



Door & Access Systems
Manufacturers Association
International

OPERATOR & ELECTRONICS DIVISION

DASMA TECHNICAL DATA SHEET

#363

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Evaluation of Garage Door Operators Employing Photoelectric Eyes

Introduction

Manufacturers may choose to have their garage door operators evaluated for use with various photoelectric eyes, used as non-contact entrapment protection devices, by one of the following methods:

1. Testing, including all optional photoelectric eyes as part of the original investigation test plan, or
2. Use of photoelectric eyes within established acceptable methods of use and installation.

Definition of "Photoelectric Eye"

By definition, a photoelectric eye is a sensor that consists of a light-emitting device and a light-receiving device, where if the beam is blocked by an obstruction, the sensor signals the operator to stop and reverse.

Components and Testing

Under a component evaluation program for photoelectric eyes intending to be used with garage door operators, it is not required for component assemblies to be tested with specific garage door operators. In an instance where a component manufacturer obtains written authorization from an operator manufacturer indicating that the component is intending to be employed with a specific operator or system, that operator or system will be used during the component testing.

A photoelectric eye is considered a "component" of an automated garage door system and is intended for use in a specific end product. Typically, a component is incomplete in construction features or restricted in performance capabilities. The performance of a component may change, dependent on the end use application; therefore, it is necessary for a testing agency to determine the acceptability of a photoelectric eye when reviewing the product on which the photoelectric eye will be used.

Note: Technical Data Sheets are information tools only and should not be used as substitutes for instructions from individual manufacturers. Always consult with individual manufacturers for specific recommendations for their products and check the applicable local regulations.

This Technical Data Sheet was prepared by the members of DASMA's Operator & Electronics Division Technical Committee. DASMA is a trade association comprising manufacturers of rolling doors, fire doors, grilles, counter shutters, sheet doors, and related products; upward-acting residential and commercial garage doors; operating devices for garage doors and gates, sensing devices, and electronic remote controls for garage doors and gate operators; as well as companies that manufacture or supply either raw materials or significant components used in the manufacture and installation of the Active Members' products.

Garage Door Operator Product Review by Nationally Recognized Testing Laboratories

A garage door operator manufacturer submitting a product for evaluation must include all alternative entrapment protection component options as part of their test plan. The testing agency will review the product, as submitted, and issue a report that includes all component options subject to acceptable methods of use and installation.

Means of Establishing Acceptable Methods of Use and Installation

Conditions for acceptable usage normally include the following as specified in UL 325, *Standard for Safety for Door, Drapery, Gate, Louver, and Window Operators and Systems*:

- Instructional requirements
- General requirements regarding installation and power
- Current protection
- All applicable garage door operational verification tests and
- All applicable requirements in the UL 991, *Standard for Safety-Related Controls Employing Solid-State Devices* during the operator investigation.

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