

# Product information

## Calibration measuring instruments Precimar ULM 1000 S-E

### Product features

Large universal length measuring instruments with large direct measuring range are mounted on highly homogeneous rigid granite in a horizontal configuration

#### X-axis measuring system:

- Heidenhain incremental, precision length measuring system, 100 mm long in measuring element
- Heidenhain incremental incident light measuring systems covering the entire length of the base bed and to its right and left

#### Z-axis measuring system:

Renishaw incremental, precision length measuring system, 80 mm long

### Package contains

Standard software 828 WIN "Free measuring", PC evaluation unit (without monitor), Magnetic holder for temperature probe, Pair of measuring brackets, immersion depth 14 mm, 2 parallel gage blocks 60/20, 2 quick clamps, 2 measuring heads with spherical zone, Setting gage 2, USB stick, Weights 0.25/0.5/1.0/2.0N, Hexagonal wrench, Screwdriver, Accessories package

### Application

Calibration of:

- Plain plug gages and gage rings
- Setting gage rings
- Snap gages
- Spherical gage blocks, internal micrometers
- Gage blocks
- Thread gages
- Taper thread gages
- Gear gages
- Taper gages
- Dial indicators
- Dial comparators
- 2-point bore gages
- Outside micrometers
- 2-point inside micrometers



Item no.: 5350268

### Technical data

Device dimensions	1500 x 380 x 480
Measuring range for outer measurement [mm]	0 to 1025
Measuring range for inner measurement [mm]	0.5 to 870
Direct measuring range [mm]	Outer measurement: 0 to 1025 Inner measurement: 0.5 to 870
Measuring uncertainty $MPE_{E1}$ (L in mm) [ $\mu m$ ]	only with ABBE measuring element: $MPE E1 ? (0.09+L/2000)$ with base bed measuring system: $MPE E1 ? (0.6+L/1000)$
Measuring forces [N]	0.2 ; 1.0 to 4.5 ; 11
Repeatability [ $\mu m$ ]	With Abbe measuring element: $\leq 0.05$ With base bed measuring system: $\leq 0.2$
Device length [mm]	1500
Mass [kg]	215