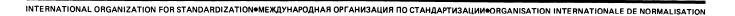
International Standard



Determination of flowrate of fluids in closed conduits of circular cross-section — Method of velocity measurement at one point of the cross-section

Détermination du débit des fluides dans les conduites fermées de section circulaire – Méthode par mesure de la vitesse en un seul point

First edition - 1982-09-15

Ref. No. ISO 7145-1982 (E)

Descriptors : flow measurement, determination, flowrate, flowmeter, velocity measurement.

7145

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 7145 was developed by Technical Committee ISO/TC 30, *Measurement of fluid flow in closed conduits*, and was circulated to the member bodies in April 1981.

It has been approved by the member bodies of the following countries :

Australia Belgium Czechoslovakia Egypt, Arab Rep. of France India	Italy Japan Korea, Dem. P. Rep. of Korea, Rep. of Netherlands Norway	Portugal Romania South Africa, Rep. of United Kingdom USSR
India	Norway	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Germany, F. R. USA

© International Organization for Standardization, 1982 ●

Printed in Switzerland

Contents

		Page
1	Scope and field of application	1
2	Symbols and definitions	1
3	Principle	3
4	Procedure	4
5	Uncertainties of measurement	5
Aı	nnexes	
A	Determination of the transverse velocity gradient at the point of mean axia velocity	
В	Example of calculation of the uncertainty of a flow measurement when the primary device is placed at the point of mean axial velocity	
С	Example of calculation of the uncertainty of a flow measurement when the primary device is placed on the axis of the conduit	e . 10