



**Electricity metering equipment (a.c.)—  
Particular requirements**

**Part 31: Pulse output devices for  
electromechanical and electronic meters  
(two wires only)**



AS IEC 62053.31:2018

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- Australian Chamber of Commerce and Industry
- Australian Energy Council
- Australian Energy Market Operator
- Australian Industry Group
- Consumers Federation of Australia
- Electrical Regulatory Authorities Council
- Energy Networks Australia
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### **Part 31: Pulse output devices for electromechanical and electronic meters (two wires only)**

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## Preface

This Standard was prepared by the Standards Australia Committee EL-011, Electricity Metering Equipment.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to describe the characteristics of passive, two-wire, externally powered pulse output devices to be used in electricity meters as defined by the relevant standards of technical committee EL-011 as well as future standards for static VA-hour meters. Such pulse output devices are used to transmit pulses to a receiver (e.g. a tariff device).

This Standard is identical with, and has been reproduced from, IEC 62053-31:1998, *Electricity metering equipment (a.c.) — Particular requirements — Part 31: Pulse output devices for electromechanical and electronic meters (two wires only)*.

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The terms 'normative' and 'informative' are used in Standards to define the application of the appendices or annexes to which they apply. A 'normative' appendix or annex is an integral part of a Standard, whereas an 'informative' appendix or annex is only for information and guidance.

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**ELECTRICITY METERING EQUIPMENT (AC) –  
PARTICULAR REQUIREMENTS –**
**Part 31: Pulse output devices for electromechanical  
and electronic meters (two wires only)**

## FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization, comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62053-31 has been prepared by IEC technical committee 13: Equipment for electrical energy measurement and load control.

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

| FDIS         | Report on voting |
|--------------|------------------|
| 13/1134/FDIS | 13/1142/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.

Annexes A, B and C form an integral part of this standard.

Annexes D, E and F are for information only.

## INTRODUCTION

This International Standard has been prepared to complete the existing standards on electric energy meters with a standard for integrated pulse output devices.

This standard specifies a class A and class B pulse output device. For special applications see annex E.

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## ELECTRICITY METERING EQUIPMENT (AC) – PARTICULAR REQUIREMENTS –

### Part 31: Pulse output devices for electromechanical and electronic meters (two wires only)

#### 1 Scope

This part of IEC 62053 is applicable to passive, two-wire, externally powered pulse output devices to be used in electricity meters as defined by the relevant standards of technical committee 13 (see normative references) as well as future standards for static VA-hour meters.

Such pulse output devices are used to transmit pulses, representing a finite energy quantity, to a receiver (e.g. a tariff device).

#### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of IEC 62053. At the time of publication, the editions indicated were valid. All normative documents are subject to revision, and parties to agreements based on this part of IEC 62053 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60145:1963, *Var-hour (reactive energy) meters*

IEC 60381-1:1982, *Analogue signal for process control systems – Part 1: Direct current signals*

IEC 60521:1988, *Classes 0,5 S and 2 alternating-current watt-hour meters*

IEC 60687:1992, *Alternating current static watt-hour meters for active energy (classes 0,2 S and 0,5 S)*

IEC 61036:1996, *Alternating current static watt-hour meters for active energy (classes 1 and 2)*

IEC 61268:1995, *Alternating current static var-hour meters for reactive energy (classes 2 and 3)*

IEC 61390:1997, *Static electric energy meters – Power consumption and voltage requirements – Multi-energy and multi-function meters*