

MODEL BL505 DUAL PISTON PRESSURE BALANCE



The model BL505 dual piston pressure balance is based on the principle of static pressure, which achieves a force balance system through a master piston and a slave piston. When the system is under positive pressure, the balance of the two pistons is disrupted. The slave piston rises and the master piston falls. In order to restore the original balance of the system, several weights must be added to the slave piston to restore balance. At this time, the weight of the added weights is the pressure value of the tested system. Vice versa, if vacuum is introduced to the system, the slave piston falls and the master piston rises. At this time, several weights must be added to the master piston to balance it, and the weight of the added weights is the vacuum value of the tested system.

FEATURES

- Motor drives the weight rotating.
- Front LED shows piston position, real temperature and humidity.
- The oil pressure regulator and oil gas isolator are equipped with needle valves.
- ISO17025 accredited calibration

APPLICATION

- Calibrate spring tube pressure gauges and precision spring tube vacuum gauges.
- Test mercury pressure gauges and non-corrosive industrial pressure gauges.

SPECIFICATION

- Piston material: Tungsten Carbide
- Cylinder material: Tungsten Carbide

- Pressure range: -0.1MPa to 0.25MPa / 0.6MPa / 1 MPa
- Accuracy

	XYSS-2.5	XYSS-6	XYSS-10
	(-0.1~0~0.25) MPa	(-0.1~0~0.6) MPa	(-0.1~0~1) MPa
0.01 class	(-0.1~-0.01)MPa: ±0.01%rd (-0.01~0~0.01)MPa: ±1 Pa (0.01~0.25)MPa: ±0.01%rd	(-0.1~-0.01)MPa: ±0.01%rd (-0.01~0~0.01)MPa: ±1 Pa (0.01~0.6)MPa: ±0.01%rd	(-0.1~-0.01)MPa: ±0.01%rd (-0.01~0~0.01)MPa: ±1 Pa (0.01~1)MPa: ±0.01%rd
0.02 class	(-0.1~-0.01)MPa: ±0.02%rd (-0.01~0~0.01)MPa: ±2 Pa (0.01~0.25)MPa: ±0.02%rd	(-0.1~-0.01)MPa: ±0.02%rd (-0.01~0~0.01)MPa: ±2 Pa (0.01~0.6)MPa: ±0.02%rd	(-0.1~-0.01)MPa: ±0.02%rd (-0.01~0~0.01)MPa: ±2 Pa (0.01~1)MPa: ±0.02%rd
0.05 class	(-0.1~-0.01)MPa: ±0.05%rd (-0.01~0~0.01)MPa: ±5 Pa (0.01~0.25)MPa: ±0.05%rd	(-0.1~-0.01)MPa: ±0.05%rd (-0.01~0~0.01)MPa: ±5 Pa (0.01~0.6)MPa: ±0.05%rd	(-0.1~-0.01)MPa: ±0.05%rd (-0.01~0~0.01)MPa: ±5 Pa (0.01~1)MPa: ±0.05%rd

- Mass Quantity

Part #	XYSS-2.5	XYSS-6	XYSS-10
	(-0.1~0~0.25) MPa	(-0.1~0~0.6) MPa	(-0.1~0~1.0) MPa
0.1 MPa	1 piece	5 pieces	9 pieces
0.05 MPa	2 pieces	1 piece	1 piece
0.02 MPa	1 piece	1 piece	1 piece
0.01 MPa	2 pieces	2 pieces	2 pieces
0.005 MPa	1 piece	1 piece	1 piece
0.002 MPa	2 pieces	2 pieces	2 pieces
0.001 MPa	1 piece	1 piece	1 piece
-0.05 MPa	1 piece	1 piece	1 piece
-0.02 MPa	1 piece	1 piece	1 piece
-0.01 MPa	2 pieces	2 pieces	2 pieces
-0.005 MPa	1 piece	1 piece	1 piece
-0.002 MPa	2 pieces	2 pieces	2 pieces
-0.001 MPa	1 piece	1 piece	1 piece

- Mass material: 304 stainless steel
- Base material: Aluminium alloy
- Medium: Dry air or pure nitrogen
- Gravity: Customize to local or standard 9.80665 m/s²
- Pressure connector: Metric
- Power supply: 100-240VAC
- Base dimension: 310 mm (H) x 680 mm (L) x 480 mm (D)
- Base weight: 26kg

SCOPE OF DELIVERY

- BL505 Dual piston pressure balance base
- Master and slave piston cylinder unit
- Master and slave 304 stainless steel mass set
- Master and slave mass carrier or bell
- Adapter kits (1/4" NPT, 1/2" NPT, G1/4, G1/2)

OPTIONAL ACCESSORIES AND SERVICES

- ISO17025 calibration certificate (P/N:9000-502)
- Manual operated pneumatic hand pump

ORDERING MODEL NUMBER

- BL505 / part number / accuracy / gravity value