

TECHNICAL DATA

Fluke Calibration P3000 Pneumatic Deadweight Testers



Key features

- 0.015% of reading accuracy standard (0.008% optional)
- 1-30 inHg vacuum (0.03-1 bar vacuum)
- 3-500 psi (0.2-35 bar) pressure
- inH₂O and mbar ranges available
- Series 3 non-magnetic stainless steel weights
- Units can be trimmed to local gravity FOC

Product overview: Fluke Calibration P3000 Pneumatic Deadweight Testers

This versatile instrument provides calibrations from 1-30 inHg vacuum (0.03-1 bar) and 3-500 psi (0.2-35 bar) in one extremely accurate yet easy to use primary standard. A selector valve converts the unit from pressure to vacuum mode without the need to exchange pistons. Units are manufactured to the highest standards with certified accuracies traceable to International Standards Laboratories such as the National Institute of Standards and Technology (NIST). These piston/cylinder type pneumatic standards provide excellent stability, repeatability and accuracy. An optional built-in hand pump can be added for both pressure and vacuum generation.

Specifications: Fluke Calibration P3000 Pneumatic Deadweight Testers

| Accuracy | | |
|---|--|-------------------|
| Accuracy ¹ | ±0.015% of reading (±0.008% optional) | |
| 1. Accuracy based on % of reading from 10% to 100% of the piston range when used in accordance with the corrections found on the calibration certificate. Below 10% ± (accuracy class) x 10% of the piston range. | | |
| Mass and PCU Materials of Construction | | |
| Standard weight material | Series 3 non-magnetic austenitic stainless steel | |
| Weight density | 7.8 g/cm ³ | |
| Optional fractional weights | Solution heat treated aluminum | |
| Weight density | 2.7 g/cm ³ | |
| Models P3011, P3012, P3013, P3022, P3023, P3025 (V) | Piston material | Ceramic |
| | Cylinder material | Martensitic steel |
| | Coefficient of expansion | 11 ppm/°C |
| Models P3014, P3015, P3025 (P) P3031, P3032 (P & V) | Piston material | Tungsten carbide |
| | Cylinder material | Martensitic steel |
| | Coefficient of expansion | 16.5 ppm/°C |
| Model P3016 | Piston material | Tungsten carbide |
| | Cylinder Material | Tungsten carbide |
| | Coefficient of Expansion | 11 ppm/°C |
| General | | |
| Test port adaptors | 1/8, 1/4, 3/8 and ½ NPT or BSP | |
| Instrument weight | 24 lbs | |
| Instrument size (W x D x H) | 17.5 x 12 x 8.5 | |
| Mass set weight (typical) | 65 lbs | |
| Minimum Standard Weight Increments | | |
| P3012, P3022 Pressure | 1 inH ₂ O, (5 mbar) | |
| P3013, P3023 Pressure | 2 inH ₂ O, (10 mbar) | |
| P3014, P3015, P3025 Pressure | 1 psi, (0.1 bar) | |
| P3016, P3031, P3032 | 1 psi, (0.1 bar) | |
| P3011, P3022, P3023, P3025 Vacuum | 0.2 inHg (10 mbar) | |
| Optional Fractional Weights | | |
| P3014, P3015, P3025 Pressure | 0.1 psi (0.01 bar) | |
| Built-in Hand Pumps | | |
| Pressure mode | Max pressure 300 psi (20 bar) | |



| | |
|---|---|
| Vacuum mode | To 90% vacuum |
| Operating Fluid for Liquid Lubricated Models | |
| 55-655 | Mineral oil (standard) |
| Krytox | For oxygen-safe applications (optional) |
| Options | |
| PressCal Software | Windows-based software program that allows users to easily apply all necessary corrections to enhance the deadweight tester performance. Calibration details are then stored and/or used to automatically create a calibration certificate. PressCal is provided as standard with all 0.008% instruments. |
| Krytox | As operating fluid for liquid lubricated gas operated models. |

Ordering information



Fluke P3011-4-P

Fluke Calibration P3011-4-P Pneumatic Deadweight Testers
Vacuum range 3 to 100 kPa

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
- Vacuum operated – single PCU
- Built-in pump optional

Fluke P3011-6-P

Fluke Calibration P3011-6-P Pneumatic Deadweight Testers
Vacuum range 30 to 1,000 mbar

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
- Vacuum operated – single PCU
- Built-in pump optional

Fluke P3011-8-P

Fluke Calibration P3011-8-P Pneumatic Deadweight Testers
Vacuum range 1 to 30 inHg

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
- Vacuum operated – single PCU
- Built-in pump optional

Fluke P3011-9-P

Fluke Calibration P3011-9-P Pneumatic Deadweight Testers
Vacuum range 30 to 760 mmHg

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Vacuum operated – single PCU
 - Built-in pump optional
-

Fluke P3012-4-P

Fluke Calibration P3012-4-P Pneumatic Deadweight Testers
Pressure range 1.5 to 1000 kPa

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3012-6-P

Fluke Calibration P3012-6-P Pneumatic Deadweight Testers
Pressure range 15 to 1,000 mbar

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3012-7-P

Fluke Calibration P3012-7-P Pneumatic Deadweight Testers
Pressure range 400 inH₂O

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3013-4-P

Fluke Calibration P3013-4-P Pneumatic Deadweight Testers
Pressure range 3 to 200 kPa

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3013-6-P

Fluke Calibration P3013-6-P Pneumatic Deadweight Testers
Pressure range 30 to 2,000 mbar

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3013-7-P

Fluke Calibration P3013-7-P Pneumatic Deadweight Testers
Pressure range 12 to 800 inH₂O

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3014-1-P

Fluke Calibration P3014-1-P Pneumatic Deadweight Testers
Pressure range 0.2 to 10 bar

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3014-2-P

Fluke Calibration P3014-2-P Pneumatic Deadweight Testers
Pressure range 0.2 to 10 kgf/cm²

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3014-3-P

Fluke Calibration P3014-3-P Pneumatic Deadweight Testers
Pressure range 3 to 150 psi

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3014-4-P

Fluke Calibration P3014-4-P Pneumatic Deadweight Testers

Pressure range 20 to 1,000 kPa

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3014-5-P

Fluke Calibration P3014-5-P Pneumatic Deadweight Testers
Pressure range 0.02 to 1 MPa

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
-

Fluke P3015-1-P

Fluke Calibration P3015-1-P Pneumatic Deadweight Testers
Pressure range 0.2 to 35 bar

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
 - Built-in pump optional
-

Fluke P3015-2-P

Fluke Calibration P3015-2-P Pneumatic Deadweight Testers
Pressure range 0.2 to 35 kgf/cm²

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
 - Built-in pump optional
-

Fluke P3015-3-P

Fluke Calibration P3015-3-P Pneumatic Deadweight Testers
Pressure range 3 to 500 psi

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
 - Built-in pump optional
-

Fluke P3015-4-P

Fluke Calibration P3015-4-P Pneumatic Deadweight Testers

Pressure range 20 to 3,500 kPa

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
 - Built-in pump optional
-

Fluke P3015-5-P

Pressure range 0.02 to 3.5 MPa

Includes:

- P3000 Series Single Pressure Model
 - Air operated – single PCU
 - Built-in pump optional
-

Fluke P3022-4-P

Fluke Calibration P3022-4-P Pneumatic Deadweight Testers

Pressure range 1.5 to 100 kPa

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 3 to 100 kPa
 - Built-in pump optional
-

Fluke P3022-6-P

Fluke Calibration P3022-6-P Pneumatic Deadweight Testers

Pressure range 15 to 1,000 mbar

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 30 to 1,000 mbar
 - Built-in pump optional
-

Fluke P3022-7-P

Fluke Calibration P3022-7-P Pneumatic Deadweight Testers

Pressure range 5 to 400 inH₂O

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
- Air operated - dual PCU

- Vacuum Range 1 to 30 inHg
 - Built-in pump optional
-

Fluke P3023-4-P

Fluke Calibration P3023-4-P Pneumatic Deadweight Testers
Pressure range 3 to 200 kPa

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 3 to 100 kPa
 - Built-in pump optional
-

Fluke P3023-6-P

Fluke Calibration P3023-6-P Pneumatic Deadweight Testers
Pressure range 30 to 2,000 mbar

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 30 to 1,000 mbar
 - Built-in pump optional
-

Fluke P3023-7-P

Fluke Calibration P3023-7-P Pneumatic Deadweight Testers
Pressure range 12 to 800 inH₂O

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 1 to 30 inHg
 - Built-in pump optional
-

Fluke P3025-1-P

Fluke Calibration P3025-1-P Pneumatic Deadweight Testers
Pressure range 0.2 to 35 bar

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 30 to 1,000 mbar
 - Built-in pump optional
-

Fluke P3025-2-P

Fluke Calibration P3025-2-P Pneumatic Deadweight Testers
Pressure range 0.2 to 35 kgf/cm²

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 30 to 760 mmHg
 - Built-in pump optional
-

Fluke P3025-3-P

Fluke Calibration P3025-3-P Pneumatic Deadweight Testers
Pressure range 0.2 to 35 kgf/cm²

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 30 to 760 mmHg
 - Built-in pump optional
-

Fluke P3025-4-P

Fluke Calibration P3025-4-P Pneumatic Deadweight Testers
Pressure range 20 to 3,500 kPa

Includes

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 3 to 100 kPa
 - Built-in pump optional
-

Fluke P3025-5-P

Fluke Calibration P3025-5-P Pneumatic Deadweight Testers
Pressure range 0.02 to 3.5 MPa

Includes:

- P3000 Series Vacuum and Dual Vacuum/Pressure Model
 - Air operated - dual PCU
 - Vacuum Range 3 to 100 kPa
 - Built-in pump optional
-



Fluke. *Keeping your world up and running.®*

Fluke Corporation
PO Box 9090, Everett, WA 98206 U.S.A.

For more information call:
In the U.S.A. (800) 443-5853
In Canada (800) 36-FLUKE
From other countries +1 (425) 446-5500
www.fluke.com

©2022 Fluke Corporation.
Specifications subject to change without notice.
11/2022

**Modification of this document is not permitted
without written permission from Fluke Corporation.**