

Australian/New Zealand Standard™

**Information technology —  
Implementation and operation of  
customer premises cabling**

**Part 2: Planning and installation  
(ISO/IEC 14763-2 (ED. 2.0) MOD)**



AS/NZS 14763.2:2020

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- Australian Council of Trade Unions
- Australian Digital and Telecommunications Industry Association
- Australian Industry Group
- Australian Information Industry Association
- BICSI South Pacific, Australia
- BICSI South Pacific, New Zealand
- Energy Networks Australia
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Originated as AS/NZS ISO/IEC 14763.2:2014.  
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## Preface

This document was prepared by the Joint Standards Australia/Standards New Zealand Committee CT-001 Communications Cabling, to supersede AS/NZS ISO/IEC 14763.2:2014, *Information technology — Implementation and operation of customer premises cabling, Part 2: Planning and installation*.

The objective of this document is to specify requirements for the planning, installation and operation of telecommunications cabling and cabling infrastructures including cabling, pathways, spaces and telecommunications bonds (other than that specified in AS 30129) in support of generic cabling standards and associated documents.

The following aspects are addressed:

- (a) Specification of the installation.
- (b) Quality assurance.
- (c) Installation planning.
- (d) Installation practice.
- (e) Documentation.
- (f) Administration.
- (g) Testing.
- (h) Inspection.
- (i) Operation.
- (j) Maintenance.
- (k) Repair.

This document describes the methodology for the assessment of spaces, pathways, pathway systems and cabling (either installed or planned) in support of remote powering objectives.

This document is applicable to certain hazardous environments but does not exclude additional requirements which are applicable in particular circumstances, e.g. electricity supply and electrified railways.

This second edition includes the following significant technical changes with respect to the previous edition:

- (i) Inclusion of planning and installation practices to support remote powering over the telecommunications cabling infrastructure.
- (ii) Inclusion of planning and installation practices outside buildings.

This document excludes specific requirements applicable to other cabling systems (e.g. power supply cabling), however, it takes account of the effects other cabling systems may have on the installation of telecommunications cabling (and vice versa) and gives general advice.

This document excludes those aspects of installation associated with the transmission of signals in free space between transmitters, receivers or their associated antenna systems, e.g. wireless, radio, microwave or satellite.

Safety and electromagnetic compatibility (EMC) requirements are outside the scope of this document and are covered by other standards and regulations. However, information given in this document can be of assistance in meeting these standards and regulations.

This document is an adoption with national modifications, and has been reproduced from, ISO/IEC 14763-2:2019, *Information technology — Implementation and operation of customer premises cabling — Part 2: Planning and installation*. The modifications are additional requirements and are set out in Appendix ZZ, which has been added at the end of the source text.

Appendix ZZ lists the variations to ISO/IEC 14763-2:2019 for the application of this in Australia and New Zealand.

As this document has been reproduced from an International Standard, the following applies:

- (A) In the source text “this part of ISO/IEC 14763” should read “this Australian/New Zealand Standard”.
- (B) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

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.

## CONTENTS

FOREWORD.....	9
INTRODUCTION.....	11
1 Scope.....	13
2 Normative references .....	14
3 Terms, definitions and abbreviated terms .....	15
3.1 Terms and definitions.....	15
3.2 Abbreviated terms.....	20
3.3 Conventions.....	21
4 Conformance.....	21
5 Specification of installations .....	21
5.1 General.....	21
5.2 Installation specification.....	22
5.2.1 Requirements .....	22
5.2.2 Recommendations .....	23
5.3 Technical specification.....	24
5.3.1 General .....	24
5.3.2 Notification of hazards .....	24
5.3.3 Security requirements.....	25
5.3.4 Performance and configuration – Requirements.....	25
5.3.5 Environmental conditions.....	27
5.4 Scope of work .....	28
5.4.1 Pre-installation .....	28
5.4.2 Installation.....	29
5.4.3 Post-installation.....	30
5.5 Quality assurance .....	30
6 Quality planning.....	30
6.1 Quality plan .....	30
6.2 Specification of cabling components .....	31
6.3 Sampling.....	32
6.3.1 Balanced cabling .....	32
6.3.2 Optical fibre cabling.....	34
6.4 Treatment of marginal results.....	36
6.4.1 Balanced cabling .....	36
6.4.2 Optical fibre cabling.....	36
6.5 Treatment of non-compliant results .....	36
6.6 Change control .....	36
7 Installation planning.....	36
7.1 General.....	36
7.2 Safety .....	37
7.2.1 General .....	37
7.2.2 Low voltage power supply cabling.....	37
7.2.3 Telecommunications cables fire performance .....	37
7.2.4 Optical fibre cabling.....	37
7.2.5 Transmission and terminal equipment.....	37
7.3 Environment.....	37
7.4 Points of electrical contact .....	38

7.5	External service provision .....	38
7.5.1	Requirements .....	38
7.5.2	Recommendations .....	38
7.6	Pathways and pathway systems .....	38
7.6.1	General .....	38
7.6.2	Inside buildings .....	42
7.6.3	Outside buildings .....	49
7.7	Spaces .....	61
7.7.1	Requirements .....	61
7.7.2	Recommendations .....	66
7.8	Functional elements .....	68
7.8.1	Requirements .....	68
7.8.2	Recommendations .....	70
7.9	Segregation of telecommunications cabling and power supply cabling inside buildings .....	70
7.9.1	General .....	70
7.9.2	Requirements .....	72
7.9.3	Recommendations .....	78
7.10	Segregation of underground telecommunications cabling and power supply cabling outside buildings .....	78
7.10.1	General .....	78
7.10.2	Power supply cabling $\leq$ AC 1 000 V RMS or DC 1 500 V .....	78
7.10.3	Power supply cabling $>$ AC 1 000 V RMS or DC 1 500 V .....	79
7.10.4	Earthing systems .....	80
7.10.5	Other infrastructures .....	81
7.11	Segregation of aerial telecommunications cabling .....	82
7.11.1	General .....	82
7.11.2	Overhead power supply infrastructures .....	82
7.11.3	Sharing of infrastructures carrying $\leq$ 1 000 V AC (1 500 V DC) .....	84
7.11.4	Sharing of infrastructures carrying $>$ 1 000 V AC (1 500 V DC) .....	86
7.12	Planning for repair .....	86
7.13	Cabling – Requirements .....	87
7.13.1	General .....	87
7.13.2	Unscreened cabling .....	87
7.13.3	Screened cabling .....	87
7.13.4	Optical fibre cabling .....	87
7.14	Planning and assessment of cabling in support of remote powering objectives .....	88
7.14.1	General .....	88
7.14.2	Remote powering installations of Category RP3 .....	88
7.14.3	Connecting hardware .....	92
8	Installation practices .....	93
8.1	General .....	93
8.2	Safety .....	93
8.2.1	General .....	93
8.2.2	Power supply cabling .....	93
8.2.3	Telecommunications cables fire performance .....	93
8.2.4	Optical fibre cabling .....	93
8.2.5	Guards and signs .....	94

8.2.6	Enclosed spaces .....	94
8.2.7	Maintenance holes.....	94
8.2.8	Closures .....	94
8.3	Environment.....	94
8.3.1	Storage.....	94
8.3.2	Installation – Requirements .....	94
8.4	Component inspection and testing – Requirements .....	94
8.5	Pathways .....	95
8.5.1	Requirements .....	95
8.5.2	Recommendations .....	96
8.6	Spaces .....	96
8.6.1	Requirements .....	96
8.6.2	Recommendations .....	97
8.7	Pathway system installation .....	97
8.7.1	General .....	97
8.7.2	Inside buildings .....	98
8.7.3	Outside buildings .....	98
8.8	Closure installation .....	98
8.9	Cable installation .....	99
8.9.1	Cable installation within pathway systems .....	99
8.9.2	Inside buildings .....	100
8.9.3	Cable installation in maintenance holes .....	101
8.9.4	Cable installation within closures – Requirements.....	102
8.10	Jointing and terminating of cables.....	102
8.10.1	Requirements .....	102
8.10.2	Balanced cabling .....	103
8.10.3	Screened balanced cabling.....	103
8.10.4	Optical fibre cabling.....	103
8.11	Cords and jumpers.....	103
8.12	Surge protective devices.....	103
8.13	Acceptance .....	104
8.13.1	Inspection.....	104
8.13.2	Testing .....	104
9	Documentation and administration.....	104
9.1	Symbols and preparation of documents.....	104
9.1.1	Requirements .....	104
9.1.2	Recommendations .....	104
9.2	Administration.....	104
9.2.1	General .....	104
9.2.2	Administration system.....	105
9.2.3	Identifiers – Requirements .....	109
9.2.4	Component labelling .....	109
9.2.5	Records.....	112
9.2.6	Cable administration system.....	116
9.2.7	Reports.....	119
10	Testing.....	119
10.1	General.....	119
10.1.1	Links and permanent links .....	119
10.1.2	Channels .....	120

10.1.3	Cabling interface adapters .....	121
10.1.4	Calibration .....	121
10.1.5	Equipment protection .....	121
10.1.6	Measurement conditions .....	122
10.2	Test procedures for balanced cabling .....	122
10.2.1	General .....	122
10.2.2	Measurement of length-related parameters .....	122
10.2.3	Treatment of marginal test results .....	122
10.2.4	Treatment of unacceptable test results .....	122
10.2.5	Test result format .....	122
10.2.6	Test result documentation .....	123
10.3	Test procedures for optical fibre cabling .....	123
10.3.1	General .....	123
10.3.2	Treatment of unacceptable test results .....	123
10.3.3	Test result documentation .....	124
11	Inspection .....	124
11.1	General .....	124
11.2	Inspection Level 1 .....	124
11.3	Inspection Level 2 .....	125
11.4	Inspection Level 3 .....	125
11.5	Inspection documentation – Requirements .....	125
12	Operation .....	126
12.1	Connection of equipment .....	126
12.2	Standard operating procedure .....	126
12.2.1	Requirements .....	126
12.2.2	Recommendations .....	126
12.3	Cords and jumpers .....	126
12.4	Optical fibre adapters .....	126
13	Maintenance .....	127
13.1	Approaches to maintenance .....	127
13.1.1	General .....	127
13.1.2	Requirements .....	127
13.2	Maintenance procedures .....	127
13.2.1	Requirements .....	127
13.2.2	Recommendations .....	127
14	Repair .....	128
Annex A (normative)	Optical fibre polarity maintenance: connecting hardware for multiple optical fibres .....	129
Annex B (normative)	Common infrastructures within multi-tenant premises .....	143
Annex C (normative)	Cabling in accordance with ISO/IEC 11801-2 .....	151
Annex D (normative)	Cabling in accordance with ISO/IEC 11801-3 .....	153
Annex E (normative)	Cabling in accordance with ISO/IEC 11801-4 .....	156
Annex F (normative)	Cabling in accordance with ISO/IEC 11801-5 .....	162
Annex G (normative)	Cabling in accordance with ISO/IEC 11801-6 .....	166
Annex H (informative)	Equipment accommodation environments .....	168
Annex I (normative)	Information for remote powering .....	169
Bibliography	.....	173

Figure 1 – Schematic relationship between ISO/IEC 14763-2 and other relevant International Standards and Technical Reports .....	12
Figure 2 – Quality assurance schematic.....	22
Figure 3 – Conductor current for IEEE 802.3 remote powering applications .....	26
Figure 4 – Examples of conformant and non-conformant bend radius management .....	44
Figure 5 – Example of use of curved corners in pathway systems .....	46
Figure 6 – Example of layered cable trays with smaller width upper trays .....	48
Figure 7 – Example of uncovered (accessible) row of floor tiles to provide access to lower tray.....	48
Figure 8 – Example of cabling installations outside buildings .....	49
Figure 9 – Example of wind vibration damper.....	61
Figure 10 – Dimensions of rooms intended to contain distributors.....	63
Figure 11 – Process of determining cable separation .....	72
Figure 12 – Flowchart for cable separation calculation.....	75
Figure 13 – Separation of power supply and telecommunications cables without dividers.....	76
Figure 14 – Assumed minimum separation of power supply and telecommunications cables with dividers .....	77
Figure 15 – Example of cable separation distance .....	77
Figure 16 – Example showing the protection of underground information technology cables when located next to power supply cables .....	79
Figure 17 – Separation of adjacent infrastructures .....	83
Figure 18 – Separation distances on supporting structures .....	85
Figure 19 – Separation distance on supporting structures with lighting devices.....	85
Figure 20 – Separation of cable bundles to minimize heating .....	101
Figure 21 – Examples of labels indicating RP Category of remote powering installation .....	108
Figure 22 – Examples of cord and jumper labelling .....	111
Figure 23 – Cable administration database and possible linkages.....	117
Figure 24 – Basic cabling administration.....	117
Figure 25 – Examples of cabling permanent links.....	120
Figure 26 – Reference planes for link and channels (point-to-point).....	120
Figure 27 – Example of a cabling channel.....	121
Figure A.1 – Duplex connecting hardware plug .....	130
Figure A.2 – Duplex connecting hardware adapter .....	130
Figure A.3 – Duplex patch cord.....	130
Figure A.4 – Views of crossover patch cords.....	131
Figure A.5 – Optical fibre sequences and adapter orientation in patch panel for the symmetrical position method.....	132
Figure A.6 – Optical fibre sequences and adapter orientation in patch panel for the reverse-pair position method.....	133
Figure A.7 – Array connector cable or patch cord (key-up to key-up) .....	134
Figure A.8 – Array adapter with aligned keyways .....	135
Figure A.9 – Transition assembly .....	136
Figure A.10 – Connectivity method for duplex signals .....	137

Figure A.11 – Connectivity method for parallel optics channels .....	138
Figure A.12 – Array connector cable or patch cord (key-up to key-up).....	139
Figure A.13 – Array adapter with aligned keyways .....	139
Figure A.14 – Transition assembly .....	140
Figure A.15 – Connectivity method for duplex cabling .....	141
Figure A.16 – Connectivity method for array cabling .....	142
Figure B.1 – Example of common pathways and spaces in a multi-tenant building .....	144
Figure B.2 – Example of a campus entrance facility .....	146
Figure B.3 – Example 1: Common equipment room.....	148
Figure B.4 – Example 1: Common telecommunications room .....	149
Figure B.5 – Example 2: Common telecommunications room .....	149
Figure C.1 – Connection of functional elements providing redundancy .....	152
Figure F.1 – Connection of functional elements providing redundancy .....	163
Figure I.1 – Illustration of installation environments .....	172
Table 1 – Remote powering cabling installation Categories and controls.....	26
Table 2 – Installed balanced cabling test parameters .....	33
Table 3 – Minimum sample sizes for alien (exogenous) crosstalk testing .....	34
Table 4 – Installed optical fibre cabling test parameters .....	35
Table 5 – Examples of pathway systems .....	39
Table 6 – Stacking height for non-continuous and interval support pathway systems .....	45
Table 7 – Design and planning of pathways outside buildings .....	50
Table 8 – Requirements and recommendations for pathway depths below finished surface .....	52
Table 9 – Minimum installed clearances above ground for aerial cables.....	54
Table 10 – Separation recommendations between metallic telecommunications cabling and specific EMI sources .....	71
Table 11 – Classification of telecommunications cables .....	73
Table 12 – Minimum separation, $S$ .....	74
Table 13 – Power cabling factor, $P$ .....	74
Table 14 – Minimum distance between telecommunications cables and earthed electrodes of power systems in rural and urban environments .....	81
Table 15 – Minimum distance between telecommunications cables and earthed electrodes of power systems in accordance with ITU-T K.8.....	81
Table 16 – Minimum clearances and protective measures at crossings between telecommunications cables and various underground services .....	82
Table 17 – Minimum clearances between aerial telecommunications and overhead power supply cabling .....	83
Table 18 – Technology-independent channel length vs. temperature .....	89
Table 19 – Temperature changes for various cable bundle sizes.....	90
Table 20 – Reduction factors for rectangular cable groups.....	91
Table 21 – Level of installation complexity .....	105
Table 22 – Level of operational complexity .....	106
Table 23 – Minimum requirements of administration systems .....	106
Table 24 – Minimum requirements of operational administration systems.....	108

Table 25 – Labelling requirements .....	110
Table 26 – Labelling recommendations (additional).....	111
Table 27 – Infrastructure records for spaces, cabinets, racks, frames and closures .....	113
Table 28 – Infrastructure records for cables and termination points.....	114
Table 29 – Infrastructure records .....	115
Table 30 – Infrastructure records for pathways and premises.....	116
Table 31 – Recommendations of installation administration systems.....	118
Table 32 – Recommendations of operational administration systems .....	118
Table A.1 – Optical fibre colour code scheme used in Annex A.....	129
Table B.1 – Summary of common spaces used to service a multi-tenant building.....	144
Table D.1 – Risk elements in determining a maintenance approach .....	154
Table E.1 – Minimum requirements for dimensions of primary distribution spaces.....	159
Table E.2 – Requirements for dimensions of secondary distribution spaces .....	159
Table E.3 – Minimum dimensions of spaces allocated to junction boxes .....	160
Table E.4 – Recommendations for dimensions of primary distribution spaces .....	161
Table E.5 – Recommendations for dimensions of secondary distribution spaces.....	161
Table H.1 – Equipment environmental specifications .....	168
Table I.1 – Temperature changes for remote power installations of Category RP2 .....	170

# INFORMATION TECHNOLOGY – IMPLEMENTATION AND OPERATION OF CUSTOMER PREMISES CABLING –

## Part 2: Planning and installation

### FOREWORD

- 1) ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.
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International Standard ISO/IEC 14763-2 was prepared by subcommittee 25: Interconnection of information technology equipment, of ISO/IEC joint technical committee 1: Information technology.

This second edition cancels and replaces the first edition published in 2012 and Amendment 1:2015. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- the inclusion of planning and installation practices to support remote powering over the telecommunications cabling infrastructure;
- the inclusion of planning and installation practices outside buildings.

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

FDIS	Report on voting
JTC1-SC25/2909/FDIS	JTC1-SC25/2931/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.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the ISO/IEC 14763 series, published under the general title *Information technology – Implementation and operation of customer premises cabling*, can be found on the IEC and ISO websites.

**IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

## INTRODUCTION

The use of generic information technology (IT) cabling, termed telecommunications cabling throughout this document (in accordance with the ISO/IEC 11801 series), for an increased number of non-IT services is reflected in the predominant use of the term telecommunications in this document.

The importance of services delivered by telecommunications cabling infrastructure is similar to that of utilities such as heating, lighting and electricity supplies. As with those utilities, interruptions to service can have a serious impact. Poor quality of service due to lack of planning, use of inappropriate components, incorrect installation, poor administration or inadequate support can threaten an organization's effectiveness.

There are four phases in the successful implementation of telecommunications cabling:

- a) design;
- b) specification – the detailed requirement for the cabling, including the planning of its accommodation and associated building services addressing safety and specific environments (e.g. electromagnetic), together with the quality assurance requirements to be applied;
- c) installation – in accordance with the requirements of the specification;
- d) operation – the management of connectivity and the maintenance of transmission performance during the life of the cabling.

This document supports the specification, implementation and operation of generic telecommunications cabling designed in accordance with the standards and associated documents developed by ISO/IEC JTC 1/SC 25 and addresses the following topics:

- specification depending on the application, environment, building infrastructure and facilities;
- quality assurance;
- installation planning (including pathways and spaces) depending on the application, environment, building infrastructure and facilities, etc.;
- installation practice (including pathways and spaces);
- documentation and administration;
- testing;
- inspection;
- operation;
- maintenance and maintainability (based on any impact from planning and installation);
- repair and repairability (based on any impact from planning and installation).

It does not cover those aspects of installation associated with the transmission of signals in free space between transmitters, receivers or their associated antenna systems (e.g. wireless, radio, microwave or satellite).

The following normative annexes support specific aspects of planning and installation:

- Annex A: Optical fibre polarity;
- Annex B: Common infrastructures within multi-tenant premises.

The requirements and recommendations of Clauses 5 to 14 are premises-independent. The following normative annexes include requirements for generic cabling in accordance with specific International Standards:

- Annex C: Cabling in accordance with ISO/IEC 11801-2;

- Annex D: Cabling in accordance with ISO/IEC 11801-3;
- Annex E: Cabling in accordance with ISO/IEC 11801-4;
- Annex F: Cabling in accordance with ISO/IEC 11801-5;
- Annex G: Cabling in accordance with ISO/IEC 11801-6.

Annex H provides information on environmental classes for spaces containing telecommunications equipment.

Annex I provides additional information regarding remote powering.

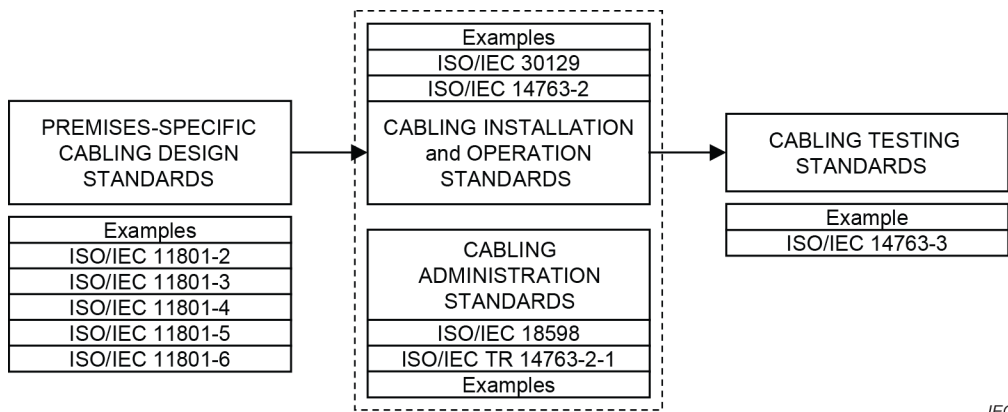
This document sets out the responsibilities of telecommunications cabling installers and premises owners, and is intended to be referenced in relevant contracts. The owners can delegate selected responsibilities to designers, specifiers, operators and maintainers of installed telecommunications cabling.

This document is also relevant to

- architects, building designers and builders,
- main contractors,
- designers, suppliers, installers, inspectors (auditors), building managers, maintainers and owners of telecommunications cabling,
- access providers and service providers,
- end users.

This document is one of a number of documents prepared in support of International Standards and Technical Reports for cabling design produced by ISO/IEC JTC 1/SC 25. Figure 1 shows the inter-relationship between these International Standards and Technical Reports.

Users of this document should be familiar with the applicable cabling design standard.



IEC

**Figure 1 – Schematic relationship between ISO/IEC 14763-2 and other relevant International Standards and Technical Reports**

NOTE Telecommunications infrastructure affects raw material consumption. The infrastructure design and installation methods also influence product life and sustainability of electronic equipment life cycling. These aspects of telecommunications infrastructure impact our environment. Since building life cycles are typically planned for decades, technological electronic equipment upgrades are necessary. The telecommunications infrastructure design and installation process magnifies the need for sustainable infrastructures with respect to building life, electronic equipment life cycling and considerations of effects on environmental waste. Telecommunications designers are encouraged to research local building practices for a sustainable environment and conservation of fossil fuels as part of the design process.

# INFORMATION TECHNOLOGY – IMPLEMENTATION AND OPERATION OF CUSTOMER PREMISES CABLING –

## Part 2: Planning and installation

### 1 Scope

This part of ISO/IEC 14763 specifies requirements for the planning, installation and operation of telecommunications cabling and cabling infrastructures including cabling, pathways, spaces and telecommunications bonds (other than that specified in ISO/IEC 30129) in support of generic cabling standards and associated documents.

The following aspects are addressed:

- a) specification of the installation;
- b) quality assurance;
- c) installation planning;
- d) installation practice;
- e) documentation;
- f) administration;
- g) testing;
- h) inspection;
- i) operation;
- j) maintenance;
- k) repair.

The requirements and recommendations of Clauses 5 to 14 are premises-independent. Annexes C through G contain premises-specific amendments of and additions to these requirements and recommendations.

In addition, this document describes the methodology for the assessment of spaces, pathways, pathway systems and cabling (either installed or planned) in support of remote powering objectives.

This document excludes specific requirements applicable to other cabling systems (e.g. power supply cabling); however, it takes account of the effects other cabling systems may have on the installation of telecommunications cabling (and vice versa) and gives general advice.

This document excludes those aspects of installation associated with the transmission of signals in free space between transmitters, receivers or their associated antenna systems (e.g. wireless, radio, microwave or satellite).

This document is applicable to certain hazardous environments but does not exclude additional requirements which are applicable in particular circumstances (e.g. electricity supply and electrified railways).

Safety and electromagnetic compatibility (EMC) requirements are outside the scope of this document and are covered by other standards and regulations. However, information given in this document can be of assistance in meeting these standards and regulations.