ISO 5167-2:2003-03 (E)

Measurement of fluid flow by means of pressure differential devices inserted in circular cross-section conduits running full - Part 2: Orifice plates

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms, definitions and symbols 1

4 Principles of the method of measurement and computation 2

5 Orifice plates 2
5.1 Description 2
5.2 Pressure tappings 6
5.3 Coefficients and corresponding uncertainties of orifice plates 10
5.4 Pressure loss, ... 13

6 Installation requirements 15
6.1 General 15
6.2 Minimum upstream and downstream straight lengths for installation between various fittings and the orifice plate 15
6.3 Flow conditioners 20
6.4 Circularity and cylindricality of the pipe 26
6.5 Location of orifice plate and carrier rings 27
6.6 Method of fixing and gaskets 28

Annex A (informative) Tables of discharge coefficients and expansibility [expansion] factors 29

Annex B (informative) Flow conditioners 41

Bibliography 46