TECHNICAL DATA

Fluke Calibration P3200 Hydraulic Deadweight Tester

Key features

- Pressure ranges to 10,000 psi (700 bar)
- 0.015% of reading accuracy standard (0.008% optional)
- Single or dual piston formats
- Built-in hand pumps standard
- Mounted spirit level with adjustable feet
- Units can be trimmed to local gravity FOC

Product overview: Fluke Calibration P3200 Hydraulic Deadweight Tester

The P3200 models are available in single or dual piston formats for increased operating ranges. Units can be supplied in psi, bar, kgf/cm², and MPa. This robust instrument is highly accurate, quick and easy to use. Units feature a built-in priming pump for large volume applications, piston flotation indicators and a high quality screw press for fine pressure control.

Options

PressCal software for pressure calculations and certificate generation

Specifications: Fluke Calibration P3200 Hydraulic Deadweight Tester

Pressure Ranges	
Distilled water operated	Ranges to 10,000 psi (700 bar)
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.	
Materials of Construction	
Standard weight material	Series 3 non-magnetic austenitic stainless steel
Weight density	7.8 g/cm³
Optional fractional weights	Solution heat treated aluminum
Weight density	2.7 g/cm³
Piston material	Tungsten carbide with nickel binder Density- 15.0 g/cm³
Cylinder material	Hardened martensitic steel Tungsten carbide (water above 500 psi, 35 bar)
Thermal coefficients of expansion	Oil piston/cylinder 16.5 ppm/°C Water (above 500 psi, 35 bar) 11 ppm/°C
General	
Test port adaptors	1/8, 1/4, 3/8 and 1/2 NPT or BSP
Instrument weight	36 lbs (16 kg)
Instrument size (W x D x H)	17.5 x 12 x 8.5 in (440 x 300 x 215 mm)
Mass set weight (typical)	80 lbs (36 kg)
Reservoir volume	150 cc
Screw press displacement	5.5 cc
Pump displacement	4.7 cc per stroke
O-ring seal materials	Buna N as standard, Viton and EPDM available
Weight Increments	
Minimum standard weight increments	Up to 500 psi (35 bar): 1 psi (0.1 bar) 500 to 5000 psi (35 to 350 bar): 10 psi (1 bar) 5000 to 20,000 psi (350 to 1400 bar): 20 psi (2 bar) Model P3112: 1 psi (0.1 bar)
Optional fractional weights	Up to 500 psi (35 bar): 0.1 psi (0.01 bar) 500 to 5000 psi (35 to 350 bar): 1 psi (0.1 bar) 5000 to 20,000 psi (350 to 1400 bar): 2 psi (0.2 bar)
Operating Fluids	
Operating fluids	Distilled or deionized water

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
Fluids	Instruments can be supplied for use with Skydrol or brake fluids. Due to the aggressive nature of these fluids the standard nitrile seals and the acrylic reservoir tube will be replaced by either Viton or EPDM seals (as applicable) and an aluminum reservoir tube. For these or any other specialty fluid applications, please consult the factory.

Ordering information

Fluke P3214-1

Fluke Calibration P3214-1 Hydraulic Deadweight Tester
Pressure Range 20 to 700 bar

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3211-1

Fluke Calibration P3211-1 Hydraulic Deadweight Tester
Pressure Range 1 to 35 bar

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3211-3

Fluke Calibration P3211-3 Hydraulic Deadweight Tester
Pressure Range 10 to 500 psi

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3211-2

Fluke Calibration P3211-2 Hydraulic Deadweight Tester
Pressure Range 1 to 35 kgf/cm²

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3211-4

Fluke Calibration P3211-4 Hydraulic Deadweight Tester
Pressure Range 100 to 3,500 kPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3211-5

Fluke Calibration P3211-5 Hydraulic Deadweight Tester
Pressure Range 0.1 to 3.5 MPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3213-1

Fluke Calibration P3213-1 Hydraulic Deadweight Tester
Pressure Range 10 to 350 bar

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3213-2

Fluke Calibration P3213-2 Hydraulic Deadweight Tester
Pressure Range 10 to 350 kgf/cm²

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3213-3

Fluke Calibration P3213-3 Hydraulic Deadweight Tester
Pressure Range 100 to 5,000 psi

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3213-4

Fluke Calibration P3213-4 Hydraulic Deadweight Tester
Pressure Range 1,000 to 35,000 kPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3213-5

Fluke Calibration P3213-5 Hydraulic Deadweight Tester
Pressure Range 1 to 35 MPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3214-2

Fluke Calibration P3214-2 Hydraulic Deadweight Tester
Pressure Range 20 to 700 kgf/cm²

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3214-3

Fluke Calibration P3214-3 Hydraulic Deadweight Tester
Pressure Range 200 to 10,000 psi

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3214-4

Fluke Calibration P3214-4 Hydraulic Deadweight Tester
Pressure Range 2,000 to 70,000 kPa

Includes:

- Hydraulic Deadweight Tester

- Water operated – single PCU

Fluke P3214-5

Fluke Calibration P3214-5 Hydraulic Deadweight Tester
Pressure Range 2 to 70 MPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – single PCU

Fluke P3223-1

Fluke Calibration P3223-1 Hydraulic Deadweight Tester
Pressure Range 1 to 350 bar

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3223-2

Fluke Calibration P3223-2 Hydraulic Deadweight Tester
Pressure Range 1 to 350 kgf/cm²

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3223-3

Fluke Calibration P3223-3 Hydraulic Deadweight Tester
Pressure Range 10 to 5,000 psi

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3223-4

Fluke Calibration P3223-4 Hydraulic Deadweight Tester
Pressure Range 100 to 35,000 kPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3223-5

Fluke Calibration P3223-5 Hydraulic Deadweight Tester
Pressure Range 0.1 to 35 MPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3224-1

Fluke Calibration P3224-1 Hydraulic Deadweight Tester
Pressure Range 1 to 700 bar

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3224-2

Fluke Calibration P3224-2 Hydraulic Deadweight Tester
Pressure Range 1 to 700 kgf/cm²

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3224-3

Fluke Calibration P3224-3 Hydraulic Deadweight Tester
Pressure Range 10 to 10,000 psi

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3224-4

Fluke Calibration P3224-4 Hydraulic Deadweight Tester
Pressure Range 100 to 70,000 kPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

Fluke P3224-5

Fluke Calibration P3224-5 Hydraulic Deadweight Tester

Pressure Range 0.1 to 70 MPa

Includes:

- Hydraulic Deadweight Tester
- Water operated – dual PCU

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