

ICS 13.320

English Version

**Alarm systems - Intrusion and hold-up systems - Part 2-11:
Intrusion detectors - ALDDR**

Systèmes d'alarme - Systèmes d'alarme contre l'intrusion et
les hold-up - Partie 2-11: Détecteurs à faisceaux laser -
ALDDR

Alarmanlagen - Einbruch- und Überfallmeldeanlagen - Teil
2-11: Einbruchmelder - ALDDR

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European Foreword

This document (CLC/TS 50131-2-11:2017) has been prepared by the CLC/TC 79 "Alarm systems".

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Introduction

This Technical Specification deals with Active Laser Detector Responsive to Diffuse Reflection (to be referred to as ALDDR) installed inside buildings, used as part of intrusion alarm systems. It includes four security grades and four environmental classes.

The purpose of an ALDDR is to detect an intruder inside a predefined area and to provide the necessary range of signals or messages to be used by the rest of the intrusion alarm system.

The number and scope of these signals or messages will be more comprehensive for systems that are specified at the higher grades.

This Technical Specification is only concerned with the requirements and tests for the ALDDR. Other types of detectors are covered by other documents identified as in EN 50131-2 series.

1 Scope

This Technical Specification is for ALDDR inside buildings and provides four security grades 1 to 4 (see EN 50131-1), specific or non-specific wire or wire-free ALDDR, and uses environmental classes I to IV (see EN 50130-5).

An ALDDR fulfils all the requirements of the specified grade.

The ALDDR detects an intruder inside a predefined area.

This standard covers ALDDR using both pulsed and continuous wave laser operation technologies according to LIDAR principle (Light Detection And Ranging). Other technologies i.e. doppler based laser operation or use of additional retro-reflective objects or video based technologies are not covered by this standard.

Functions additional to the mandatory functions specified in this standard may be included in the ALDDR, providing they do not adversely influence the correct operation of the mandatory functions.

This Technical Specification does not apply to system interconnections.

This Technical Specification does not deal with requirements for compliance with regulatory directives, such as EMC-directive, low-voltage directive, etc., except that it specifies the equipment operating conditions for EMC- susceptibility testing as required by EN 50130-4.

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.

EN 50130-4, *Alarm systems - Part 4: Electromagnetic compatibility - Product family standard: Immunity requirements for components of fire, intruder, hold up, CCTV, access control and social alarm systems*

EN 50130-5, *Alarm systems - Part 5: Environmental test methods*

EN 50131-1, *Alarm systems - Intrusion and hold-up systems - Part 1: System requirements*

EN 50131-6, *Alarm systems - Intrusion and hold-up systems - Part 6: Power supplies*

EN 60529, *Degrees of protection provided by enclosures (IP Code)*(IEC 60529)

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this Technical Specification, the terms and definitions given in EN 50131-1 and the following apply.

3.1.1

Active Laser Detector Responsive to Diffuse Reflection (ALDDR)

this type of detector consists of a device with one or more detection planes whose sensing function is performed by opto-electronic emitting and receiving elements. The detector senses the diffuse reflection of optical radiation by an object in detection zone(s) specified in two dimensions generated within the device. One dimension is the distance to the device and the other dimension is the size. Both the emitting and receiving elements are contained in one device

3.1.2

incorrect operation

physical condition that causes an inappropriate signal or message from an ALDDR