

TECHNICAL REFERENCE

**Automation systems and integration — Key
performance indicators (KPIs) for
manufacturing operations management**

– Part 10: Operational sequence description of data
acquisition

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- Part 10: Operational sequence description of data acquisition

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SESTO Robotics Pte Ltd
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National Foreword

This Technical Reference (TR) was prepared by the Working Group on Smart Manufacturing Readiness Level set up by the Technical Committee on Smart Manufacturing under the purview of MSC.

This TR is identical with ISO/TR 22400-10:2018, “Automation systems and integration – Key performance indicators (KPIs) for manufacturing operations management – Part 10: Operational sequence description of data acquisition” published by the International Organization for Standardization.

NOTE 1 – Reference to International Standards are replaced by applicable Singapore Standards and Technical References.

NOTE 2 – Where numerical values are expressed as decimals, the comma is read as a full point.

This TR is a provisional standard made available for application over a period of three years. The aim is to use the experience gained to update the TR so that it can be adopted as a Singapore Standard. Users of the TR are invited to provide feedback on its technical content, clarity and ease of use. Feedback can be submitted using the form provided in the TR. At the end of the three years, the TR will be reviewed, taking into account any feedback or other considerations, to further its development into a Singapore Standard if found suitable.

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1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as “Mature Standards”. Mature Standards will not be subject to further review, unless there are requests to review such standards.*
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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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This document was prepared by Technical Committee ISO/TC 184, *Automation systems and integration*, Subcommittee SC 5, *Interoperability, integration, and architectures for enterprise systems and automation applications*.

A list of all parts in the ISO 22400 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 describes the procedure for the determination of key performance indicators (KPIs) by means of examples. The KPIs that are used are given in ISO 22400-2.

Automation and systems integration — Key performance indicators (KPIs) for manufacturing operations management — Part 10: Operational sequence description of data acquisition

1 Scope

This document contains descriptions for the practical use for applying formulae as specified in ISO 22400-2 for key performance indicators for production control and monitoring. This document is intended to be applied in conjunction with the content of ISO 22400-2.

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 22400-2:2014, *Automation systems and integration — Key performance indicators (KPIs) for manufacturing operations management — Part 2: Definitions and descriptions*