0.25%, 7MPa static pressure

Pressure Transmitter



- ◆ 316 double diaphragm sensor
- ◆ High accuracy: 0.25%, turn down 5:1
- ◆ High static operating pressure up to 7 MPa, 2x F.S. overpressure either side
- ◆ Low cost & fast delivery

B0501 WET/WET DP transmitter is the low cost, high reliability option in the Sailors family of WET/WET DP transmitters. The B0501 utilizes a double diaphragm sensor technology that allows the product to operate at much higher static pressures than double sensor products and also at a higher accuracy. When operating at high static pressures, it is recommended to use the Sailors 3-way manifold valve so pressure can be slowly increased on both the low and high pressure ports simultaneously. This will ensure accurate and reliable operation. If field adjustment is required, the B0501 can be turned down 5:1 with the built in potentiometer.

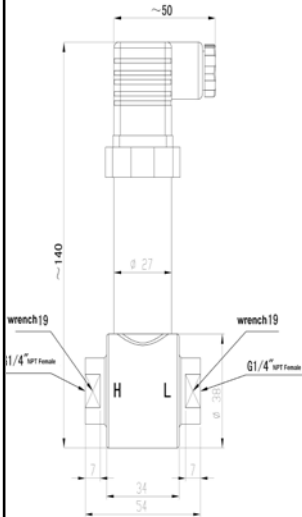
Application

Heating and cooling pump control; pressure vessel level measuring; filter monitoring and water flow monitoring

Specifications

Service:	Compatible gas and liquid with 316SS
Range:	Min. 0~7KPa, Max. 0~3.5MPa
Over pressure:	Positive: 2times of F.S; negative :1 time of /F.S
Static pressure:	≤7MPa
Accuracy:	0.25% (linearity /repeatability/hysteresis total)
Tem. drift:	0.05% °C (Z+S)
Working Tem.:	-40~85°C
Compensation Tem.:	-20~70°C
Process connection:	1/4 NPT, female
Response time:	100 ms
Output:	4~20 mA, 2-wire
Turn down:	5:1
Damp:	1~30s adjustable
Power supply:	12~36V DC
Mounting position effect:	0.1%FS, can be corrected by zero adjust potentiometer
IP protection:	IP65
Life time:	1×10 ⁶ pressure circulation
Long term stability	0.5%/F.S/Y.

Dimensions (mm)



Model chart

Code	Range
BO501DP01	0~7~35KPa
BO501DP02	0~15~70KPa
BO501DP03	0~20~100KPa
BO501DP04	0~40~200KPa
BO501DP05	0~70~350KPa
BO501DP06	0~100~700KPa
BO501DP07	0~0.2~1MPa
BO501DP08	0~0.4~2MPa
BO501DP09	0~0.7~3.5MPa

Note: If there is no user-defined range, BO501DP will be calibrated to upper range limit when out of the factory; when there is user-defined range, the calibrated range and unit should be written behind the model, for example, BO501DP06(0~30PSI).

TF121 Multi-range Air Velocity Transmitter

316 S S armoured RTD sensor, simultaneous output and display of air velocity/temperature/pressure

Velocity Transmitter



- ◆ Field adjustable range from 0-1 m/s to 0-20 m/s
- ◆ Stainless steel sensor/sensor support/housing
- ◆ Optional static pressure sensor with user selectable range
- ◆ Standard 3% accuracy, or optional 1%
- ◆ 4-20 mA output or optional MODBUS
- ◆ Standard LCD
- ◆ Integral or remote mounting configurations

Sailors is taking the lead in Air Velocity Transmitters by using an industrial 316 SS armoured RTD sensor as the thermal air velocity measuring component. This extends the lifetime of the transmitter and also makes it insensitive to water, dust, or corrosion. The TF121 comes standard with an LCD and will simultaneously display and output both air velocity and temperature. The TF121 is also available with optional pressure sensing and when equipped, pressure will also be output and displayed simultaneously with air velocity and temperature.

In addition to measuring air velocity, temperature, and pressure, the TF121 can also totalize volume flow in m³/h or CFM. The measuring range for air velocity, temperature, and pressure can all be easily changed by the user through the keypad on the display. Other adjustable parameters include response time and low velocity cut off point.

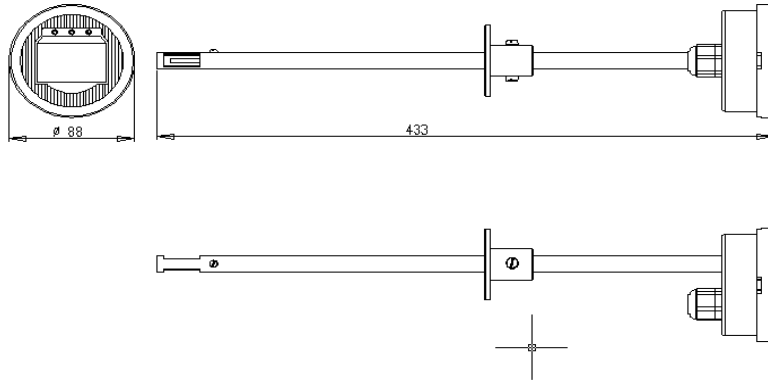
Application

Velocity measurement of air conditioning system, filter monitoring, fan monitoring and exhaust tracking; ventilated case and gas receiver measuring; clean room and clean bench surface velocity measuring and inlet and outlet air flow draught energy management

Specifications

Range:	Velocity: Min. 0~1m/s, Max. 0~20m/s
	Pressure:Min. 0~25pa, Max.0~50KPa
	Temperature:-10~50℃ and -20~125℃ optional
Output:	Two 4-20mA outputs: one for velocity, one for temperature
	Three 4-20mA outputs: one for velocity,one for temperature and one for pressure
Accuracy:	Air velocity: 3% F.S. and 1% F.S. optional
	Pressure:1%F.S.
	Temperature: 1 °C
Power supply:	24VDC ± 20%
Response time:	Ceramic sensor:50s; metal sensor: 2s
Damp :	3s~30s, adjustable
IP protection:	IP65
Power supply:	12~36V DC
Material:	Sensor:316SS or ceramic
	Housing: 304SS
	Sensor support: 316SS
Working pressure:	100KPA
Sensor dimension:	14 mm outer diameter, legnth:200MM~1000MM optional
Connection:	Removable flange with mounting sealing bushing. When fission mounting is selected, the transmitter is configurated with mounting bracket, and Hirschmann connector between sensor and transmitter, cable should be provided by user.

Dimensions (mm)



Model chart

Series code				
TF121 multi-range air velocity transmitter				
Probe				
T1 ceramic		T2 stainless steel		
Range				
Velocity:	F1: 0~5m/s	F2: 0~10m/s	F3: 0~15m/s	F4: 0~20m/s
Temperature:	T1: -10~50°C		T2: -20~125°C	
Pressure:	P0: without pressure sensor	P1: 0~250Pa	P2: 0~500Pa	
	P3: 0~1KPa	P4: 2KPa	P5: 3 KPa	
Outputs				
M1: two or three 4~20mA outputs		M2: MODBUS		
Optional accuracy(velocity)				
A1: 3%		A2: 1%		
Sensor support length				
L1: 200MM	L2: 400MM	L3: 600MM	L4: 800MM	L5: 1000MM
Mounting				
B1: Integral		B2: Remote		
Model select example				
TF121 T1 F1 T1 M2 A1 L3 B1				

TF122 Industrial Thermal Air Velocity Transmitter

multi-range design, simultaneous output and display of air velocity/temperature/pressure, IP65 protection

Velocity Transmitter



- ◆ Field adjustable range from 0~1 m/s to 0~20 m/s
- ◆ Stainless steel sensor/sensor support/housing
- ◆ Standard 3% accuracy, or optional 1%
- ◆ 4-20 mA output or optional MODBUS
- ◆ Standard LCD
- ◆ Integral or remote mounting configurations
- ◆ IP65 protection

Sailors is taking the lead in Air Velocity Transmitters by using an industrial 316 SS armored RTD sensor as the thermal air velocity measuring component. This extends the lifetime of the transmitter and also makes it insensitive to water, dust, or corrosion. The TF122 comes standard with an LCD and will simultaneously display and output both air velocity and temperature, and the range can be changed by key-press in field. The TF122 is also available with optional pressure sensing and when equipped, pressure will also be output and displayed simultaneously with air velocity and temperature.

In addition to measuring air velocity, temperature, and pressure, the TF122 can also totalize volume flow in m³/h or ft³/min. The measuring range for air velocity, temperature, and pressure can all be easily changed by the user through the keypad on the display. Other adjustable parameters include response time and low velocity cut off point.

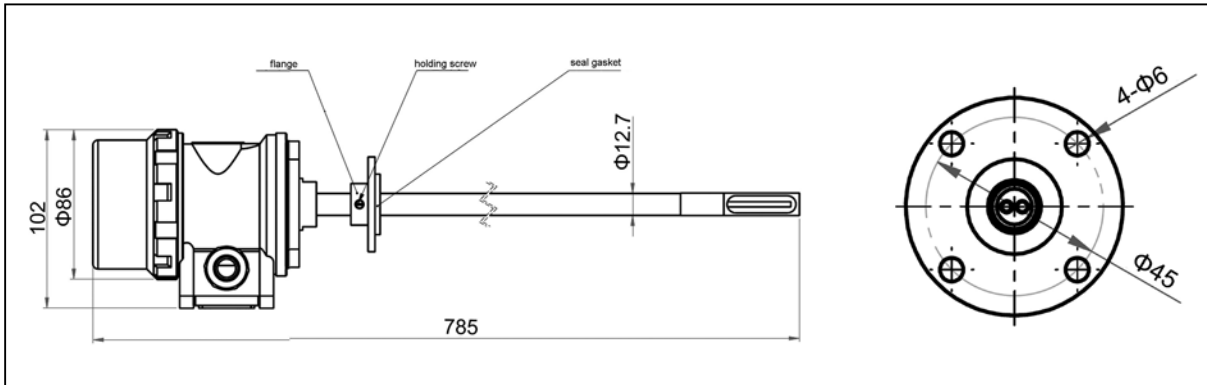
Application

Velocity measurement of air conditioning system, filter monitoring, fan monitoring and exhaust tracking; ventilated case and gas receiver measuring; clean room and clean bench surface velocity measuring and inlet and outlet air flow draught energy management

Specifications

Range:	Velocity: Min. 0~1m/s, Max. 0~20m/s
	Pressure: Min. 0~500pa, Max. 0~10KPa
	Temperature: -20~85°C and -20~125°C optional
Output:	Two 4-20mA outputs: one for velocity, one for temperature
Accuracy:	Air velocity: 3% F.S. and 1% F.S. optional
	Temperature: 1 °C
Power supply:	24VDC ± 20%
Response time:	3s
Damp :	3s~30s, adjustable
IP protection:	IP65
Material:	Sensor: 316SS
	Housing: 304SS
	Probe : 304SS
Working pressure:	50KPA
Sensor dimension:	14 mm outer diameter, length: 200MM~1000MM optional
Connection:	Removable flange with mounting sealing bushing. When fission mounting is selected, the transmitter is configured with mounting bracket, and Hirschmann connector between sensor and transmitter, cable should be provided by user.

Dimensions (mm)



Model chart

Series code					
TF122 industrial thermal air velocity transmitter					
Sensor					
T1 ceramic		T2 stainless steel			
Range					
Velocity:	F1: 0~10m/s	F2: 0~20m/s	F3: 0~30m/s	F4: 0~40m/s	
Temperature:	T1: -20~85°C		T2: -20~125°C		
Optional accuracy(velocity)					
A1: 3%		A2: 1%			
Probe length					
L1:200MM	L2: 400MM	L3:600MM	L4:800MM	L5:1000MM	L0: other()mm
Mounting					
B1: Integral		B2: Remote			
Outputs					
M1: 4~20mA		M2: MODBUS			
Model select example					
TF122	T1	F1	T1	A1	L1 B1 M1

VF01 Electronic Balometer

Air velocity:0.2-7.6m/s (0.65-25f/s)



Features

- View measurements easily on the large LCD display
- Store up to 100 readings in its nonvolatile memory for later analysis
- Automatic sensing and display of flow rate, flow velocity and temperature
- Accuracy of 3% full scale
- Direct printing and data transfer via RS232C port

Specifications

Volume flow rate: 85~3400M³/h (50-2000cfm)

Air velocity:0.2~7.6m/s (0.65-25f/s)

Temperature range:-10~80℃ (14-176 F)

Supply volume flow rate: ±(3% f reading ± 12m³/h)

Exhaust volume flow rate: ±(4% f reading ± 12m³/h)

Temperature Accuracy: ±(0.5 reading)0.5

Temperature resolution:0.1℃ (F)

Volume flow resolution: 0.1m³/h

Power Requirements: Three AA batteries (included)

Battery Life: 10~30 hrs. minimum with continuous use.

Display: 128×64 matrix LCD.

Output: RS232C

Weight: 4kg (with the hood of 610mm×610mm)



Display Interface

```
Vel: 7.2 m/s
Vol: 1234.5m3/h
Tem: 28.8 ℃
```

```
*****Browse*****
P8
Temp: 28.8 ℃
Volu: 333.3 m3/h
```

```
*****Seting*****
Set SaveTime
Set Calibr
Set Power
```

```
*****Calibr*****
V: 0084 m3/h
NO.0
8540572
```

Model Chart

1. Standard Models

VF01C(Widespread type)	VF01B(Standard type)	VF01A(Trace to source type)
Accuracy: 3%, with 610m m×610mm Hood and nylon kitbag	Based on VF01C, RS232C interface and upper monitor software are added	Based on VF01B, calibration certificate from the third part are added

2. Options

When the standard hood and bracket can not satisfy the air inlet dimension, the optional hoods and bracket are available below:

610mm×220mm Model Code: CH2

305mm×220mm Model Code: CH3

user-defined size: others



Standard 610mm×610mm hood, and base can be put into a 800mm×800mm nylon kitbag