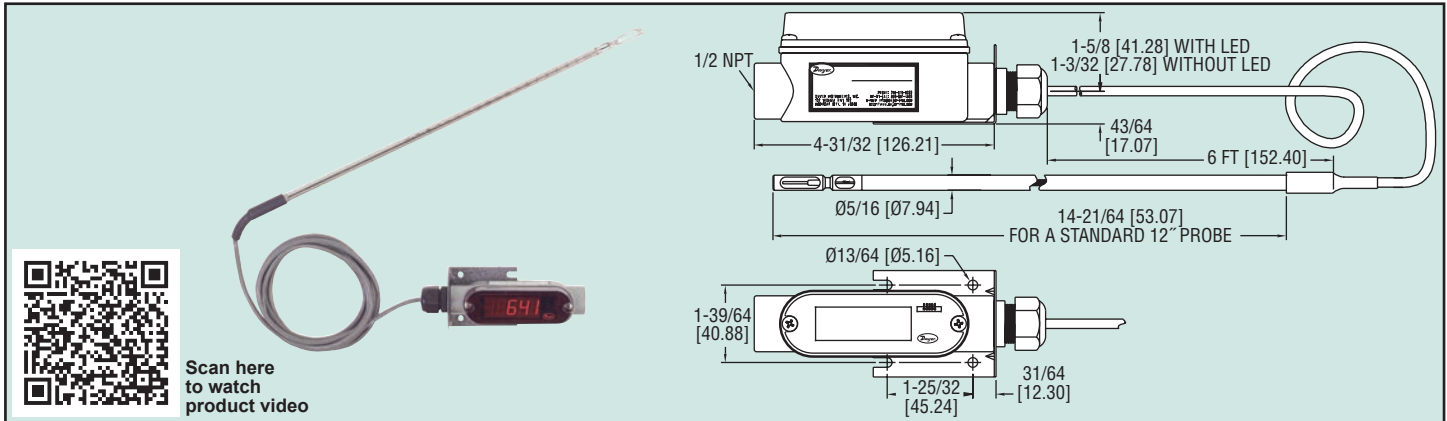




Series  
641RM

# Air Velocity Transmitter with Cable

## For Remotely Mounting Electronic Enclosure



Scan here to watch product video

The Series 641RM is the ideal instrument for monitoring air flow. This transmitter uses a heated mass flow sensor, which allows for precise velocity measurements at various flow rates and temperatures. The 641RM's 16 field-selectable ranges from 0-250 to 15,000 FPM (0-1.25 to 75 MPS) provide it the versatility to be selected for a multitude of applications. The unit's 6' cable which connects the sensing probe with the electronic enclosure allows the enclosure to be mounted where it can be more easily accessed. Longer cable lengths are available for ducts that are at very high elevations from the plant floor. The optional LED produces a complete, compact solution for local indication of air flow.

**Model 641RM-12**, Air Velocity Transmitter with 6' cable  
**Model 641RM-12-LED**, same as above with LED display

#### ACCESSORIES

**A-156**, Universal Mounting Plate, 1/2" female NPT  
**A-158**, Split Flange Mounting Kit  
**A-159**, Duct Mounting Gland  
**641-LED**, Field-upgradeable LED

#### OPTION

For NIST traceable calibration certificate, add suffix -NIST to model numbers. Example: 641RM-12-NIST.

#### SPECIFICATIONS

**Service:** Clean air and compatible, non-combustible gases.  
**Accuracy:** 3% FS process gas: 32 to 122°F (0 to 50°C); 4% FS process gas: -40 to 32°F & 122 to 212°F (-40 to 0°C & 50 to 100°C).  
**Response Time:** Flow: 1.5 seconds to 95% of final value (output filter set to minimum).  
**Temperature Limits:** Process: -40 to 212°F (-40 to 100°C); Ambient: 32 to 140°F (0 to 60°C).  
**Pressure Limit:** 100 psi (6.89 bar) maximum.  
**Humidity Limit:** Non-condensing.  
**Power Requirements:** 12 to 35 VDC, 10 to 16 VAC. 1.5A rating required on supply due to initial power surge drawn by transmitter.  
**Output Signal:** 4 to 20 mA, isolated 24V source, 3 or 4-wire connection.

**Output Filter:** Selectable 0.5–15 (seconds).  
**Loop Resistance:** 600 Ω max.  
**Current Consumption:** 300 mA max.  
**Electrical Connections:** Screw terminal.  
**Mounting Orientation:** Unit not position sensitive. Probe must be aligned with airflow.  
**Weight:** 13.2 oz (374.26 g).  
**Cable Length:** 6 ft (1.82 m).  
**Probe Length:** 12" (30.48 cm) standard.  
**Probe Diameter:** 5/16" (0.79 cm).

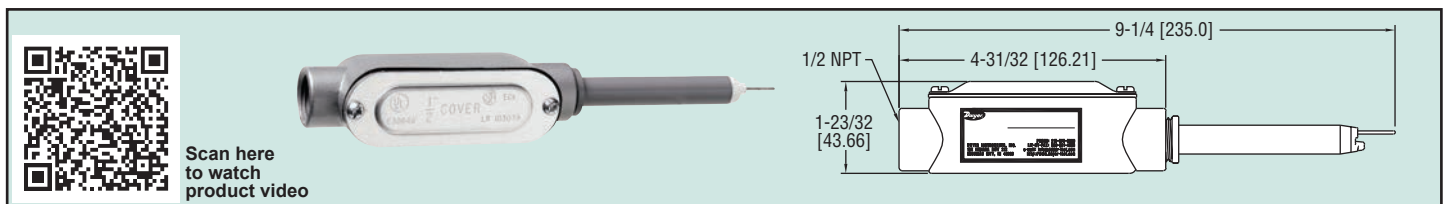
**OPTIONAL DISPLAY VERSION:**  
**Display:** 4-1/2 digit 1/2" red LED.  
**Resolution:** 1 FPM, 0.01 MPS (10 FPM @ 10,000 and 15,000 FPM ranges).  
**Weight:** 13.9 oz (394.16 g).



Series  
641B

# Air Velocity Transmitter

## 8 Field Selectable Ranges in FPM or MPS



Scan here to watch product video

The Series 641B Air Velocity Transmitter uses a heated mass flow sensor technology. It has 4 user-selectable ranges from 250 FPM to 2000 FPM with corresponding metric ranges of 1.25 MPS to 10 MPS. The 641B provides an isolated 4 to 20 mA output proportional to the velocity. The Series 641B's steel sensor allows the unit to be used in dirty air environments. This rugged sensor is ideally suited for quick field cleaning from a simple cloth to a pulse of air from an air source. Proper sensor performance can be maintained in these polluted environments by easily removing dust and debris from the sensor which is problematic for pitot tubes and other flow sensing transmitters.

**Model 641B-4**, Air Velocity Transmitter  
**Model 641B-4-LED**, same as above with LED display

#### ACCESSORIES

**A-156**, Flange Mounting Plate with 1/2" female NPT  
**A-155**, Mounting Gland with 1/2" male NPT fitting

\*A brief current transient exceeding 300 mA may be seen on startup

#### SPECIFICATIONS

**Service:** Air and compatible, non-combustible gases.  
**Accuracy:** 5% FS process gas: 32 to 122°F (0 to 50°C). 6% FS process gas: -40 to 32°F & 122 to 176°F (-40 to 0°C & 50 to 80°C).  
**Response Time:** Flow: 1.5 seconds to 95% of final value (output filter set to minimum).  
**Temperature Limits:** Process: -40 to 176°F (-40 to 80°C). Ambient: 32 to 140°F (0 to 60°C).  
**Humidity Limit:** Non-condensing.  
**Power Requirements:** 12 to 35 VDC, 10 to 16 VAC. 1.5A rating required on supply due to initial power surge drawn by transmitter.

**Output Signal:** 4 to 20 mA, isolated 24V source, 3- or 4-wire connection.  
**Output Filter:** Selectable 0.5–15 (seconds).  
**Loop Resistance:** 600 ohms max.  
**Current Consumption:** 300 mA max\*.  
**Electrical Connections:** Screw terminal.  
**Enclosure Rating:** Designed to meet NEMA 4X (IP66).  
**Mounting Orientation:** Unit not position sensitive.  
**Weight:** 12.6 oz (357.2 g).

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