

JJG

INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

JJG 1202-2024

Long Distance Transmissible Pressure Gauges (English Translation)

Issued on: June 14, 2024

Implemented on: December 14, 2024

Issued by: State Administration for Market Regulation

Table of Contents

Introduction (II)	
1 Scope(1)	
2 References(1)	
3 Terminology and units of measurement (1)	
3.1 Terminology (1)	
3.2 Units of measurement(1)	
4 Overview(1)	
5 Metrological performance requirements (2)	
5.1 Indication section (2)	
5.2 Remote transmission part (2)	
6 General technical requirements (3)	
6.1 Appearance(3)	
6.2 Electrical safety requirements (4)	
7 Measuring instrument control (5)	
7.1 Verification conditions (5)	
7.2 Verification Items (6)	
7.3 Verification methods (7)	
7.4 Verification result processing (10)	
7.5 Verification cycle (10)	
Appendix A Remote Pressure Gauge Original Records (11)	
Appendix B Remote Pressure Gauge Calibration Certificate Inner Page Format (13)	
Appendix C Remote Pressure Gauge Calibration Result Notice Inner Page Format (14)	

7.5 Verification cycle (10)

Appendix A Remote Pressure Gauge Original Records (11)	
Appendix B Remote Pressure Gauge Calibration Certificate Inner Page Format (13)	
Appendix C Remote Pressure Gauge Calibration Result Notice Inner Page Format (14)	

Introduction

JJF1001-2011 "General metrological terms and definitions", JJF1002-2010 "National metrological verification procedures Rules", JJF1059.1-2012 "Evaluation and Expression of

Uncertainty in Measurement" and other specifications together constitute the basis for the formulation of this regulation.

A basic series of work specifications.

This regulation was drafted with reference to JJG 52-2013 "Elastic Element General Pressure Gauge, Pressure Vacuum Pressure gauge and vacuum gauge" and JB/T 10203-2000 "Remote pressure gauge", referring to several common remote pressure gauges in China.

The performance parameters and testing methods of the pressure gauge are formulated in combination with the actual domestic usage.

This regulation is published for the first time.

Verification procedures for remote pressure gauges

1 Scope

This regulation is applicable to the initial calibration and subsequent calibration of remote pressure gauges with a pressure measurement range of (-0.1~60)MPa.

Check during use.

2 References

This specification refers to the following documents.

JJG 52-2013 Elastic element general pressure gauge, pressure vacuum gauge and vacuum gauge JB/T 10203-2000 Remote pressure gauge for any referenced document with a date, only the version with the date is applicable to this Regulation; for any referenced document without a date, the latest version (including all amendments) shall apply to this regulation.

3 Terminology and units of measurement

3.1 Terminology

After the pressure signal is converted into an electrical signal, it can be transmitted promptly through the cable to a pressure gauge far away from the pressure measurement point.

[Source. JJF1008-2008, 4.8]

3.1.2 Zero resistance the output resistance value of the potentiometer-type remote pressure gauge when it is connected to the atmosphere.

3.1.3 Full resistance limit resistance the output resistance value of a potentiometer-type remote pressure gauge when the pressure reaches full scale.

3.1.4 span resistance the potentiometer-type remote pressure gauge outputs the difference

in resistance value between the actual zero point and the full scale.

A remote pressure gauge using a sliding wire resistor as a remote signal sensor.

A remote pressure gauge that uses a differential transformer as a sensor for remote signal transmission.

3.2 Units of measurement Remote pressure gauges use legal measurement units, pressure is Pa (Pascal) or its decimal multiples. kPa, MPa, etc.; current is A (ampere); resistance is ohm (ohm).

4 Overview

A remote pressure gauge is a kind of pressure gauge that applies the measured pressure to an elastic sensitive element, which amplifies the pressure through displacement.

The pointer of the mechanism directly indicates the corresponding pressure value on the indexing plate, and can also convert the pressure value into a linear value.

The remote pressure gauge is divided into. remote positive pressure gauge, remote true vacuum gauge,