

ISO 3611:2023-05 (E)

Geometrical product specifications (GPS) - Dimensional measuring equipment - Design and metrological characteristics of micrometers for external measurements

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Design characteristics	2
4.1	General design and nomenclature	2
4.2	Dimensions	3
4.3	Types of indicating device	3
4.3.1	General	3
4.3.2	Analogue indicating devices	3
4.3.3	Digital indicating devices	4
4.4	Frame	5
4.5	Measuring force limiting device	5
5	Metrological characteristics	5
5.1	General	5
5.2	Rated operating conditions	5
5.3	Reference point	5
5.4	Test methods	5
5.5	Length measurement error, E (limited by EMPE)	6
5.5.1	General	6
5.5.2	Test point selection	6
5.6	Variation in length measurement error, V (limited by VMPE)	6
5.6.1	General	6
5.6.2	Number of tests	7
5.6.3	Testing with optical parallels	7
5.7	Measuring forces	7
5.8	Specifications	7
5.8.1	General	7
5.8.2	Classification system	7
6	Determination of conformity to specifications	10
6.1	General	10
6.2	Measurement uncertainty	10
6.3	Decision rule	10
7	Marking	10
Annex A (informative) Calibration guidelines for metrological characteristics		11
Annex B (informative) Notes on use		12
Annex C (informative) Relation to the GPS matrix model		13
Bibliography		14