

# ISO 5167-6:2022-10 (E)

## Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 6: Wedge meters

	Contents	Page
Foreword .....	iv	
Introduction .....	v	
1 Scope .....	1	
2 Normative references .....	1	
3 Terms and definitions .....	1	
4 Principles of the method of measurement and computation .....	2	
5 Wedge meters .....	3	
5.1 Field of application .....	3	
5.2 General shape .....	4	
5.3 Material and manufacture .....	5	
5.4 Pressure tappings .....	5	
5.5 Discharge coefficient, C .....	6	
5.5.1 Limits of use .....	6	
5.5.2 Discharge coefficient of the wedge meter .....	6	
5.6 Expansibility [expansion] factor, .....	6	
5.7 Uncertainty of the discharge coefficient, C .....	7	
5.8 Uncertainty of the expansibility [expansion] factor, .....	7	
5.9 Pressure loss .....	7	
6 Installation requirements .....	7	
6.1 General .....	7	
6.2 Minimum upstream and downstream straight lengths for installations between various fittings and the wedge meter .....	7	
6.3 Additional specific installation requirements for wedge meters .....	8	
6.3.1 Circularity and cylindricity of the pipe .....	8	
6.3.2 Roughness of the upstream and downstream pipe .....	8	
6.3.3 Positioning of a thermowell .....	8	
6.3.4 Bidirectional wedge meters .....	9	
7 Flow calibration of wedge meters .....	9	
7.1 General .....	9	
7.2 Test facility .....	9	
7.3 Meter installation .....	9	
7.4 Design of the test programme .....	9	
7.5 Reporting the calibration results .....	10	
7.6 Uncertainty analysis of the calibration .....	10	
7.6.1 General .....	10	
7.6.2 Uncertainty of the test facility .....	10	
7.6.3 Uncertainty of the discharge coefficient of the wedge meter .....	10	
Annex A (informative) Table of expansibility [expansion] factor .....	11	
Annex B (informative) Use of Kd2 parameter .....	12	
Bibliography .....	13	