

## SERIES 477AV | HANDHELD DIGITAL MANOMETER

### FEATURES/BENEFITS

- Calculates and displays air velocity and volumetric air flow
- Rugged aluminum case protects instrument from damage during transport/use
- 9 selectable English and metric engineering units
- Large, easy to read display with backlight for use in dark areas
- Stores up to 40 readings with minimum, maximum, and average statistics
- Convenient all-in-one air velocity kit option available

### APPLICATIONS

- Air flow monitoring, when used with a Dwyer® pitot tube
- Duct static pressure
- Commercial air balancing
- Building-zone pressure

### DESCRIPTION

The **SERIES 477AV** Handheld Digital Manometer is now available with pressure, flow, and velocity measurements along with a number of other convenient features. The built-in air velocity and flow calculations provide accuracy and conserve time and error associated with manual calculations. Also featured on this unit are adjustable zero and span values for calibrating in the field as well as a damping feature to compensate for the fluctuating of readings.

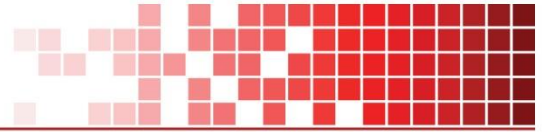
**Air velocity kits** include: Series 477AV handheld digital manometer, Model 166T 36" telescoping pitot tube, (2) A-303 static pressure tips, (2) 4-1/2' lengths 3/16" ID rubber tubing, A-397 step drill for 3/16" to 1/2" holes, A-532 AV slide chart, and fitted polyethylene case.



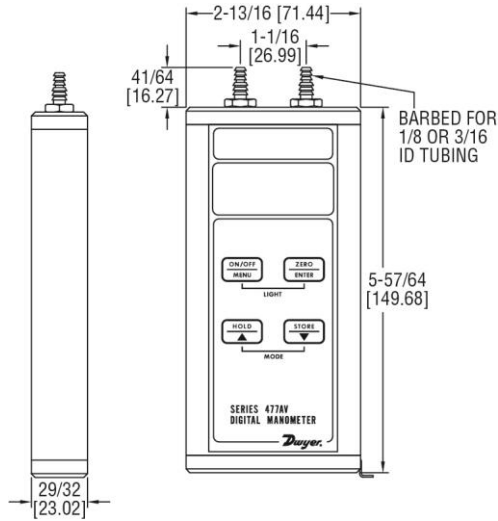
### SPECIFICATIONS

<b>Service</b>	Air and compatible gases.
<b>Wetted Materials</b>	Consult factory.
<b>Accuracy</b>	±0.5% FS from 60 to 78 °F (15.6 to 25.6 °C); ±1.5% FS from 32 to 60 °F and 78 to 104 °F (0 to 15.6 °C and 25.6 to 40 °C).
<b>Pressure Hysteresis</b>	±0.1% FS.
<b>Pressure Limits</b>	See chart on page 2.
<b>Temperature Limits</b>	0 to 140 °F (-17.8 to 60 °C).
<b>Compensated Temperature Limits</b>	32 to 104 °F (0 to 40 °C).
<b>Storage Temperature Limits</b>	-4 to 176 °F (-20 to 80 °C).
<b>Display</b>	0.42" (10.6 mm) 4 digit LCD.
<b>Resolution</b>	See chart on page 2.
<b>Units of Pressure</b>	in w.c., ft w.c., in Hg, psi, oz/in <sup>2</sup> , mm w.c., cm w.c., mm Hg, mbar, Pa, kPa, hPa.
<b>Units of Velocity</b>	fpm, fps, mph, m/h, m/s, k/h, knot.
<b>Units of Flow</b>	cfm, m <sup>3</sup> /h, m <sup>3</sup> /s.
<b>Power Requirements</b>	9 V alkaline battery, installed non-functional, user replaceable.
<b>Weight</b>	10.2 oz (289 g).
<b>Process Connections</b>	Two barbed connections for use with 1/8" (3.18 mm) or 3/16" (4.76 mm) ID tubing. Two compression fittings for use with 1/8" (3.18 mm) ID x 1/4" (6.35 mm) OD tubing for 477AV-7, -8 only.
<b>Agency Approvals</b>	CE.





## DIMENSIONS



## MAXIMUM PRESSURE / RESOLUTION

Pressure Range	Max Pressure	Resolution
0 to 1 in w.c.	5 psig	0.001
0 to 4 in w.c.	5 psig	0.001
0 to 10 in w.c.	5 psig	0.01
0 to 20 in w.c.	10 psig	0.01
0 to 40 in w.c.	10 psig	0.01
0 to 200 in w.c.	30 psig	0.1
0 to 10 psi	30 psig	0.01
0 to 20 psi	60 psig	0.01
0 to 30 psi	60 psig	0.01
0 to 100 psi	150 psig	0.1
0 to 150 psi	200 psig	0.1

## HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code

### MANOMETER

**477AV**   **-4**   **-NIST**

#### SERIES

**477AV** - Handheld digital manometer

#### RANGE

- 000 - 1 in w.c. / 0.25 kPa    **-4** - 10 psi / 70 kPa
- 00 - 4 in w.c. / 1 kPa        **-5** - 20 psi / 140 kPa
- 0 - 10 in w.c. / 2.5 kPa      **-6** - 30 psi / 200 kPa
- 1 - 20 in w.c. / 5 kPa        **-7** - 100 psi / 700 kPa
- 2 - 40 in w.c. / 10 kPa      **-8** - 150 psi / 1000 kPa
- 3 - 200 in w.c. / 50 kPa

#### OPTIONS

- COC** - Certificate of calibration
- FC** - Factory calibration
- NIST** - NIST traceable calibration certificate

### AIR VELOCITY KIT

**477**   **-0T**   **-AV**

#### SERIES

**477** - Handheld digital manometer

#### RANGE

- 000T - 1 in w.c. / 0.25 kPa
- 00T - 4 in w.c. / 1 kPa
- 0T - 10 in w.c. / 2.5 kPa
- 1T - 20 in w.c. / 5 kPa

#### OPTIONS

- AV** - Air velocity kit

## ACCESSORIES

Model	Description	Model	Description
<b>A-402A</b>	Tough gray nylon carrying case	<b>160F</b>	Straight stainless steel pitot tube, 18" (45.7 cm)
<b>A-47X-B00T</b>	Protective magnetic rubber boot	<b>160G</b>	Averaging air flow grid
<b>160-12</b>	Stainless steel pitot tube, 12" (30.5 cm)	<b>UHH-C1</b>	Soft carrying case

Important Notice: Dwyer Instruments, Inc. reserves the right to make changes to or discontinue any product or service identified in this publication without notice. Dwyer advises its customers to obtain the latest version of the relevant information to verify, before placing any orders, that the information being relied upon is current.

