AS/NZS ISO/IEC 29125:2012
ISO/IEC TR 29125:2010

AS/NZS ISO/IEC 29125:2012

Australian/New Zealand Standard™

Telecommunications cabling requirements for remote powering of data terminal equipment

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CT-001, Communications Cabling. It was approved on behalf of the Council of Standards Australia on 15 June 2011 and on behalf of the Council of Standards New Zealand on 10 February 2012.
This Standard was published on 27 February 2012.

The following are represented on Committee CT-001:

Australian Chamber of Commerce and Industry
Australian Communications and Electrical Alliance
Australian Communications and Media Authority
Australian Industry Group
Australian Information Industry Association
Australian Telecommunications Users Group
BICSI Australia
Communications Alliance
Consulting Interests, New Zealand
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This Standard was issued in draft form for comment as DR AS/NZS ISO/IEC 29125.

Australian/New Zealand Standard™

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First published as AS/NZS ISO/IEC 29125:2012.

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ISBN 978 1 74342 039 3

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-001, Communications Cabling.

The objectives of this Standard are as follows:

(a) Target the support of applications that provide remote power over balanced cabling to terminal equipment.

(b) Cover the transmission and electrical parameters needed to support remote power over balanced cabling.

(c) Cover various installation scenarios and how these may impact the capability of balanced cabling to support remote powering.

(d) Specify design and configuration of cabling as specified in International Standards ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24702 and ISO/IEC 24764.

(e) Provides requirement and guidelines that will enable the support of a wide variety of extra low voltage (ELV) limited power source (LPS) applications using remote power supplied over balanced cabling.

This Standard is identical with, and has been reproduced from ISO/IEC TR 29125:2010, *Information technology—Telecommunications cabling requirements for remote powering of data terminal equipment.*

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

(i) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(ii) In the source text ‘this Technical Report’ should read ‘this Australian/New Zealand Standard’.

(iii) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard ISO/IEC		*Australian/New Zealand Standard* AS/NZS	
15018	Information technology—Generic cabling for homes	15018	Information technology—Generic cabling for homes
24702	Information technology—Generic cabling—Industrial premises	24702	Information technology—Generic cabling—Industrial premises

Only international references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

CONTENTS

INTRODUCTION

This Technical Report specifies the use of generic balanced cabling for customer premises, as specified in international standards ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24702 and ISO/IEC 24764, for remote powering of terminal equipment. It provides guidance on new cabling installations and renovations. The customer premises may encompass one or more buildings or may be within a building that contains more than one organisation. The cabling may be installed prior to the selection of remote powering equipment or powered terminal equipment.

International standards ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24702 and ISO/IEC 24764 specify a structure and performance requirements for cabling subsystems that support a wide range of applications. They provide appropriate equipment interfaces to the cabling infrastructure in equipment rooms, telecommunications rooms and work areas.

A growing number of organisations employ equipment at locations that require the provision of remote powering. This Technical Report was created to provide supplementary information to ISO/IEC 11801 to implement remote powering over generic balanced cabling as specified in ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24702 and ISO/IEC 24764.

This Technical Report provides additional guidance for remote powering on the use of balanced cabling systems as specified in ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24702 and ISO/IEC 24764 guidance on different installation conditions that require special considerations;

- information to bring together all the considerations about remote powering in a single document,
- guidance on mating and unmating of connectors that convey remote power.

This Technical Report does not include requirements from national or local safety standards and regulations.

The Technical Report was developed based on a number of contributions describing remote powering over telecommunications cabling under different installation conditions. Consult with the relevant safety standards and regulations, application standard, and with equipment manufacturers for guidance on factors that should be taken into account during design of the generic balanced cabling that supports the distribution of remote powering.

AUSTRALIAN/NEW ZEALAND STANDARD

Telecommunications cabling requirements for remote powering of data terminal equipment

1 Scope

This Technical Report:

- targets the support of applications that provide remote power over balanced cabling to terminal equipment;
- covers the transmission and electrical parameters needed to support remote power over balanced cabling;
- covers various installation scenarios and how these may impact the capability of balanced cabling to support remote powering;
- specifies design and configuration of cabling as specified in International Standards ISO/IEC 11801, ISO/IEC 15018, ISO/IEC 24702 and ISO/IEC 24764;
- provides requirements and guidelines that will enable the support of a wide variety of extra low voltage (ELV) limited power source (LPS) applications using remote power supplied over balanced cabling.

Requirements and guidelines are provided with respect to

- cabling selection and performance (Clause 5),
- installation conditions (Clause 6),
- transmission requirements (Clause 7),
- power delivery (Clause 8),
- connecting hardware (Clause 9),
- mitigation considerations (Annex A).

Safety (electrical, fire, etc.) and electromagnetic compatibility (EMC) requirements are outside the scope of this Technical Report.

2 Normative references

The following referenced documents are indispensable for the application 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/IEC 11801, *Information technology – Generic cabling for customer premises*

ISO/IEC 14763-2,– *Information technology – Implementation and operation of customer premises cabling – Part 2: Planning and installation*[1]

ISO/IEC 15018, *Information technology – Generic cabling for homes*

ISO/IEC 18010, *Information technology – Pathways and spaces for customer premises cabling*

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1 To be published.

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