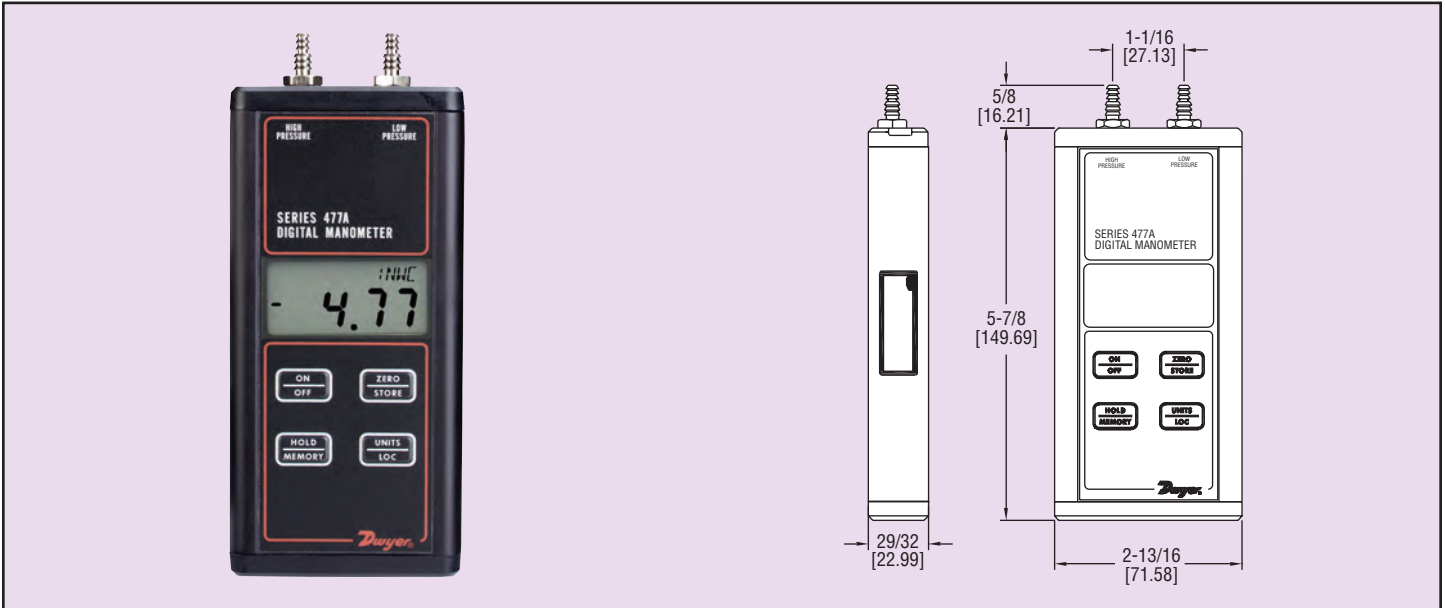




Series
477A

Handheld Digital Manometer

Precise Air Pressure Measurement, $\pm 0.1\%$ F.S. Accuracy



The Popular Model 477 is now available with 0.1% full-scale accuracy in the new Series 477A. The 477A contains a highly accurate differential pressure sensor that offers a 0.1% full-scale accuracy on air ranges from 20 in w.c. to 100 psid. Series 477A Handheld Digital Manometers are packed with features needed to make pressure measurement and recording faster, easier and more accurate than ever. Instantly select from up to nine of the most widely used pressure units without having to waste time and risk mistakes with tedious conversions. A non-volatile memory function enables storage of up to 40 readings – perfect for HVAC technicians making Pitot tube traverses of airflow readings across a duct. The 477A is also ideal for maintenance personnel or technicians that require a highly accurate standard to check their instrumentation or equipment to ensure proper performance. When working in poorly lighted areas, just switch on the handy backlight feature. The manometer automatically shuts itself off after 20 minutes to minimize battery drain. Electronic zeroing means you simply touch a single key to perfectly null out any minor pressure differences. A display HOLD key freezes the current pressure for those all-too-common situations where readings fluctuate. Included is an audible alarm to warn of overpressure plus a visual alarm warning in case ambient noise levels are too high to hear the alarm. Audible alarm also confirms a value has been stored, eliminating the need to observe display during a duct traverse. Clear, concise operating instructions for all functions are printed on the rear of the rugged extruded aluminum case for quick reference. One-piece front membrane fully protects all keys from dust and moisture; wipes clean in seconds. Detailed written instructions, a wrist strap and 9 V alkaline battery are included.

FEATURES

- Measure positive, negative, or differential pressures
- Instant selection from up to nine english/metric units
- Stores 40 readings in memory for later reference
- Both audible and visual overpressure alarms
- Operates up to 100 hours on a single 9 volt battery
- New adjustable damping feature for averaging fluctuating reading

See page 567 for process tubing options.

SPECIFICATIONS

- Service:** Air and non-combustible compatible gases.
- Wetted Parts:** Consult factory.
- Accuracy:** $\pm 0.10\%$ of full-scale from 60 to 78°F (15.6 to 25.6°C); $\pm 1\%$ of full scale from 32 to 60 and 78 to 104°F (0-15.6 and 25.6-40°C).
- Pressure Hysteresis:** $\pm 0.1\%$ of full-scale.
- Pressure Limits:** See chart.
- Temperature Limits:** 32 to 104°F (0 to 40°C).
- Storage Temperature Limits:** -4 to 176°F (-20 to 80°C).
- Display:** 0.42" (10.6 mm) 4 digit LCD.
- Resolution:** See chart.
- Power Requirements:** 9 V alkaline battery, installed non-functional, user replaceable.
- Weight:** 10.2 oz. (289 g).
- Connections:** Two barbed connections for use with 1/8" (3.18 mm) or 3/16" (4.76 mm) ID tubing for 477A-1, 477A-2, 477A-3, 477A-4 and 477A-5 only. Two compression fittings for use with 1/8" (3.18 mm) ID x 1/4" (6.35 mm) OD tubing for 477A-6 and 477A-7 only.

ACCESSORIES

A-402A CARRYING CASE — Tough gray nylon pouch protects any Series 477A Manometer. Double zippered for quick and easy access. With belt loop that snaps closed.

7-1/2"H x 3"W x 2-1/4"D (191 x 76 x 57 mm)

UHH-C1, Soft carrying case



OPTION

For NIST traceable calibration certificate, add suffix -NIST to model numbers. Example: 477A-1-NIST.

Model	Range	Available Pressure Units										Maximum Pressure
		bar	psi	in Hg	kPa	in w.c.	mm Hg	mbar	FTWC	mm w.c.	Pa	
477A-1	0-20.00 in w.c.	.0498	.7225	1.471	4.982	20.00	37.36	49.82	1.667	508.0	4982	3 psig
477A-2	0-40.00 in w.c.	.0996	1.445	2.942	9.96	40.00	74.73	99.6	3.333	1016	9964	3 psig
477A-3	0-200.0 in w.c.	.4982	7.225	14.71	49.82	200.0	373.6	498.2	16.67	5080		15 psig
477A-4	0-10.00 psi	.6895	10.00	20.36	68.95	276.8	517.1	689.5	23.07	7031		30 psig
477A-5	0-30.00 psi	2.069	30.00	61.08	206.9	830.4	1551	2069	69.20			60 psig
477A-6	0-50.00 psi	3.447	50.00	101.8	344.7	1384	2585	3447	115.3			100 psig
477A-7	0-100.0 psi	6.895	100.0	203.6	689.5	2768	5171	6895	230.7			200 psig



Series
476A
&
478A

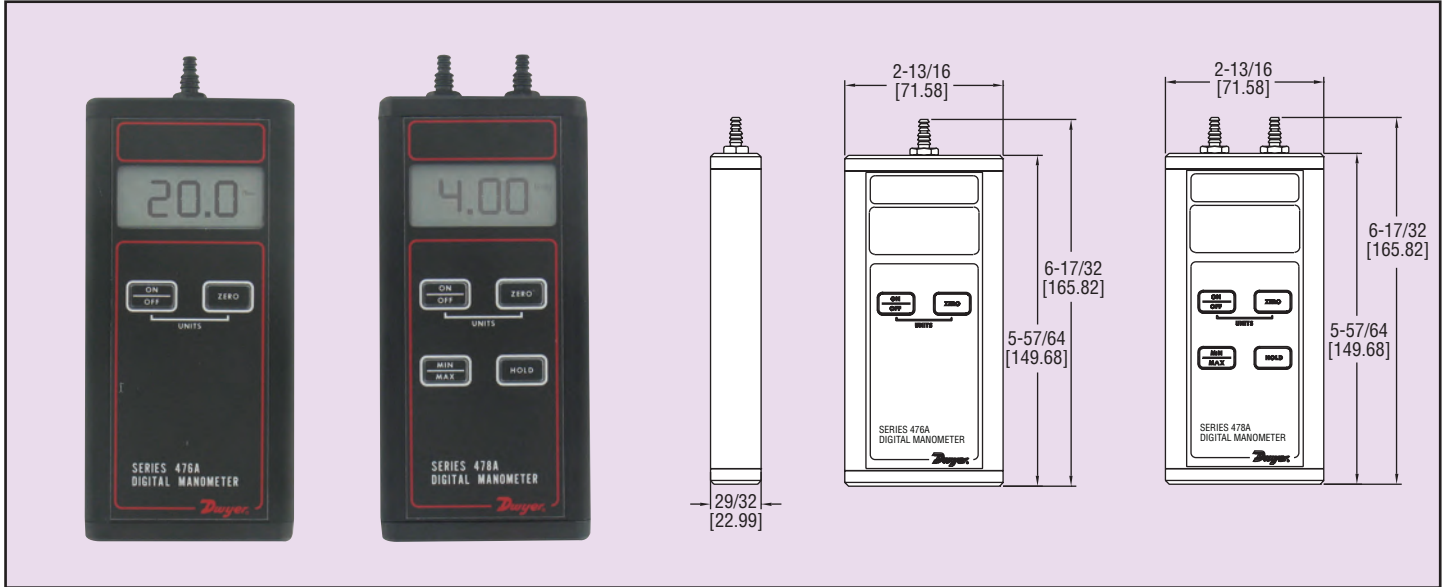
Series 476A Single Pressure Digital Manometer & Series 478A Digital Manometer

Electronic Zeroing, $\pm 1.5\%$ Accuracy



TEST EQUIPMENT

Manometers,
Portable



Ideal for field or laboratory use, the Model 476A Single Pressure Digital Manometer measures low pressures from -20 to 20 in w.c. with $\pm 1.5\%$ full scale accuracy. Designed especially for the HVAC contractor, the Model 476A can be used to set supply pressures, verify pressure switch operation, adjust regulators, check pneumatic systems and computer peripherals. The rugged, handheld unit is constructed with an extruded aluminum case for exceptional durability. The Series 478A manometer can be used to measure positive, negative, or differential pressures. The unit features selectable units, auto zero, hold and a Min/Max function. Press the Hold key to freeze the current pressure measurement on the display. The 478A manometer includes a zeroing button to null out any minor pressure differences.

FEATURES

- One-button auto-zero function
- Auto power off.
- Large, easy-to-read display.
- Extruded aluminum case.
- Instant selection from up to eight english/metric units.

Model 476A-0, Digital Manometer, -20 to 20 in w.c.

Model 478A-0, Digital Differential Manometer, -4-0-4 in w.c.

Model 478A-1, Digital Differential Manometer, -60-0-60 in w.c.

OPTION

For NIST traceable calibration certificate, add suffix -NIST to model numbers. Example: 478A-1-NIST.

SPECIFICATIONS

Service: Air and compatible gases.

Wetted Materials: Consult factory.

Accuracy: $\pm 1.5\%$ FS at 72°F (22.2°C). Includes linearity and repeatability.

Pressure Hysteresis: $\pm 0.1\%$ of FS.

Pressure Limits: 5 psig (.74 bar).

Temperature Limits: 0 to 140°F (-17.8 to 60°C).

Compensated Temperature Limits: 32 to 104°F (0 to 40°C).

Thermal Effect: 0.05% FS/°F.

Display: 4 digit LCD (.425"H x .234"W digits).

Power Requirements: 9 V alkaline battery, installed non-functional, user replaceable.

Process Connections: For use with 3/16" or 1/4" ID tubing.

Weight: 10.8 oz (306 g).

Agency Approvals: CE.

ACCESSORIES

A-402A CARRYING CASE — Tough gray nylon pouch protects any Series 476A/478A Manometer. Double zippered for quick and easy access. With belt loop that snaps closed.

7-1/2"H x 3"W x 2-1/4"D (191 x 76 x 57 mm)

UHH-C1, Soft carrying case

See page 567 for process tubing options.



Model	Range in w.c.	Available Pressure Units								Resolution in w.c.	Maximum Pressure
		bar	psi	in Hg	kPa	in w.c.	mm Hg	mbar	mm w.c.		
476A-0	-20.0 to 20.0	.0498	0.723	1.471	4.98	20.00	37.4	49.8	508	0.02	5 psig

Model	Range in w.c.	Available Pressure Units									Resolution in w.c.	Maximum Pressure
		bar	psi	in Hg	kPa	in w.c.	mm Hg	mbar	mm w.c.	Pa		
478A-0	-4.00 to 4.00	.1445	.294	0.996	4.00	7.47	9.96	101.6	996	0.01	5 psig	
478A-1	-60.0 to 60.0	.1495	2.168	4.41	14.95	60.0	112.1	149.5	1524	0.1	5 psig	