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Fluid power — Specification of reference dictionary —

Part 2: Definitions of classes and properties of pneumatics

Transmissions hydrauliques et pneumatiques — Spécification d'un dictionnaire de référence —
Partie 2: Définitions des classes et propriétés relatives aux transmissions pneumatiques

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 131, *Fluid power systems*, Subcommittee SC 1, *Symbols, terminology and classifications*.

A list of all parts in the ISO 18582 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document provides sufficient detail of information required for an unambiguous electronic data exchange for the business area of pneumatic fluid power systems. ISO 5598 provides only terms and definitions for fluid power in general which is not sufficient for electronic data exchange.

Fluid power — Specification of reference dictionary —

Part 2: Definitions of classes and properties of pneumatics

1 Scope

This document specifies a reference dictionary of standardized product properties for the area of pneumatic fluid power on the basis of ISO 18582-1.

The properties are determined on the basis of standardized attributes.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC Guide 77-2, *Guide for specification of product properties and classes — Part 2: Technical principles and guidance*

ISO 13584-42, *Industrial automation systems and integration — Parts library — Part 42: Description methodology: Methodology for structuring parts families*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13584-42 and ISO/IEC Guide 77-2 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

4 General principles

Each property shall be defined in a particular definition class, which defines the domain of all properties specified therein. Once defined (in their definition class) the properties can be referenced, i.e. used, in other classes, e.g. in (standardized) application classes or immediately in a user's system. The entirety of definition classes makes up the ISO/TC 131 reference hierarchy.

The definition class ICS 23, fluid systems and components for general use, form part of the reference dictionary for fluid power systems.

The attribute information for the definition class is given in Clause 5. The attribute information for their associated properties is specified in Clause 6. The application classes are given in Clause 7 (see also Annex A).

NOTE There are additional attributes to those of the ones of ISO 18582-1 in the tables in Clauses 5, 6 and 7, e.g. ICS.

5 Definition class: fluid systems and components for general use, 18582#KAA001-001-001

Hierarchy	Definition class
Identifier [Information supplier-Code-Version-Revision]	18582#KAA001-001-001
Preferred name	**23 fluid systems and components for general use**
Short name	fluid systems
Synonymous name	
Definition	ICS class of fluid systems and components for general use
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS.
Applicable properties	
Figure	
Classification to ICS	23.000
Its superclass	
Preferred name of superclass	
Keyword	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60
Date of original Definition	2018
Date of current version	2018
Date of current Revision	

6 Properties

6.1 18582#KAA002-001-001: initial value of pressure measuring range

Hierarchy	Properties
Identifier [Information supplier-Code-Version-Revision]	**18582#KAA002-001-001**
Preferred name	**initial value of pressure measuring range**

Hierarchy	Properties
Short name	
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition	lower limit of the range of values for a measured variable for which the measurement deviations of a measuring device must remain within defined limits
Source document of definition	
Note	NOTE 1 The measuring range is specified by the initial value and the final value. The difference between the final and initial values is called the measuring span. NOTE 2 The output range is the range of all those values that can be provided by the measuring device as its output. The indicating range is the output range on measuring devices with displays. The term nominal range for the output range should be avoided. (This term is not uniformly used and can also mean "measuring range" or "range of nominal values".) According to DIN 1319-1.
Remark	UN ECE code for unit: BAR IEC classification: K15
Formula	
Unit of measure	bar
Alternative unit	
Type of property **D = dependent; N = non-dependent;** **C = condition**	N
Depends on	
Domain	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Figure	
Classification to ICS	23.000
Definition class	18582#KAA001-001-001
Preferred name of definition class	23 fluid systems and components for general use
Status	60.60 - International Standard published
Date of original Definition	
Date of current version	
Date of current Revision	

6.2 18582#KAA003-001-001: shifting-on time

Hierarchy	Properties
Identifier [Information supplier-Code-Version-Revision]	**18582#KAA003-001-001**
Preferred name	**shifting on-time**
Short name	
Synonymous name	switch on-time
Preferred symbol	
Synonymous symbol	
Definition	length of time that elapses between the control signal (electric or pneumatic) being applied and the pressure increasing at the respective valve output until 10 % of the defined operating pressure is reached
Source document of definition	Based on ISO 12238:2001
Note	NOTE Only a pressure sensor is connected to the valve output.
Remark	UN ECE code for unit: C26 IEC classification: T07
Formula	
Unit of measure	ms
Alternative unit	
Type of property **D = dependent; N = non-dependent;** **C = condition**	N
Depends on	
Domain	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Figure	
Classification to ICS	23.000
Definition class	18582#KAA001-001-001
Preferred name of definition class	23 fluid systems and components for general use
Status	60.60 - International Standard published
Date of original Definition	
Date of current version	
Date of current Revision	

6.3 18582#KAA004-001-001: condensate drain connection

Hierarchy	Properties
Identifier [Information supplier-Code-Version-Revision]	**18582#KAA004-001-001**
Preferred name	**condensate drain connection**
Short name	
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition	type of connection for draining condensate
Source document of definition	
Note	
Remark	IEC classification: A56
Formula	
Unit of measure	
Alternative unit	
Type of property **D = dependent; N = non-dependent;** **C = condition**	N
Depends on	
Domain	
Property type classification	String
Value specification	EXPLICIT
List of values	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

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