IEC 62026-2

Edition 2.1 2019-07
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Low-voltage switchgear and controlgear – Controller-device interfaces (CDIs) – Part 2: Actuator sensor interface (AS-i)

Appareillage à basse tension – Interfaces appareil de commande-appareil (CDI) – Partie 2: Interface capteur-actionneur (AS-i)

IEC 62026-2:2008-01+AMD1:2019-07 CSV(en-fr)

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LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – CONTROLLER-DEVICE INTERFACES (CDIs) –

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FOREWORD

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This consolidated version of the official IEC Standard and its amendment has been prepared for user convenience.

IEC 62026-2 edition 2.1 contains the second edition (2008-01) [documents 17B/1579/FDIS and 17B/1584/RVD] and its amendment 1 (2019-07) [documents 121A/297/FDIS and 121A/304/RVD].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendment 1. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 62026-2 has been prepared by subcommittee 17B: Low-voltage switchgear and controlgear, of IEC technical committee 17: Switchgear and controlgear.

This second edition constitutes a technical revision.

The main changes with respect to the previous edition are listed below:

- doubling the number of slaves from 31 to 62 by introduction of sub-addresses;
- introduction of AS-I safety system.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62026 series, under the general title *Low-voltage switchgear and controlgear – Controller-device interfaces (CDIs)*, can be found on the IEC website.

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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- replaced by a revised edition, or
- amended.

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LOW-VOLTAGE SWITCHGEAR AND CONTROLGEAR – CONTROLLER-DEVICE INTERFACES (CDIs) –

Part 2: Actuator sensor interface (AS-i)

1 Scope and object

This part of IEC 62026 specifies a method for communication between a single control device and switching elements, and establishes a system for the interoperability of components with the specified communication interfaces. The complete system is called “Actuator Sensor interface (AS-i)”.

This standard describes a method for connecting switching elements, such as low-voltage switchgear and controlgear, standardized within IEC 60947, and controlling devices. The method may also be applied for connecting other devices and elements.

Where inputs and outputs I/O are described in this standard, their meaning is regarding the master, the meaning regarding the application is the opposite.

The object of this standard is to specify the following requirements for control circuit devices and switching elements:

– requirements for a transmission system and for interfaces between a slave, a master and electromechanical structures;

– requirements for a complete interoperability of different devices within any network, when meeting this standard;

– requirements for an interchangeability of devices within a network, when fulfilling the profiles of this standard;

– normal service conditions for the slaves, electromechanical devices and master;

– constructional and performance requirements;

– tests to verify conformance to requirements.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60068-2-6~~:1995~~, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-27~~:1987~~, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60204-1:~~2005~~2016, *Safety of machinery – Electrical equipment of machines – Part 1: General requirements*

IEC 60227-2:1997, *Polyvinyl chloride insulated cables of rated voltages up to and including 450/750 V – Part 2: Test methods*
Amendment 1 (2003)

IEC 60228:2004, *Conductors of insulated cables*

IEC 60304:1982, *Standard colours for insulation for low-frequency cables and wires*

IEC 60352-6:1997, *Solderless connections – Part 6: Insulation piercing connections – General requirements, test methods and practical guidance*

IEC 60364-4-41~~:2005~~, *Low-voltage electrical installations – Part 4-41: Protection for safety – Protection against electric shock*

IEC 60529~~:1989~~, *Degrees of protection provided by enclosures (IP code)*
~~Amendment 1 (1999)~~

IEC 60947-1:2007, *Low-voltage switchgear and controlgear – Part 1: General rules*
IEC 60947-1:2007/AMD1:2010

IEC 60947-4-1:~~2000~~2018, *Low-voltage switchgear and controlgear – Part 4-1: Contactors and motor-starters – Electromechanical contactors and motor-starters*
~~Amendment 1 (2002)~~
~~Amendment 2 (2005)~~

IEC 60947-4-2:~~1999~~2011, *Low-voltage switchgear and controlgear – Part 4-2: Contactors and motor-starters – AC semiconductor motor controllers and starters*
~~Amendment 1 (2001)~~
~~Amendment 2 (2006)~~

IEC 60947-5-2:~~1997~~2007, *Low-voltage switchgear and controlgear – Part 5-2: Control circuit devices and switching elements – Proximity switches*
~~Amendment 1 (1999)~~
~~Amendment 2 (2003)~~
IEC 60947-5-2:2007/AMD1:2012

IEC 61000-4-2:~~1995~~2008, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test*
~~Amendment 1 (1998)~~
~~Amendment 2 (2000)~~

IEC 61000-4-3:2006, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*
IEC 61000-4-3:2006/AMD1:2007
IEC 61000-4-3:2006/AMD2:2010

IEC 61000-4-4:~~2004~~2012, *Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test*

IEC 61000-4-6:2013, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields*

IEC 61131-2~~:2007~~, *Industrial-process measurement and control – Programmable controllers – Part 2: Equipment requirements and tests*

IEC 61140~~:2001~~, *Protection against electric shock – Common aspects for installation and equipment*
~~Amendment 1 (2004)~~

IEC 61508 (all parts), *Functional safety of electrical/electronic/programmable electronic safety-related systems*