

Air Velocity Sensor



Energy &
Atmosphere



Indoor
Environmental
Quality



QVM62.1 Air Velocity Sensor.

Description

This sensor is used to control the air velocity to a constant value, balance out pressure fluctuations (supply or exhaust air control), or to monitor the flow in air ducts. It is designed with a thin film sensing element and its unique, sleek housing guarantees product recognition. This unit is compatible with all Siemens systems and controllers.

Features

- Mounting flange allows the installer to vary the probe insertion length into the duct space for best control
- Mounting flange dampening gasket minimizes vibration
- Graduated probe ensures maximum flow accuracy
- Flow directional arrow provides for the most accurate reading
- Connection cable provides mounting flexibility
- Three jumper selectable flow measuring ranges accommodate any application or environment
- Field selectable output (4-20 mA or 0-10V)

Applications

This sensor is primarily used to set the basic volumetric flow rate for modulating fan control.

E-43

Sensors

QVM62.1 Sensor Specifications

Power Supply

Operating Voltage.....	24 Vac +/- 20%
Frequency	50/60 Hz
Power Consumption	≤ 5 VA (maximum 200 mA)
Output Impedance.....	<20 ohm

Measuring Data

Measuring Ranges, Adjustable.....	0 to 16 ft/s (0 to 5 m/s) 0 to 33 ft/s (0 to 10 m/s) (factory setting) 0 to 49 ft/s (0 to 15 m/s)
Measuring Accuracy at 68°F (20°C), 45% rh,	± 0.7 ft/s 1013 hPa (0.2 m/s + 3% of measured value)
Permissible Air Velocity	66 ft/s (20 m/s)
Direction Dependence.....	< 0.3% of measured value at ≤ + 10°
Time Constant t_{90} at 10 m/s.....	4 seconds

Signal Output U1

Voltage	4-20 mA or 0 to 10 Vdc
Current	± 1 mA

Line Length

Permissible Length to Controller at:

20 AWG Copper Cable.....	164 ft (50 m)
18 AWG Copper Cable.....	492 ft (150 m)
16 AWG Copper Cable.....	984 ft (300 m)
Line Length to the Sensor Head	3 ft (1 m) (prewired)

Connections

Mechanical	Screw Connection
Electric.....	Screw Terminal, Maximum 2 x 18 AWG

Degree of Protection

Degree of Protection Provided by Enclosures as per EN 60 529

Transducer	IP 42
Sensor head	IP 20
Degree of protection as per EN 60 730.....	III

Climatic Conditions

Temperature	23°F to 113°F (-5°C to 45°C)
Humidity (non-condensing)	<95% rh
Mechanical Conditions	Class 3M2
Chemical Conditions	Class 3C2

Storage (Transducer and Immersion Stem)

Temperature	23°F to 113°F (-5°C to 45°C)
Humidity (Non-condensing).....	<95% rh
Mechanical Conditions	Class 1M2

Weight with Packaging12 oz (0.352 kg)

E-44

QVM62.1 Sensor Product Ordering

Application	Description	Part No.
Air Velocity Sensor	0 to 3000 FPM	QVM62.1

Sensors

Accessories & Service Kits

E-51