

MODEL BL502 PNEUMATIC DEADWEIGHT TESTER



With high precision accuracy, the model BL502 pneumatic deadweight tester is ideal primary standard for defining the pressure scale in pneumatic range from 5kPa to 10MPa. The piston cylinder assembly is the heart of the dead weight tester and responsible for its high accuracy. Because of the extreme hardness of this material, the pressure distortion (expansion) coefficient is negligible. The low friction coefficient provides minutes of turning with just a little swing of the masses.

FEATURES

- 0.005%, 0.01%, 0.02%, 0.05% accuracy
- Accuracy of lower limit range keeps same as upper limit range
- The piston and cylinder is tungsten carbide, which provides stability, durability, and low thermal coefficients and distortion.
- Low pressure (≤ 700kPa) can be applied by built-in hand pump. High pressure (>700kPa) is applied by external gas supply.
- High quality needle valves provide optimum control and sealing
- Assembled three-stages air purifier on a molecule filter level (0.01μ m).
- ISO17025 accredited calibration is optional
- Absolute pressure chamber (optional)

APPLICATION

- Primary pressure standard in lab
- Reference pressure measure in workshop

PRESSURE RANGE SELECTABLE SHEET

PART#	Pressure Range	Accuracy	Area	Mass
KYQ250	5kPa~250kPa	0.05, 0.02, 0.01, 0.005	5 cm ²	12.5kg
KYQ400	5kPa~400kPa	0.05, 0.02, 0.01, 0.005	5 cm ²	20 kg
KYQ600	10kPa~600kPa	0.05, 0.02, 0.01, 0.005	5 cm ²	30 kg
KYQ1M	20kPa∼1MPa	0.05, 0.02, 0.01, 0.005	5 cm ²	50 kg
KYQ1.6M	30kPa∼1.6MPa	0.05, 0.02, 0.01, 0.005	2 cm ²	32 kg
KYQ2.5M	40kPa∼2.5MPa	0.05, 0.02, 0.01, 0.005	1 cm ²	25 kg
KYQ4M	100kPa∼4MPa	0.05, 0.02, 0.01, 0.005	0.5 cm ²	20 kg
KYQ6M	100kPa∼6MPa	0.05, 0.02, 0.01, 0.005	0.5 cm ²	30 kg
KYQ10M	200kPa∼10MPa	0.05, 0.02, 0.01, 0.005	0.5 cm ²	50 kg

SPECIFICATION

- Accuracy:0.05%, 0.02%, 0.01%, 0.005%
- Piston and cylinder material: Tungsten Carbide
- Mass material: 304 stainless steel
- Pipe line material: 316L stainless steel
- Pneumatic base material: 304 stainless steel
- Seal material: Buna-N, PTFE, Cu Alloy
- Medium: Dry air (≤ 700kPa), Pure nitrogen (>700kPa)
- Gravity: Standard 9.80665 m/s², or customize local gravity.
- Pressure units available: MPa, bar, psi (optional)
- Pressure connector: Metric, (NPT and BSP is optional)
- Base dimension: 185 mm (H) x 455 mm (L) x 380 mm (D)
- Base weight: Appro.15kg

SCOPE OF DELIVERY

- BL502 Pneumatic deadweight tester base
- Piston cylinder unit
- 304 stainless steel mass set
- Mass carrier or bell
- Adapter kits (1/4" NPT, ½" NPT, ¼" G, ½" G)
- User manual
- Transit case

OPTIONAL ACCESSORIES AND SERVICES

- ISO17025 calibration certificate (P/N:9000-502)
- Electric pressure pump (P/N: 1541)
- 10MPa abs. absolute pressure chamber (P/N: 1559)
- Pressure reducer valve with pipe (P/N: 1543)
- Molecule filter for input air (P/N: 1554)
- Liquid-gas filter for return line (P/N: 1555)
- Liquid-gas separator filter 10MPa (P/N: 1556)
- Trim mass set (P/N: F2-50GSET-304)

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Forged 316 stainless steel mass set (P/N: MS-316)

HOW TO ORDER

BL502 / part number / accuracy / gravity value