

DIN EN ISO 6145-5:2011-03 (E)

Gas analysis - Preparation of calibration gas mixtures using dynamic volumetric methods - Part 5: Capillary calibration devices (ISO 6145-5:2009)

Contents		Page
Foreword		
1	Scope	4
2	Normative references	4
3	Principle	4
4	Apparatus	5
4.1	Two-capillary blending system	5
4.1.1	Set-up	5
4.1.2	Apparatus	5
4.1.3	Procedure	6
4.2	Multiple capillary devices using gas dividers	7
4.2.1	Set-up of a gas divider	7
4.2.2	Gas dividers with a combination of non-identical capillaries	7
4.2.3	Gas dividers with a combination of identical capillaries	8
4.2.4	Operation of a gas divider with identical capillaries	9
4.2.5	Determination of the flow rates	9
5	Expression of results	10
5.1	Volume fraction	10
5.2	Sources of uncertainties	10
5.2.1	Temperature	10
5.2.2	Viscosity	10
5.2.3	Pressure	11
5.2.4	Geometry of the capillary tubes	11
5.3	Verification of the blending system/gas divider	11
5.4	Determination of uncertainties	11
Annex A (informative) Numerical example		13
Annex B (informative) Derivation of the formula for combined uncertainty in K		16
Bibliography		17