

AS 60870.3—1998
IEC 60870-3:1989

Australian Standard[®]

Telecontrol equipment and systems

**Part 3: Interfaces
(electrical characteristics)**

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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**Part 3: Interfaces
(electrical characteristics)**

First published as AS 60870.3—1998.

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 60870-3:1989, *Telecontrol equipment and systems, Part 3: Interfaces (electrical characteristics)*.

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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 a specification of the electrical interface characteristics in order to achieve interworking at the interface between equipment used in Australia.

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AUSTRALIAN STANDARD

TELECONTROL EQUIPMENT AND SYSTEMS

Part 3: Interfaces (electrical characteristics)

1 Scope

This series of standards applies to telecontrol equipment and systems with coded bit serial data transmission for monitoring and controlling geographically widespread processes.

2 Object

This part defines electrical interface characteristics (e.g. signals, impedances, etc.) which have to be met at the shared boundaries (see figure 1) between:

- telecontrol equipment and external equipment connected to:
 - process equipment (e.g. sensors, actuators);
 - operator's equipment;
- telecontrol equipment and transmission line (channel) where "data circuit terminating equipment" (i.e. DCE-MODEM) is packaged as an integral part of the telecontrol equipment, or telecontrol equipment and "data circuit terminating equipment", where the latter is not packaged as an integral part of the telecontrol equipment;
- different parts of the equipment within the telecontrol system and other data processing equipment.

The interfaces shall be defined independently from the functional layout of the system or its subsystems.

Information in this part refers only to operating conditions.

The following subjects are outside the object of this part:

- interface between external power source and the telecontrol equipment;
- logical interfaces and interface protocols;
- interface testing conditions and procedures.

3 Types of information

Two basic types of information are presented to the interfaces: digital and analog. Both types are conveyed over the interfaces by means of signals which are in parallel, serial or stand alone form.