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

JJF 1716-2018

**Program of Pattern Evaluation of Dust Concentration
Measuring Instruments
(English Translation)**

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Introduction

This syllabus is based on JJF 1015-2014 "General Specification for Type Evaluation of Measuring Instruments", JJF 1016-2014 the preparation guide for the preparation of the type evaluation instrument for measuring instruments is prepared.

The technical indicators of this syllabus are based on the technical regulations such as JJG846-2015 "Dust Concentration Measuring Instrument".

This syllabus is the first release.

Dust concentration measuring instrument type evaluation outline

1 Scope

This type evaluation outline applies to the dust concentration measuring instrument based on the principle of light scattering (hereinafter referred to as "dust meter") Type evaluation.

2 reference files

JJG846-2015 dust concentration measuring instrument GB/T 2423.1-2008 Environmental testing for electric and electronic products - Part 2. Test methods Test A.

Low temperature

GB/T 2423.2-2008 Environmental testing for electric and electronic products - Part 2. Test methods Test B.

high temperature

GB/T 2423.4-2008 Environmental testing of electric and electronic products - Part 2. Test method test Db.

Alternating heat and humidity (12h 12h cycle) GB 3836.1-2010 Explosive atmosphere - Part 1. General requirements for equipment GB 3836.4-2010 Explosive atmospheres - Part 4. Equipment protected by intrinsically safe "i" GB 4208-2008 enclosure protection grade (IP code) for dated references, only dated versions apply to this specification; undated quotations the latest version (including all amendments) applies to this specification.

3 Overview

The dust meter is an instrument for measuring the mass concentration of particles suspended in the air, and can display the concentration value or the output is rich.

Degree signal.

The dust meter is generally composed of a dust concentration conversion component, a sampling head (including a cutter or a separator), an air pump, a power source, the circuit is composed of parts. Some dust meters also have flow meters, sampling time display or settings, sample volume display or settings Structure or function such as setting and signal output.

According to the measurement range, it is divided into high-concentration dust meter [measurement range is generally (10~1000)mg/m³] and low concentration Dust meter [measurement range is generally (0.1~10) mg/m³].

According to the safety performance, it is divided into non-explosion-proof dust meter and explosion-proof type dust meter.

According to the place of use, it is divided into portable dust meter (also known as direct reading dust concentration meter) and fixed dust meter (again Weigh the dust concentration sensor).

The dust meter should identify the key components and materials according to its own characteristics, such as the plastic casing and powder of the explosion-proof dust meter.

Dust detectors, batteries, air pumps, etc.

4 Legal management requirements

4.1 Unit of measurement