

Differential Dead weight tester - Hi-tech / Pneumatic



✓ Applications

This primary standard Range are designed to test, adjust and calibrate measuring instruments, mechanical or electronic pressure by comparison (pressure gauges, pressure transmitters or sensors or switches)

They consist of two pressure generators, two piston / cylinder units, two sets of weights identified and made for this pistons.

This reference instrument is used in factory or calibration laboratory. They are robust and easy to use and have a high long-term stability.

✓ Technical specifications of the range BDA3

- Calibration : Our dead weight tester are calibrated under the following conditions of use :

Temperature 20°C - Pressure atmos. 1013.25 hPa - Humidity 50% - acceleration 9.80665 m/s²) In case you don't use it under the conditions mentioned above, it is necessary to recalculate the

pressure generated by the dead weight according to the different variables.

- **Fluid**: no lubrification with oil – only air

- Source pressure : Dry air - gas connection 1/4 cylindrical female - This balance needs to be connected to a

pressure source / Azote type U

- Check/adjust the seat : leveling bubble and adjustable feet

- Connecting for the instrument to be tested : swivel G1/4 standard – other optional fittings

- Motorization/Visualization : Driving of the rotating weight with display of the position of the piston leds luminous

- **Crankcase**: Light alloy aluminium AG3 + high-resistance paint

- Capstan : removable for transport

- **Piston/cylinder** : Single piston treated steel - **Repetability**: 2.10-5 - **Sensitivity** : 1.10-5 -

Precision dead weight: 10-4

- Weight: non magnetic stainless steel – Total weight of the set of weights from 4 kg to 48 kg depending

on model - Ergonomic shape of the masses, easy loading of the masses on the bell - Marking

corresponding with the measuring unit choose (bar, mbar, KPa, PSI etc..) **Gravity**: standard (9.80665 m/s²) or local gravity without supplement

- Operating temperature: 18 to 28°C – 64 to 82°F

✓ Specific Model

- Model: BDA2-10B – dead weight

- Measuring range: 0.15 to 10 bar

- Uncertainly of the pressure measured by the DWT: the total uncertainty of the balance is less than 0.01% of the pressure

differential + 0.002% of the static pressure

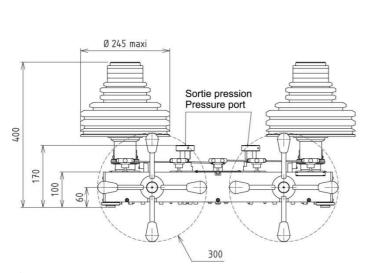
- Weight dead weight without weight: 40 kg
 - Base generator: CA2-200B
 - Typical cross-section of the piston: 156.960 mm²

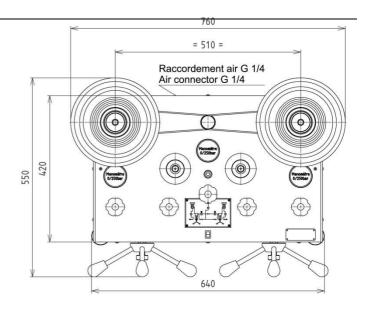
- Material Piston/Cylinder : P + C = treated steel

- Number of piston :

- Delivery details: a manual are provided in English or French with the device + a factory calibration certificate traceable to the national standards
- + data sheet +Certificate
- Maintenance: Our technical service department is at your disposition for the revision, calibration or service your unit Calibration device recommended every 2 or 5 years depending on your use

✓ Dimensions of device





✓ Standard weight sets and intermediate

Principal set			
	Pressure (bar)	Total weight	Typical value (g)
Unités : BAR (Ref. MB0006)	2	3	3200
	1	2	1600
	0.85	1	1360
	0.5	1	800
	0.2	2	320
	0.1	1	160
	0.05	1	80
Initial Pressure	0.15		240
bell + weight adaptation			
TOTAL	10.05	11	±16 kg

Intermediaite set				
BAR (Ref. MB0007)	Pressure (bar)	Total weight	Typical value (g)	
	0.025	1	40	
	0.01	2	16	
	0.005	1	8	
TOTAL	0.05	4	80 g	

Jeintermediaite set for tare			
BAR	Pressure (bar)	Total weight	Typical value (g)
(Ref. MB0032)	0.025	1	40
,	0.01	2	16
TOTAL	0.45	3	66 g

The tare date weight tester has a set of weights similar to the standard scale. We provide a box of balancing weight from 1mg to 50g

✓ Options of the dead weight tester





transport metal boxes (OP0101): 260 x 260 x 310 mm - weight empty: 6 kg





Suitcase for post planning and transportation

(OPxxxx) large : $355 \times 505 \times 310 \text{ mm}$ - weight empty : 13 kg + (OPxxxx) small : $290 \times 250 \times 310 \text{ mm}$ - weight empty : 5 kg

✓ Options of the dead weight tester

- On request : free adjustment with an special acceleration different from 9.80665 m / s2 (= standard)
- Calibration of the instrument : certificate of calibration DAkkS or COFRAC
- oxygen degreasing possible as an option (contact us)

- Packaging: woodpack is provided for the

Designation/Reference	Dimension / carton or shipping crate	Weight empty / total weight (packaging + materiel)
Dead weight without weight		Carton empty 1.5 kg Total weight ±24 kg
Standard weight set		Carton empty 1.5 kg Total weight ± 70 kg
Wood packaging SB0003		Suitcase empty 20 kg Total weight ± 115 kg (dead weight + weight set + packaging)



SB0003

- Note: shipping is extra

✓ Other models available in the range BDA3

(Datasheet is available on request or on our website : www.aremeca-instrumentation.com)

Models simple piston

		Measuring range		
Consult us!	Accuracy	Bar or kg/cm²	Bar or kg/cm ²	Bar or kg/cm²
Nous consulter!				

✓ **Accessories** (Ask for our specific documentation)



- Connectors up to 1200 bar: suitcase connectors M (ref.OP0174) – suitcase connectors G (ref.OP0171) - suitcase connectors NPT (ref.OP0172) - suitcase connectors BSP-TR (ref.OP0173) - suitcase with 17 connectors M + G + NPT + BSP-TR (ref.OP0037) – unit connector



