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Testing of External Entrapment Protection Devices Used With Vehicular Gate Operators

Introduction

Manufacturers of external entrapment protection devices may choose to have their products evaluated as a component for compliance with ANSI/CAN/UL 325 by one of the following methods:

1. Testing, including various possible end-use gate operators as part of a nationally recognized testing laboratory (NRTL) investigation test plan, or;
2. Testing, including specific conditions for further investigation or use within established acceptable parameters.

Components and Testing

An external entrapment protection device is considered a “component” of an automated gate operator system and is intended for use with a specific end product. Typically, a component is incomplete in construction features or restricted in performance capabilities. The performance of an external entrapment protection device “component” is incomplete until the reversal features have been evaluated in conjunction with the controls of a gate operator. Full compliance is dependent on the end use application. It is necessary for a testing agency to determine the acceptability of these components when reviewing the product on which the component will be used. There are two options for this testing:

1. In some instances, a component manufacturer obtains written authorization from an operator manufacturer to include the operator/system during the component testing. In this case, both the component and system tests are completed by the component manufacturer.
2. It is also possible for a component manufacturer to conduct a partial evaluation under a component evaluation program. In this program, it is not required for component assemblies to be tested with specific vehicular gate operators during the initial component evaluation. The responsibility to test the operator system, including the entrapment protection device(s), then becomes the responsibility of the gate operator manufacturer.

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.

Component Review by Nationally Recognized Testing Laboratories

A gate 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 ANSI/CAN/UL 325, the Standard for Safety for Door, Drapery, Gate Louver, and Window Operators and Systems:

- Instructional requirements are placed on the gate operator manufacturer to cross reference all acceptable entrapment protection devices.
- General requirements regarding installation and power.
- Current protection.
- All applicable vehicular gate operational verification tests.
- All applicable requirements in UL 991, Standard for Safety-Related Controls Employing Solid-State Devices, during the operator investigation.

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