

BS 7118: Part 2: 1989

ISO 7066-2 : 1988

UDC 532.57.089.6 : 681.121.089.6 : 532.57.088.3

British Standards Institution. No part of this publication may be photocopied or otherwise reproduced without the prior permission in writing of BSI

British Standard

Measurement of fluid flow: assessment of uncertainty in the calibration and use of flow measurement devices

Part 2. Non-linear calibration relationships

[ISO title: Assessment of uncertainty in the calibration and use of flow measurement devices – Part 2 Non-linear calibration relationships]

Mesure de débit des fluides: calcul de l'incertitude lors de l'étalonnage et de l'utilisation d'appareils de mesure de débit

Partie 2. Relations d'étalonnage non linéaires

Durchflußmessung; Beurteilung der Meßunsicherheit bei der Kalibrierung und Anwendung von Durchflußmeßeinrichtungen

Teil 2. Nichlineare Kalibrierkurven

BS 7118: Part 2: 1989

National foreword

This Part of BS 7118 has been prepared under the direction of the Industrial-process Measurement and Control Standards Policy Committee and is identical with ISO 7066-2 'Assessment of uncertainty in the calibration and use of flow measurement devices-Part 2: Non-linear calibration relationships', published by the International Organization for Standardization (ISO).

It is envisaged that BS 7118: Part 1, dealing with linear calibration relationships, will be identical with ISO 7066-1*.

Terminology and conventions. The text of the international standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used in certain places as a decimal marker. In British Standards it is current practice to use a full point on the baseline as a decimal marker.

Wherever the words 'this part of ISO 7066' appear, referring to this standard, they should be read as 'this Part of BS 7118'.

Cross-reference

International standard Corresponding British Standard

ISO 5168-1987 BS 5844: 1980 Methods of measurement of fluid flow: estimation of uncertainty of a

flow-rate measurement

(Identical)

Compliance with a British Standard does not of itself confer immunity from legal obligations.

^{*} In preparation

C	ontents	Page
Na	ational foreword Inside front c	over
Co	ommittees responsible	over
0	Introduction	2
1	Scope and field of application	2
2	References	2
3	Definitions	2
4	Symbols and abbreviations	2
5	Curve fitting	3
	5.1 General	3
	5.2 Computational methods	4
	5.3 Selecting the optimum degree of fit	4
6	Uncertainty	5
A	nnexes	
A	Regression methods	6
В	Orthogonal polynomial curve fitting	10
С	Computer program using orthogonal polynomials	12
D	Examples	18
_	Civita difference method	20