

INTERNATIONAL STANDARD

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**Power sources for a wireless communication device
Part 1: General requirements of power modules**

**Sources d'énergie pour un appareil de communication sans fil –
Partie 1: Exigences générales relatives aux modules d'alimentation**



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POWER SOURCES FOR A WIRELESS COMMUNICATION DEVICE –**Part 1: General requirements of power modules**

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International Standard IEC 62952-1 has been prepared by subcommittee 65B: Measurement and control devices, of IEC technical committee 65: Industrial-process measurement, control and automation.

This International Standard is based on VDI/VDE 2185 Blatt 3.

The text of this standard is based on the following documents:

FDIS	Report on voting
65B/1053/FDIS	65B/1056/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

A list of all parts of the IEC 62952 series, published under the general title *Power source for a wireless communication device*, can be found on the IEC website.

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

The committee has decided that the contents of this publication 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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INTRODUCTION

Industrial wireless communication network devices like a pressure transmitter or a valve positioner are mostly using non-copper-cable power sources. These devices are using a power module for their power source that can contain a battery and / or an energy harvesting element. In order to increase usability, power source of wireless sensors and actuators require a standardized interface and harmonized requirements.

This part of IEC 62952 specifies interface and specification of power source of wireless devices and does not specify the mechanical interface within a wireless communication device and the power source. Additionally, energy harvesting is a key technology for power source of wireless devices. This document also specifies interface and specification of energy harvesting devices.

This document addresses the general requirements of power sources for wireless communication devices.

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POWER SOURCES FOR A WIRELESS COMMUNICATION DEVICE –

Part 1: General requirements of power modules

1 Scope

This part of IEC 62952 specifies the general requirements of power modules for wireless communication devices (WCD). This document includes additional optional specifications to permit use in explosive atmospheres and harsh environments.

This document specifies the usability over the life-cycle of a power module including replacing in explosive atmosphere. Unreplaceable batteries such as memory backup are out of the scope of this standard.

Secondary batteries or power modules are covered by this document, but method of its power charging is out of scope.

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.

IEC 60079-0:2011, *Explosive atmospheres – Part 0: Equipment – General requirements*

IEC 60079-11:2011, *Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"*

IEC 60086-1, *Primary batteries – Part 1: General*

IEC 60654-3, *Operating conditions for industrial-process measurement and control equipment – Part 3: Mechanical influences*

IEC 60721-3-4:1995, *Classification of environmental conditions – Part 3: Classification of groups of environmental parameters and their severities – Section 4: Stationary use at non-weatherprotected locations*

IEC 61326 (all parts), *Electrical equipment for measurement, control and laboratory use – EMC requirements*

IEC 62952-2:2016, *Power sources for a wireless communication device – Part-2: Profile for power modules with batteries*

IEC 62952-3: —1, *Power sources for a wireless communication device – Part-3: Generic energy harvesting adapter module*

¹ Under preparation. Stage at the time of publication: IEC/CDV:2016.