

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Symbols and subscripts	6
4.1 Symbols	6
4.2 Subscripts	7
5 Principle of the method of measurement and computation	7
5.1 Principle of the method of measurement	7
5.2 Method of determination of the diameter ratio of the selected standard primary device	8
5.3 Computation of flowrate	8
5.4 Determination of density, pressure and temperature	8
6 General requirements for the measurements	10
6.1 Primary device	10
6.2 Nature of the fluid	11
6.3 Flow conditions	11
7 Installation requirements	11
7.1 General	11
7.2 Minimum upstream and downstream straight lengths	13
7.3 General requirement for flow conditions at the primary device	13
7.4 Flow conditioners (see also Annex C)	13
8 Uncertainties on the measurement of flowrate	16
8.1 Definition of uncertainty	16
8.2 Practical computation of the uncertainty	17
Annex A (informative) Iterative computations	19
Annex B (informative) Examples of values of the pipe wall uniform equivalent roughness, k	21
Annex C (informative) Flow conditioners and flow straighteners	22
Bibliography	33