mass comparator

Sartorius Volume Comparator
Model VD1005 | VL1005

Special performance features:

- Monolithic weighing technology
- Calibration of the volulmes of objects with masses of 1 g to 1 kg according to the buoyancy method
- Highly accurate differential weighing in liquid
- Load receptor for individual weights of any shape and of density standards and density reference spheres
- Fully automatic measurement sequence for any combinations up to 1 kg
- Closed weighing chamber in liquid; equipped with feedthroughs for the load alternator, sensors, weighing pan and loading device
- The water batch completely surrounds the weighing chamber in liquid
- Automatic load alternator with 9 positions in liquid (e.g., water)
- Second automatic load alternator with 9 positions for measuring the mass of substitution weights in air
- 2 temperature sensors (PT100) in the weighing chamber with measuring, bridge, readability of 0.001°C
- Additional sensors for air temperature, relative humidity and air pressure are integrated in the weighing chamber for air
- Measurement equipment and controls in two separate cabinets with access to all components
- Industrial standard PC with TFT monitor
- Software for control and calculation of density values
- Control panel with ports for additional networking (USB, LAN)
- Thermally insulated and closed measurement cabinet contains water bath in liquid and built-in load alternator, sensors in air and liquid, motor for lifting and rotating mechanism, and a granite slab for the mass comparator with feedthrough for below-balance weighing

Model	VD1005	VL1005
Maximum capacity	1125 g	1125 g
Electronic weighing range & taring range	305 g	305 g
Readability	10 µg	10 µg
Repeatability (typical), s*	20 µg	20 µg

Technical Specifications

Modell	VD1005	VL1005
Maximum capacity	1125 g	1125 g
Application range	1 g - 1 kg	1 g - 1 kg
Readability	10 µg	10 µg
Repeatability, s*	40 µg	40 µg
Repeatability (typical), s*	20 µg	20 µg
Density uncertainty	1 kg/m³	1 kg/m³
Volume uncertainty	0.00015 cm³	0.00015 cm³
Electronic weighing range & taring range	305 g	305 g
Linearity	0.12 mg	0.12 mg
Off-center loading error	0 mg	0 mg
Range sensitivity	20 µg / g	20 µg / g
Stabilization time	20 s	20 s

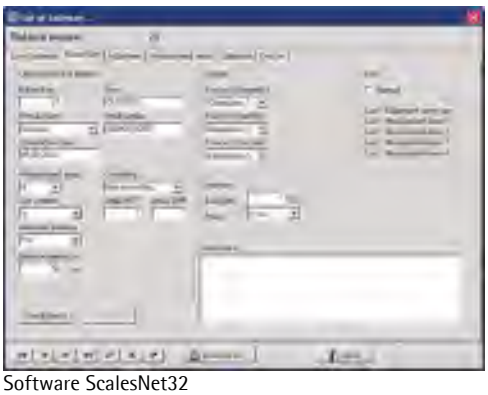
Basic Equipment		
Load alternator	2x9	9
Interfaces	LAN|USB|RS232	LAN|USB|RS232
Draft shield	x	x
Enclosure	x	x
Control unit	x	x
PC	x	x
PC software	x	x
Air temperature sensor	1	1
Air moisture sensor	1	1
Air pressure sensor	1	1
Liquid temperature sensor	2	2
Test certificate	BEV	BEV

Ambient Conditions		
Permissible operating temperature range	17-27 °C	17-27 °C
Recommended operating temperature	22 °C	22 °C
Temperature fluctuation	0.1 °C/h|0.3 °C/12h	0.1 °C/h|0.3 °C/12h
Max. air movement	< 0.2 m/s	< 0.2 m/s
Humidity range	40-60%	40-60%
Humidity fluctuation	5%/4h	5%/4h
Power supply	100-240V AC/50-60Hz	100-240V AC/50-60Hz

Dimensions		
Weighing pan diameter	75 mm	75 mm
Sample size(DxH)	6-95x120 mm	6-95x120 mm
Diameter range for a silicon sphere	8-100 mm	8-100 mm
Measurement unit(WxDxH)	600x600x1600 mm	600x600x1600 mm
Control unit(WxDxH)	600x600x1600 mm	600x600x1600 mm
Filling capacity, tempering bath	100 l	100 l
Filling capacity, measurement cell	28 l	28 l
Optimal height for setup	400 mm	400 mm
Optimal room height	≥ 3000 mm	≥ 3000 mm

Applications		
OIML R111, class E1	1 g - 1 kg	1 g - 1 kg
ASTM E617, class 0	1 g - 1 kg	1 g - 1 kg

Accessories		
External calibration weight	200 g|E2 YCW522-00	200 g|E2 YCW522-00
Climate station for E1	YCM05C	YCM05C
Climate station for E2	YCM03C	YCM03C
Weighing table	YWT20C	YWT20C
Thermostat	YVT01C	YVT01C
Density reference (Si)	200|500|1000g	200|500|1000g
Density reference (Zerudur)	200|500|1000g	200|500|1000g
Density reference, weight set 1 g - 1 kg	YCS31-612-09	YCS31-612-09
Substitution weight set	YCS51-612-02	YCS51-612-02



Software ScalesNet32

Weights

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