

Limit values

Model	XS105DU	XS205DU
Maximum load	120 g	220 g
Maximum load, fine range	41 g	81 g
Readability	0.1 mg	0.1 mg
Readability, fine range	0.01 mg	0.01 mg
Taring range	0...120 g	0...220 g
Repeatability (sd)	0.1 mg (100 g) ⁴⁾	0.1 mg (200 g) ⁴⁾
Repeatability (sd) at low load	0.05 mg (10 g) ⁴⁾	0.05 mg (10 g) ⁴⁾
Repeatability (sd), fine range	0.035 mg (40 g) ⁴⁾	0.04 mg (80 g) ⁴⁾
Repeatability (sd), fine range at low load	0.02 mg (10 g) ⁴⁾	0.02 mg (10 g) ⁴⁾
Linearity	0.2 mg	0.2 mg
Eccentric load deviation	0.3 mg (50 g) ⁴⁾	0.3 mg (100 g) ⁴⁾
Sensitivity offset	$8 \cdot 10^{-6} \cdot R_{nt}$	$4 \cdot 10^{-6} \cdot R_{nt}$
Sensitivity temperature drift ¹⁾	$1.5 \cdot 10^{-6} / ^\circ\text{C} \cdot R_{nt}$	$1.5 \cdot 10^{-6} / ^\circ\text{C} \cdot R_{nt}$
Sensitivity stability ²⁾	$2 \cdot 10^{-6} / \text{a} \cdot R_{nt}$	$2 \cdot 10^{-6} / \text{a} \cdot R_{nt}$
Interface update rate	23 /s	23 /s
Internal adjustment weights ³⁾	2	2
Balance dimensions (W x D x H) [mm]	263 x 453 x 322	263 x 453 x 322
Usable height of draft shield [mm]	235	235
Weighing pan dimensions (W x D) [mm]	78 x 73	78 x 73
Weight [kg]	9.1	9.1

Typical data

Model	XS105DU	XS205DU
Repeatability (sd)	$0.04\text{mg} + 2 \cdot 10^{-7} \cdot R_{gr}$	$0.04\text{mg} + 2 \cdot 10^{-7} \cdot R_{gr}$
Repeatability, fine range (sd)	$0.01\text{mg} + 4 \cdot 10^{-7} \cdot R_{gr}$	$0.01\text{mg} + 3 \cdot 10^{-7} \cdot R_{gr}$
Differential nonlinearity(sd)	$\sqrt{(4 \cdot 10^{-11} \text{g} \cdot R_{nt})}$	$\sqrt{(2 \cdot 10^{-11} \text{g} \cdot R_{nt})}$
Differential eccentric load deviation (sd)	$1.5 \cdot 10^{-6} \cdot R_{nt}$	$8 \cdot 10^{-7} \cdot R_{nt}$
Sensitivity offset (sd)	$2 \cdot 10^{-6} \cdot R_{nt}$	$1.5 \cdot 10^{-6} \cdot R_{nt}$
Minimum weight ⁵⁾ (according to USP)	$120\text{mg} + 6 \cdot 10^{-4} \cdot R_{gr}$	$120\text{mg} + 6 \cdot 10^{-4} \cdot R_{gr}$
Minimum weight, fine range ⁵⁾ (nach USP)	$30\text{mg} + 1.2 \cdot 10^{-3} \cdot R_{gr}$	$30\text{mg} + 9 \cdot 10^{-4} \cdot R_{gr}$
Minimum weight ⁵⁾ (1%, 2 sd)	$8\text{mg} + 4 \cdot 10^{-5} \cdot R_{gr}$	$8\text{mg} + 4 \cdot 10^{-5} \cdot R_{gr}$
Minimum weight, fine range ⁵⁾ (1%, 2 sd)	$2\text{mg} + 8 \cdot 10^{-5} \cdot R_{gr}$	$2\text{mg} + 6 \cdot 10^{-5} \cdot R_{gr}$
Settling time	1.5 s	1.5 s
Settling time, fine range	4 s	4 s

R_{gr} = Gross weight
 R_{nt} = Net weight (sample weight)
sd = Standard deviation
a = Year (annum)

¹⁾ In the temperature range 10...30 °C

²⁾ Sensitivity drift/year after putting into operation for the first time, with the FACT self-calibration function activated

³⁾ The adjustment weights of the XS analytical balances are made from stainless antimagnetic chrome-nickel steel. The masses of the adjustment weights are traceable to the prototype kilogram which is the standard unit of mass kept in Paris.

⁴⁾ Measured at (... g)

⁵⁾ The minimum weight can be improved by the following measures:

- Selecting suitable weighing parameters
- Choosing a better location
- Using smaller taring containers