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Australian Standard®

Telecontrol equipment and systems

Part 5.4: Transmission protocols—Definition and coding of application information elements

[IEC title: Telecontrol equipment and systems, Part 5: Transmission protocols—Section 4: Definition and coding of application information elements]

This Australian Standard was prepared by Committee IT/24, Supervisory Control and Data Acquisition. It was approved on behalf of the Council of Standards Australia on 5 January 1998 and published on 5 April 1998.

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PREFACE

This Standard was prepared by the Standards Australia Committee IT/24, Supervisory Control and Data Acquisition.

The Standard is identical with and has been reproduced from IEC 60870-5-4:1993, *Telecontrol equipment and systems*, Part 5: *Transmission protocols*, Section 4: *Definition and coding of application information elements*.

IEC has decided to apply a new numbering system, the 60000 series, to all its existing and future publications, including amendments to existing Standards. As a consequence, IEC has modified the bibliographic references in its databases to accord with the new numbering system. All IEC publications issued since the beginning of 1997 will carry references in terms of the 60000 series numbering. Publications printed earlier than 1997 will continue to carry the old series of numbers. For example, a reference to the IEC 60870 series of Standards will be to IEC 870 if the current edition of the Standard was printed prior to 1997.

This Standard is identical with a pre-1997 document therefore it uses the old series of numbers.

The objective of this Standard is to provide manufacturers and users of telecontrol equipment and systems with the specification for information elements in order to achieve system interoperability within Australia.

As this Standard is reproduced from an international Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) In the source text 'this International Standard' should read 'this Australian Standard'.

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The references to international Standards should be replaced by references to the following Australian Standards:

Reference to International Standard or other publication		*Australian or Joint Australian/New Zealand Standard*	
IEC		AS	
50	International Electrotechnical Vocabulary (IEV)	1852	International Electrotechnical Vocabulary
50(371)	Chapter 371: Telecontrol	1852.371	Part: 371: Telecontrol
870	Telecontrol equipment and systems	60870	Telecontrol equipment and systems
870-1-1	Part 1: General considerations—Section One: General principles	60870.1.1	Part 1.1: General considerations—General principles
870-1-3	Part 1: General considerations—Section Three: Glossary	60870.1.3	Part 1.3: General considerations—Glossary
870-5-3	Part 5: Transmission protocols—Section Three: General structure of application data	60870.5.3	Part 5.3: Transmission protocols—General structure of application data
ISO/IEC		AS/NZS	
10000	Information technology—Framework and taxonomy of international standardized profiles	3966	Information technology—Framework and taxonomy of international standardized profiles
10000-1	Part 1: Framework	3966.1	Part 1: Framework

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INTRODUCTION

This Section of IEC 870-5 defines standard declaration rules for application data in telecontrol systems.

1 Scope and object

This section of IEC 870-5 applies to telecontrol equipment and systems with coded bit serial data transmission for monitoring and controlling geographically widespread processes.

This section of IEC 870-5 gives rules for defining information elements and presents a set of information elements, in particular of digital and analog process variables, that are frequently used in telecontrol applications.

Clause 4 presents syntactic rules for defining application specific information elements. These rules comprise methods for semantic declarations, that is assignments of the functional interpretation of the defined information fields.

Clause 5 applies the declaration method to the basic data types defined in Clause 4 and introduces particular subtypes of data.

Clause 6 presents a set of information elements that are frequently used in telecontrol applications. These elements and the mentioned recommended applications for these elements are recommendations only. Definitive declarations of information elements have to be fixed in application profiles.

Single information elements, sequences or combinations of information elements may form an information object that is identified by an object address and by an object structures specification described in IEC 870-5-3.