

ICS 17.100
CCS N 11

YS

**NONFERROUS METALS INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

YS/T 683-2008

**Calibration specification for local mounting
pressure(differential pressure)transmitter**

压力(差压)变送器现场校准规范
(English Translation)

Issued on: March 12, 2008

Implemented on: September 1, 2008

Issued by: National Development and Reform Commission

Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and Definitions
4 Overview
5 Metrological characteristics
5.1 Measurement error
5.2 Return Error
5.3 Static error
5.4 Stability
5.5 Insulation resistance
6 Calibration conditions
6.1 Environmental conditions
6.2 Staff

Foreword

This standard by the National Standardization Technical Committee of non-ferrous metals and centralized.

The Standard Appendix A, Appendix B and Appendix C are informative appendices.

This standard by the Jinchuan Group Ltd. is responsible for drafting.

This standard by the Aluminum Corporation of China Henan Branch, Liuzhou China Tin Group Co., Ltd., Chinalco Luoyang Copper Co.

Division, Yunnan Copper Co., Ltd., Southwest Aluminum (Group) Co., Ltd. and Zhuzhou Smelter Group Co., Ltd. participated in the drafting.

1 Scope

This standard applies to include positive and negative pressure, differential and absolute pressure transmitters for field calibration.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

JJF1059-1999 Evaluation and Expression of Uncertainty in Measurement

3 Terms and Definitions

In measured on the same point, the absolute value of the difference between the actual value of the down stroke, the return is an error at this point.

4 Overview

Pressure variable pressure transmitter is converted to the corresponding normalized output signal can be transmitted meter. Mainly used for industrial process pressure (Or differential pressure) measured parameters.

Pressure transmitter consists of a pressure-sensitive components, signal processing and conversion units, according to the principle can be divided into capacitive, piezoresistive and so on.

Electric and pneumatic pressure transmitter has two categories. Normalized output signal electric pressure transmitter is 0mA ~ 10mA or DC signal 4mA ~ 20mA; the pneumatic pressure transmitter output signal is standardized gas pressure signal is 20kPa ~ 100kPa.

5.1 Measurement error

The maximum pressure transmitter measurement error shall not exceed the maximum permissible error.

5.2 Return Error

Return error pressure transmitter must not exceed the maximum permissible error of absolute value.

5.3 Static error

Static differential pressure transmitter errors shall not exceed the maximum permissible error.

5.4 Stability

Pressure (DP) transmitter drift must not exceed the range specified in the instructions.

5.5 Insulation resistance

Insulation resistance of each terminal pressure (DP) transmitter (including housing) should be not less than 20Mohm. Of the terminals is not isolated Do insulation test.

6.1 Environmental conditions

Environmental conditions should be corrected to meet the normal requirements of the instrument, the standard working conditions should be consistent with the site environmental conditions, on-site calibration should be considered due to environmental values deviate from the uncertainty of the impact of the amount shown.

6.2 Staff

Calibration should be qualified and trained personnel hold the appropriate qualifications.