



NC-001-0.2K-E1-ASS

Calibration Weights Set - E1 class

Application

Weights intended to ensure traceability between national mass standards (with values derived from the International Prototype of the kilogram) and weights of class E2 and lower.

Class E1 weights or weight sets shall be accompanied by a calibration certificate.

Used as a primary reference for calibrating other reference standards and weights where the stability of the environment and careful handling are assured. Class E1 weights have no method of adjustment and are not suitable for general laboratory use. The uncertainty is guaranteed to be 1/3 the tolerance.

Calibration Weights Set

E1

Technical Specifications

Brand	NSTAR
Model	NC-001-0.2K-E1-ASS
Class	OIML E1
Material	Austenitic stainless steel (Density $8.00 \pm 0.03 \text{ g/cm}^3$)
Cavity	Monoblock construction, No adjustable cavity
Surface	Highly polished mirror finish, [Rz < 0.5, Ra < 0.1 (μm)]
Magnetic Properties	Maximum magnetic polarization, $\mu_0 M$, (μT) < 2.5
Contents of Weights	1-2-2*-5-10-20-20*-50-100-200-200*-500 mg (12 pcs) 1-2-2*-5-10-20-20*-50-100-200-200* g (11 pcs)
Marking	No denomination marking on test weights Distinguish mark is available on second weight
Standards	OIML R-111, 2004 (E)
Certificate	NABL accredited certificate - 2 years validity



Shape

Denomination

Pentagon	500 mg, 50 mg, 5 mg
Square	200 mg, 20 mg, 2 mg
Triangle	100 mg, 10 mg, 1 mg
Cylindrical knob	1 g to 200 g

*Note : All milligram weights are in wire shape

Dimensions

Storage Case	Aluminium storage case with accessories
Weight Box Size	30 x 20 x 10 cm (L x W x H)
Net Weight	1.4 kg
Number of Package	1
Gross Weight	1.7 kg
Package Data	33 x 22 x 15 cm (L x W x H)
External Packing	Corrugated boxes



Tolerance and Uncertainties

Denominations	Tolerance# (mg)	Uncertainty* (mg)
1 mg	0.003	0.0010
2 mg	0.003	0.0010
5 mg	0.003	0.0010
10 mg	0.003	0.0010
20 mg	0.003	0.0010
50 mg	0.004	0.0013
100 mg	0.005	0.0016
200 mg	0.006	0.0020
500 mg	0.008	0.0026
1 g	0.010	0.0030
2 g	0.012	0.0040
5 g	0.016	0.0050
10 g	0.020	0.0066
20 g	0.025	0.0080
50 g	0.030	0.010
100 g	0.050	0.016
200 g	0.100	0.03

Maximum Permissible Errors (MPE) as per OIML R-111

* Accredited CMC of Precimass LLP (CC-3213)

NSTAR Corp is offering assured 1/3rd uncertainty to the MPE for OIML E1 class weights set.



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