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

GB/T 42534.2-2023

**Fluid power - Specification of reference dictionary - Part 2:
Definitions of classes and properties of pneumatics**

流体传动系统及元件 参考词典规范 第2部分：气动产品类与特性的定义

(English Translation)

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---Informative reference documents GB/T 33924 and GB/T 33927 have been added to the

list of value names, and corresponding values have been added to the list of values (see 6.116);

--- GB/T 7940 (all parts), GB/T 8102, GB/T 14038, GB/T 26142 (all parts) have been added to the references points), GB/T 28781, GB/T 32336, GB/T 33636, GB/T 33924, GB/T 33927:

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

Modern business operations (that is, e-commerce, including e-commerce platforms, electronic product catalogs, and product lifecycle management) have the following two aspects Characteristics:

a) The structure of the product life cycle is complex: Each stage of the product life cycle (from initial idea to product development, manufacturing, marketing sale, use and disposal), use information from other stages and generate new information: This information needs to be passed through the data Interfaces are passed and exchanged between partners such as other manufacturers, suppliers and users: Each stage of operation, related parties the transfer of information between is independent of the protocol for data exchange: Once created, these data can be directly used by the operation stage and relevant parties:

b) Availability of new electronic media: In order to effectively utilize the new medium, suppliers need to provide users with clear and unambiguous products information:

Considering the above two aspects, the data information of products and business operation process has the following requirements:

--- Consistency and certainty;

---Neutrality (not targeting specific companies, software and products);

--- Electronic form that can be used directly:

For the field of fluid transmission, this document is formulated based on the following considerations:

a) Existing standards only provide textual definitions of characteristics, but do not provide detailed information for data exchange;

b) Commercial or self-developed software (such as CAD systems, ERP systems, Office tools) have different interfaces and different internal Data forms (such as units of measurement, reference values), data exchange between them requires a multi-directional conversion mechanism, and there is a risk of introducing errors risk, or even impossibility:

Through the standardization and electronicization of data characteristics, the software used

by users can realize data exchange and directly use the data in the transmission process:

according to: The use of standardized data features can improve the comprehensive capabilities of user business processes and enhance IT-based linkages among business partners:

system, thereby shortening product development time and saving costs:

GB/T 42534 "Specification for Reference Dictionary of Fluid Transmission Systems and Components" contains a complete description of fluid transmission products and business operations all relevant properties required for the program, including those that are generic and not specific to "fluid power", as well as specifications or references from other documents characteristic:

For maximum utility, reference dictionaries and their entire contents are often provided electronically for import into user applications Use directly:

GB/T 42534 aims to provide a reference dictionary specification for standardized product characteristics in the field of fluid transmission, and consists of three parts:

--- Part 1: Overview of organizational structure: The purpose is to develop a reference dictionary on standardized product characteristics in the field of fluid power transmission, and Provides the basis for specifying the entire contents of this reference dictionary and its electronic form:

--- Part 2: Definition of pneumatic product categories and characteristics: The purpose is to define the types and characteristics of pneumatic products in the field of fluid transmission systems and components refer to the dictionary specification for the definition of gender:

--- Part 3: Definition of hydraulic product categories and characteristics: The purpose is to define the categories and characteristics of hydraulic products in the field of fluid transmission systems and components refer to the dictionary specification for the definition of gender:

This document provides detailed and effective information to ensure clear and unambiguous electronic data exchange in the field of pneumatic fluid systems business:

Fluid Power Systems and Components Reference Dictionary Specification Part 2: Definition of pneumatic product categories and characteristics

1 Scope

This document, based on ISO 18582-1, specifies a reference dictionary for standardized product categories and characteristics in the field of pneumatic fluid power transmission:

Standardized product characteristics are determined from standardized attributes:

Note: Use the standard code in the identifier, you can use "ISO 18582", you can also use the national standard "GB/T 42534":

2 Normative references the contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references for documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document:

ISO/IEC Guide77-2 Specification guide for product characteristics and classes Part 2: Technical principles and guidelines ISO 13584-42 Industrial automation systems and integrated parts libraries - Part 42: Descriptive methodology: Methodology for constructing part families Note: GB/T 17645.42-2013 Industrial automation system and integrated parts library Part 42: Descriptive methodology: Methodology for constructing part families (ISO 13584-42:2010, IDT)

3 Terms and Definitions the terms and definitions defined in ISO 13584-42 and ISO/IEC Guide77-2 apply to this document:

ISO and IEC maintain terminology databases for standardization at the following addresses:

---International Organization for Standardization: <http://www.iso.org/obp>

4 General principles each property should be defined in the defining class, thus forming the domain of related properties, and can be used in other classes, such as application classes, or directly in the use referenced in the user's system: The entire definition class forms the reference hierarchy for the field of fluid power transmission:

Definitions Class ICS23 Fluid Systems and General Parts, forming part of the Fluid Power Systems Reference Dictionary:

Chapter 5 lists the attribute information of the definition class, Chapter 6 specifies the attribute information of related characteristics, and Chapter 7 lists the related application class (see Appendix A for the application class hierarchy):

Note 1: In addition to the attributes in ISO 18582-1, the tables in Chapters 5 to 7 also contain other attributes, such as: ICS classification:

Note 2: In the "Characteristic Type Classification" in the tables of Chapter 6 and Chapter 7, "Real" means "real number type", "Integer" means "integer type", and "String" means "character type":

String type"; in "value data type", "EXPLICIT" means "explicit", and "CODED" means "code":