

# INTERNATIONAL STANDARD



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



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

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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

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**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.

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.

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.

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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]