



Series  
641

# Air Velocity Transmitter

## 16 Field Selectable Ranges in FPM or MPS



AIR QUALITY

Air Velocity Transmitters

B DIMENSION  
A DIMENSION

3-1/4  
[82.55]

13/16  
[20.64]

4-29/64  
[113.11]

1/2-14 NPT

1/2 NPT

B DIMENSION  
A DIMENSION

2-23/32  
[29.06]

25/32  
[19.84]

4-29/64  
[113.11]

1/2-14 NPT

1/2 NPT

641 AVT with Display Option	
A Dimension	B Dimension
7-63/64 [202.80]	9-13/16 [249.24]
13-63/64 [355.20]	15-13/16 [401.64]
19-63/64 [507.60]	21-13/16 [554.04]
26-63/64 [685.40]	28-13/16 [731.84]
32-63/64 [837.80]	34-13/16 [884.24]
37-63/64 [964.80]	39-13/16 [1011.24]
641 AVT without Display Option	
A Dimension	B Dimension
7-7/16 [188.91]	9-9/32 [235.74]
13-7/16 [341.31]	15-9/32 [388.14]
19-7/16 [493.71]	21-9/32 [540.54]
26-7/16 [671.51]	28-9/32 [718.34]
29-7/16 [747.71]	34-9/32 [870.74]
37-7/16 [950.91]	39-9/32 [997.74]

The new Series 641 Air Velocity Transmitter 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 641's 16 field-selectable ranges provides it the versatility to be selected for several air flow applications. The optional LED produces a complete, low-cost solution for local indication of air flow.

### FEATURES

- Ranges to 15,000 FPM or 75 MPS
- Optional bright LED display
- Easy push button set-up
- Compact housing
- 4 to 20 mA output
- Digital filter for signal damping

### APPLICATIONS

- Exhaust stack flow monitoring
- Air control in drying processes
- HVAC air velocity measurements
- Fan supply and exhaust tracking

Model	Probe Length*
641-6	6" (152.4 mm)
641-6-LED	6" (152.4 mm)
641-12	12" (304.8 mm)
641-12-LED	12" (304.8 mm)
641-18	18" (457.2 mm)
641-18-LED	18" (457.2 mm)
641-24	24" (609.6 mm)
641-24-LED	24" (609.6 mm)

\*Other probe lengths available contact factory.

### OPTION

For NIST traceable calibration certificate, add suffix -NIST to model numbers. Example: 641-6-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.

**Process Connections:** 1/2" male NPT.

**Enclosure Rating:** Designed to meet NEMA 4X (IP66) for non LED models only.

**Mounting Orientation:** Unit not position sensitive. Probe must be aligned with airflow.

**Weight:** 12.6 oz (357.2 g).

**Agency Approval:** CE.

### 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:** 13.3 oz (377 g).

### 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