TECHNICAL SPECIFICATION

ISO/TS 15926-4

First edition
2007-10-01
AMENDMENT 1
2010-12-15

Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities —

Part 4:
Initial reference data

AMENDMENT 1

Systèmes d'automatisation industrielle et intégration — Intégration de données de cycle de vie pour les industries de «process», y compris les usines de production de pétrole et de gaz

Partie 4: Données de référence initiales

AMENDEMENT 1

iTeh STANDARD PREVIEW

(standards.iteh.ai)

ISO/TS 15926-4:2007/Amd 1:2010
https://standards.iteh.ai/catalog/standards/sist/655bebb3-16fc-47a6-99c7-
a2aa8b839a84/iso-ts-15926-4-2007-amd-1-2010

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of normative document:

— an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;

— an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to ISO/TS 15926-4:2007 was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 4, *Industrial data*.

ISO 15926 is organized as a series of parts, each published separately. The structure of ISO 15926 is described in ISO 15926-1.

Each part of ISO 15926 is a member of the following series: data model, reference data, implementation methods, conformance testing methodology and framework, characterization methods, abstract test suites.

This part is a member of the reference data series.

A complete list of parts of ISO 15926 is available from the Internet:

<http://www.tc184-sc4.org/titles/OIL_GAS_Titles.htm>

Amendment 1 to ISO/TS 15926-4:2007 has the following purposes:

— to add the set of reference data items for rotating equipment;

— to add a numeric identifier for each reference data item;

— to add URIs for each reference data item;

— to add synonyms for reference data items;

— to correct errors in the spreadsheet for units of measure;

— to add a copyright statement for the sets of data items.

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Industrial automation systems and integration — Integration of life-cycle data for process plants including oil and gas production facilities —

Part 4:
Initial reference data

AMENDMENT 1

Page v, Foreword

Update the information on the list of parts of ISO 15926. Replace the eighth, ninth and tenth paragraphs with the following:

ISO 15926 is organized as a series of parts, each published separately. The structure of ISO 15926 is described in ISO 15926-1.

Each part of ISO 15926 is a member of the following series: data model, reference data, implementation methods, conformance testing methodology and framework, characterization methods, abstract test suites.

This part is a member of the reference data series.

A complete list of parts of ISO 15926 is available from the Internet:

<http://www.tc184-sc4.org/titles/OIL_GAS_Titles.htm>

Page vi, Introduction

Add the rotating equipment set, which was omitted from the sets of reference data items. Add the following notes immediately after the second paragraph:

NOTE 1   ICAAMC (International Compressed Air and Allied Machinery Committee) is the source for some reference data items.

NOTE 2   IEV (International Electrotechnical Vocabulary) is the source for some reference data items.

Update the information on the structure of ISO 15926. Replace the third paragraph with the following:

The structure of ISO 15926 is as follows:

— ISO 15926-1 provides an overview of ISO 15926;

— ISO 15926-2 contains a generic, conceptual data model that supports representation of all life-cycle aspects of a process plant;

— ISO/TS 15926-3 contains a reference data library for geometry and topology;

— ISO/TS 15926-4 contains a reference data library for physical objects, activities, properties and other reference data necessary to record information about a process plant;

— ISO/TS 15926-6[1] specifies the information that is recorded for reference data items of ISO/TS 15926-4;

— ISO/TS 15926-7[2] specifies implementation methods for the integration of distributed systems;

— ISO/TS 15926-8[2] specifies an OWL implementation for ISO 15926;

— ISO/TS 15926-9[3] specifies facades for ISO 15926;

— ISO/TS 15926-10[3] specifies abstract test methods for ISO 15926.

Page 2, Clause 2 Normative references

Update the information on the normative references. Replace the first referenced document with the following:

ISO/IEC 8824-1, *Information technology — Abstract Syntax Notation One (ASN.1) — Part 1: Specification of basic notation*

Page 4, 3.4 Abbreviated terms

Add URIs for each reference data item. Add the rotating equipment set, which was omitted from the sets of reference data items. Add the following abbreviations:

URI   Uniform Resource Identifier

ICAAMC   International Compressed Air and Allied Machinery Committee

IEV   International Electrotechnical Vocabulary

Page 5, 4.1 Sets of reference data items

Add the rotating equipment set, which was omitted from the sets of reference data items. Add the following row to Table 1:

rotating equipment	rotating equipment, including pumps, compressors, expanders and mixers

Page 5, 4.2 Representation of the reference data

Add a copyright statement for the sets of data items. Add the following copyright statement:

The following copyright statement applies to each set of reference data items, and is included within the representation of each set of data items.

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1) Planned.

2) To be published.

3) Under preparation.

Page 6, 4.3 The URLs for the sets of reference data items

Add the rotating equipment set, which was omitted from the sets of reference data items. Add the following row to Table 2:

rotating equipment	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/rotating_equipment.xls

Add the file with URI http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/rotating_equipment.xls to the set of electronic inserts that is part of this part of ISO/TS 15926.

Add a numeric identifier for each reference data item. Add URIs for each reference data item. Change the references to files in Table 2 to amended files which contain URIs and numeric identifiers, so that the amended Table 2 is as follows:

Table 2 — URLs of the sets of reference data items

name of set	URL of set
activity	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/activity.xls
basics	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/basics.xls
class of class	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/class_of_class.xls
connection material	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/connection_material.xls
electrical	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/electrical.xls
encoded information	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/encoded_information.xls

control function	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/control_function.xls
heat transfer	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/heat_transfer.xls
information	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/information.xls
instrumentation	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/instrumentation.xls
ISO 15926-2 superclasses	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/iso15926-2_superclasses.xls
piping	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/piping.xls
property	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/property.xls
protection	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/protection.xls
rotating equipment	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/rotating_equipment.xls
solid handling	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/solid_handling.xls
static equipment	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/static_equipment.xls
transport	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/transport.xls
uom	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/uom.xls
valve	http://standards.tc184-sc4.org/iso/ts/15926/-4/ed-1/v1-amd1/tech/reference-data/valve.xls

Page 6, 4.4 Numeric identifiers for reference data items

Add a numeric identifier for each reference data item. Add the following new clause:

Each reference data item within this part of ISO 15926 has a numeric identifier. The numeric identifier is an integer greater than or equal to 1.

NOTE   Each reference data item is assigned an HTTP URI with a fragment identifier generated from the numeric identifier, as described in Clause 4.5.

Page 6, 4.5 URIs for reference data items

Add URIs for each reference data item. Add the following new clause:

Each reference data item within this part of ISO 15926 has three URIs.

The URIs are included in the Excel spreadsheets specified by Clause 4.3.

NOTE 1   Different user communities prefer different types of URI, so different alternatives are provided.

The three URIs are as follows:

a)   an HTTP URI which contains a fragment identifier which consists principally of a number;

b)   a URN;

c)   an HTTP URI which does not include a fragment identifier and which contains a final component consisting of text derived from the unique name.

EXAMPLE   The three URIs assigned to the heat transfer class "heat exchanger" are:

a)   http://standards.tc184-sc4.org/iso/15926/tech/reference-data#RDL3789

b)   urn:iso:std:iso:15926:tech:reference-data:heat_exchanger

c)   http://standards.tc184-sc4.org/iso/15926/tech/reference-data/heat_exchanger

Each URI of type (1) has:

⸺   the primary resource:

http://standards.tc184-sc4.org/iso/15926/tech/reference-data

⸺   a fragment ID that consists of:

"RDL" followed by the numeric identifier of the reference data item as decimal.

NOTE 2   The HTTP URIs assigned to reference data items by this part of ISO 15926 are not dereferenceable.

NOTE 3   The URIs assigned to reference data items by this part of ISO 15926 specify neither the part nor the edition of the standard. This is because a URI assigned to a reference data item does not change with edition.

The URI of type (2) can be a URN of any form.

NOTE 4   This part of ISO 15926 can use a URN assigned by another standard.

The URI of type (3) can be an HTTP URI of any form.

NOTE 5   This part of ISO 15926 can use an HTTP URI assigned by another standard.

Page 7, Annex A

Update the Information Object registration for the amended document. Replace the object identifier by:

{iso standard 15926 part(4) version (2)}

Page 8, Annex B

Update the URN for the amended document. Replace the document URN by:

urn:iso:std:iso:ts:15926:-4:ed-1:v1-amd1

Add the rotating equipment set, which was omitted from the sets of reference data items. Add the following row to Table B.1:

| rotating equipment | urn:iso:std:iso:ts:15926:-4:ed-1:v1-amd1:tech:reference-data:rotating_equipment |