

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Digital load side transmission lighting control (DLT) –
Part 1: Basic requirements**

**Commande d'éclairage par transmission numérique côté charge (DLT) –
Partie 1: Exigences de base**



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**Digital load side transmission lighting control (DLT) –
Part 1: Basic requirements**

**Commande d'éclairage par transmission numérique côté charge (DLT) –
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CONTENTS

FOREWORD.....	5
INTRODUCTION.....	7
1 Scope.....	8
2 Normative references	8
3 Terms and definitions	8
4 General description	10
4.1 General.....	10
4.2 Master-slave structure	10
4.3 Specification overview	10
5 General requirements	10
5.1 Voltage rating	10
5.2 Frequency rating.....	11
5.3 Marking of control devices and control gear	11
6 Electrical specification.....	11
6.1 General.....	11
6.2 Wiring method.....	12
6.3 Wiring diagram.....	12
6.4 Block diagram of the control gear.....	12
6.5 Block diagram of the control device.....	13
6.6 Electrical characteristics in different periods of the mains waveform	13
6.6.1 General	13
6.6.2 Separation of the half-wave into time periods	14
6.6.3 Electrical characteristics of the supply period	14
6.6.4 Electrical characteristics of the operating period.....	19
6.6.5 Electrical characteristics of the data period.....	19
6.7 Data signal voltage range and timing	23
6.8 Power up timing	23
6.9 Electrical characteristics during the off state of control gear.....	24
6.9.1 General	24
6.9.2 Power controlled off state	24
6.9.3 Telegram controlled off state	25
7 Data timing.....	25
7.1 General.....	25
7.2 Information bit timing	25
7.3 Permissible frames	25
8 Telegram structure	26
8.1 General.....	26
8.2 Telegrams.....	27
8.2.1 General	27
8.2.2 Group number	27
8.2.3 Telegram type	27
8.2.4 Parity bit.....	27
8.2.5 Data for control of the control gear	27
9 Definition of telegram types	27
9.1 Summary of telegram types	27

9.2	Telegram type 0: Brightness	28
9.3	Telegram type 1: Colour control	28
9.4	Telegram type 2: Colour temperature control	29
9.5	Telegram type 3.....	29
9.6	Telegram type 4.....	29
9.7	Telegram type 5: commissioning: Group number assignment	29
9.8	Telegram type 6: Manufacturer specific.....	30
9.9	Telegram type 7: extended telegram	30
10	Method of operation.....	30
10.1	General.....	30
10.2	Brightness	31
10.2.1	General	31
10.2.2	Response time.....	31
10.2.3	Light output level	31
10.2.4	Start-up	31
10.3	Colour control	31
10.3.1	General	31
10.3.2	Colour (x, y).....	31
10.3.3	Response time.....	32
10.3.4	Colour gamut.....	32
10.3.5	Start-up	32
10.4	Colour temperature control	33
10.4.1	General	33
10.4.2	CCT (correlated colour temperature)	33
10.4.3	Response time.....	33
10.4.4	Start-up	33
10.5	Telegram controlled group number assignment.....	33
10.6	Manufacturer specific telegram	34
11	Test procedures	34
11.1	General.....	34
11.2	Electrical characteristics tests.....	35
11.2.1	General	35
11.2.2	Test of control device	35
11.2.3	Test of control gear	38
11.3	Test of data timing	41
11.4	Test of telegram structure	41
11.4.1	Test of control device	41
11.4.2	Test of control gear	41
11.5	Test of telegram types	42
11.5.1	General	42
11.5.2	Rejection of unsupported telegram types	42
11.5.3	Test of telegram type 0: brightness.....	42
11.5.4	Test of telegram type 1: colour control.....	42
11.5.5	Test of telegram type 2: colour temperature control	43
11.5.6	Test of telegram type 5: commissioning.....	43
11.5.7	Test of telegram type 6: manufacturer specific.....	43
11.6	Test of method of operation	43
11.6.1	General	43
11.6.2	Group number operation.....	43

Annex A (informative) Examples of procedures for telegram controlled group number commissioning	47
A.1 Telegram controlled group number assignment of a new system	47
A.2 Telegram controlled group number assignment of replacement control gear	47
A.3 Telegram controlled changing of group numbers	48
Figure 1 – Example wiring diagram	12
Figure 2 – Example of block diagram of control gear	13
Figure 3 – Example of block diagram of control device	13
Figure 4 – Time periods of each half-wave	14
Figure 5 – Timing of supply period	15
Figure 6 – Timing data period	20
Figure 7 – Rise time and fall time at the control interface	23
Figure 8 – Transmission of “start of telegram”	25
Figure 9 – Transmission of first bit 0, second bit 0	25
Figure 10 – Transmission of first bit 0, second bit 1	26
Figure 11 – Transmission of first bit 1, second bit 0	26
Figure 12 – Transmission of first bit 1, second bit 1	26
Figure 13 – Brightness telegram	28
Figure 14 – Colour control telegram	28
Figure 15 – Colour temperature telegram	29
Figure 16 – Group number assignment telegram	29
Figure 17 – Manufacturer specific telegram	30
Figure 18 – The CIE 1931 colour space chromaticity diagram	32
Figure 19 – Test Circuit for testing the Control Device	35
Figure 20 – Test Circuit for testing the Control Gear	38
Figure 21 – Voltage applied to control gear for test procedure	39
Table 1 – Nominal mains voltage 100 V, frequency 50 Hz or 60 Hz	17
Table 2 – Nominal mains voltage 120 V; frequency 50 Hz or 60 Hz	17
Table 3 – Nominal mains voltage 200 V; frequency 50 Hz or 60 Hz	18
Table 4 – Nominal mains voltage 230 V; frequency 50 Hz or 60 Hz	18
Table 5 – Nominal mains voltage 277 V; frequency 50 Hz or 60 Hz	19
Table 6 – Nominal mains voltage 100 V; frequency 50 Hz or 60 Hz	21
Table 7 – Nominal mains voltage 120 V; frequency 50 Hz or 60 Hz	21
Table 8 – Nominal mains voltage 200 V; frequency 50 Hz or 60 Hz	21
Table 9 – Nominal mains voltage 230 V; frequency 50 Hz or 60 Hz	22
Table 10 – Nominal mains voltage 277 V; frequency 50 Hz or 60 Hz	22
Table 11 – Electrical characteristics of the data signal	23
Table 12 – Currents and Voltages for control gear during the power controlled off state	24
Table 13 – Telegram types	28
Table 14 – Dimming characteristic	31
Table 15 – Parameters for testing purposes	35
Table 16 – Group number test telegram sequence	44

INTERNATIONAL ELECTROTECHNICAL COMMISSION

DIGITAL LOAD SIDE TRANSMISSION LIGHTING CONTROL (DLT) –**Part 1: Basic requirements**

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International Standard IEC 62756-1 has been prepared by subcommittee 34C: Auxiliaries for lamps, of IEC technical committee 34: Lamps and related equipment.

This bilingual version (2015-12) corresponds to the English version, published in 2015-05.

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

CDV	Report on voting
34C/1054/CDV	34C/1081B/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

The French version of this standard has not been voted upon.

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

A list of all parts in the IEC 62756 series, published under the general title *Digital load side transmission lighting control (DLT)*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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- withdrawn,
- replaced by a revised edition, or
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INTRODUCTION

This standard concerning Digital Load Side Transmission Lighting Control (DLT) describes a protocol for simple control of brightness, colour, colour temperature, and other parameters for the purpose of controlling lighting sources such as CFLi, LED light engines, electronic control gear and any other light source with integrated or external control gear.

This protocol uses existing wiring and allows easy retrofit of standard switches, dimmers and lamps with the new devices described in this standard, with little or no configuration.

The following standards contain safety requirements for control devices and control gear:

- IEC 60669-2-1, *Switches for household and similar fixed electrical installations – Part 2-1: Particular requirements – Electronic switches,*
- IEC 61347, *Lamp control gear,*
- IEC 60968, *Self-ballasted lamps for general lighting services – Safety requirements,*
- IEC 62560, *Self-ballasted LED-lamps for general lighting services by voltage > 50 V – Safety specifications.*

DIGITAL LOAD SIDE TRANSMISSION LIGHTING CONTROL (DLT) –

Part 1: Basic requirements

1 Scope

This International Standard specifies a protocol, electrical interface and test procedures for control of electronic lighting equipment by digital signals over the load side mains wiring.

Safety requirements are not covered by this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60364 (all parts), *Low-voltage electrical installations*

IEC 60038, *IEC standard voltages*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

load side

wire from the output of the control device to the supply input of one or more control gear

3.2

interface

wires used for both supply of AC mains power and data transfer

3.3

control device

device that is connected to the interface and sends commands to at least one control gear

[SOURCE: IEC 62386-101:2009, 3.1, modified — "in order to control other devices (for example lamp control gear) connected to the same interface" has been replaced by "to at least one control gear"]

3.4

control gear

one or more components between the supply and one or more lamps which may serve to transform the supply voltage, limit the current of the lamp(s) to the required value, provide starting voltage and preheating current, prevent cold starting, correct power factor or reduce radio interference.

Note 1 to entry: Lamps may have an integrated control gear such as an integrated compact fluorescent lamp or integrated LED lamp. Any references to control gear will include any such integrated lamps.

[SOURCE: IEC 62386-101:2009, 3.2]