



BSI Standards Publication

# Industrial-process measurement, control and automation – Smart manufacturing

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Part 1: Terms and definitions

## National foreword

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A list of organizations represented on this committee can be obtained on request to its committee manager.

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# TECHNICAL REPORT

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**Industrial-process measurement, control and automation – Smart  
manufacturing –  
Part 1: Terms and definitions**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**INDUSTRIAL-PROCESS MEASUREMENT,  
CONTROL AND AUTOMATION –  
SMART MANUFACTURING –**
**Part 1: Terms and definitions****FOREWORD**

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The text of this Technical Report is based on the following documents:

Draft	Report on voting
65/863/DTR	65/904/RVDTR

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

The language used for the development of this Technical Report is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at [www.iec.ch/standardsdev/publications](http://www.iec.ch/standardsdev/publications).

A list of all parts in the IEC 63283 series, published under the general title *Industrial-process measurement, control and automation – Smart manufacturing*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](http://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## INTRODUCTION

This document presents a vocabulary for terms that can become relevant within the scope of Smart Manufacturing. It is not intended to be a vocabulary for Smart Manufacturing, but it includes more than the terms from the other parts of this series.

# INDUSTRIAL-PROCESS MEASUREMENT, CONTROL AND AUTOMATION – SMART MANUFACTURING –

## Part 1: Terms and definitions

### 1 Scope

The scope of this document is to compile a comprehensive collection of base terminology with compatible terms that can become relevant within the scope of Smart Manufacturing. Most of these terms refer to existing definitions in the domain of industrial-process measurement, control and automation and its various subdomains. When multiple similar definitions exist for the exact same term in different standards, this document contains only the preferred definition in the context of Smart Manufacturing. Whenever the existing definitions are not compatible with other terms in this document or when the definition does not fit into the broader scope of Smart Manufacturing, new or modified definitions are given.

### 2 Normative references

There are no normative references in this document.

### 3 Terms, definitions and abbreviated terms

#### 3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

##### 3.1.1

##### **<X> template**

specification of the common features of a collection of <X>s in sufficient detail that an <X> can be instantiated using it in its appropriate context

Note 1 to entry: <X> can be anything that has a type.

[SOURCE: ISO 15745-1:2003, 3.33, modified – "in its appropriate context" added to definition]

##### 3.1.2

##### **access**

ability and means to communicate with or otherwise interact with a system in order to use system resources

Note 1 to entry: Access may involve physical access (authorization to be allowed physically in an area, possession of a physical key lock, PIN code, or access card or biometric attributes that allow access) or logical access (authorization to log in to a system and application, through a combination of logical and physical means).

[SOURCE: IEC TS 62443-1-1:2009, 3.2.1]