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

YC/T 599.3-2026

**Technical specification for measurement of on-line measuring
instrument in cigarette processing - Part 3: temperature
measurements**

(English Translation)

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Foreword

This document conforms to GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting is scheduled.

This document is Part 3 of YC/T 599, "Technical Specification for Online Measuring Instruments in Cigarette Processing". YC/T 599 has already been issued.

The following sections were laid out.

--Part 1: General Provisions;

--Part 2: Belt Scale;

--Part 3: Temperature measuring instruments;

--Part 4: Flow Measuring Instruments Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document is under the jurisdiction of the Cigarette Subcommittee of the National Tobacco Standardization Technical Committee (SAC/TC 144/SC 1).

Introduction

Modern cigarette manufacturing processes utilize numerous online metering instruments to monitor process parameters such as flow rate, temperature, moisture content, and pressure.

Testing is conducted, and the test data forms the basis for designing and adjusting production process parameters, implementing automated production control, and monitoring process quality. YC/T standards are formulated.

599 "Technical Specification for Online Measuring Instruments in Cigarette Processing" is

designed to guide enterprises in comprehensively and systematically conducting measurement of online measuring instruments.

The technical work, YC/T 599, is proposed to consist of five parts.

--Part 1: General Principles. The purpose is to propose general procedures and requirements for online measuring instrument operations, while also outlining key aspects...

Recommended list of line measuring instruments.

--Part 2: Belt Scales. The purpose is to provide technical guidelines for conducting metrological work using belt scales specifically designed for tobacco products.

method.

--Part 3: Temperature Measuring Instruments. The purpose is to provide a basis for conducting metrological work using temperature measuring instruments used online.

According to the technical guidelines and methods.

--Part 4: Flow Metering Instruments. The purpose is to provide a basis for conducting metering work on flow metering instruments used online.

According to the technical guidelines and methods.

method.

The proposed components of YC/T 599 are mainly designed to address prominent issues in current metrology work, in line with the development of online metrology technology.

With the development of the industry and the deepening research on cigarette processing, YC/T 599 will expand its scope and add more sections.

Technical Specifications for Online Measuring Instruments in Cigarette Processing Part 3: Temperature Measuring Instruments

1 Scope

This document specifies the general technical standards for conducting metrological work on temperature measuring instruments used online during cigarette manufacturing.

Guidelines.

This document applies to the measurement work of temperature measuring instruments used online during cigarette processing, mainly including thermocouples and resistance thermometers.

Temperature gauge, temperature transmitter, radiation thermometer.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

JJF 1183-2025 Calibration Specification for Temperature Transmitters JJF 1262-2010 Calibration Specification for Armored Thermocouples JJF 1637-2017 Calibration Specification for Base Metal Thermocouples JJG 160-2007 Standard Platinum Resistance Thermometer JJG 229-2010 Industrial Platinum and Copper Resistance Temperature Detectors JJG 27 (Tobacco) -.2010 Verification Procedure for Online Infrared Thermometers in Tobacco Processing YC/T 599.1-2023 Technical Specification for Online Measuring Instruments in Cigarette Processing - Part 1: General Provisions

3 Terms and Definitions

The terms and definitions defined in YC/T 599.1 and the following terms and definitions apply to this document.

thermocouple

Temperature measurement based on the Seebeck effect consists of a pair of wires made of different materials.

Note: Currently, eight types of "standard thermocouples" are used internationally. Type B, Type E, Type J, Type K, Type N, Type R, Type S, and Type T. Types B, R, and S are...

Noble metal thermocouples, the rest are base metal thermocouples.

[Source. JJF 1007-2007, April 19, modified] 3.2 resistance thermometer A component or instrument that measures temperature by utilizing the property that the resistance of a conductor or semiconductor changes with temperature.

Note: Commonly used resistor materials include platinum, copper, nickel, and semiconductor materials.

[Source. JJF 1007-2007, 4.6] 3.3 temperature transmitter A component that converts temperature variables into a transmittable, standardized DC signal.