
NIPF7.SA10989
Active Opto-electronic Protective Devices Certified for Canada

Active Opto-electronic Protective Devices Certified for Canada

See General Information for Active Opto-electronic Protective Devices Certified for Canada

**ROCKWELL AUTOMATION/
ALLEN-BRADLEY**
2 EXECUTIVE DR
CHELMSFORD, MA 01824 USA

SA10989

Type 4 light curtain, Model SAFE SHIELD Series (+).

Type 4 light curtain , Model Guardshield(+), Series 440L followed by P, T or R, followed by 4, followed by J or K, followed by xxxx, followed by Y, followed by D.

Type 4 light curtain accessories, Remote Teach Box, Model No. 440L-M8600. For use only with the Series 440L Light Curtains with Suffix D.

Intelliface, Module 442L-M4200.

+ - Also complies with UL1998, the Standard for Safety Related Software.

+++ - Also complies with IEC61508-1 through -7.

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NIPF7.GuideInfo

Active Opto-electronic Protective Devices Certified for Canada

[Industrial Control Equipment Certified for Canada] (Electro-sensitive Protective Equipment Certified for Canada) Active Opto-electronic Protective Devices Certified for Canada

See General Information for Electro-sensitive Protective Equipment Certified for Canada

This category covers electro-sensitive protective equipment (ESPE) for the safeguarding of machinery, employing active opto-electronic protective devices (AOPD) for the sensing function.

The sensing function is performed by opto-electronic emitting and receiving elements detecting the interruption of optical radiations generated, within the device, by an opaque object present in the specified detection zone.

Excluded from this category are AOPDs employing radiation at wavelengths outside the range 400 nm to 1,500 nm.

The basic standards used to investigate products in this category are:

CAN/CSA 22.2 No. 14, the Standard for Industrial Control Equipment

CAN/CSA 22.2 No. 0.8, the Standard for Safety Functions Incorporating Electronic Technology

IEC 61496-1, Safety Of Machinery-Electro-Sensitive Protective Equipment-Part 1: General Requirements And Tests

IEC 61496-2, Safety Of Machinery-Electrosensitive Protective Equipment-Part 2: Particular Requirements For Equipment Using Active Opto-Electronic Protective Devices

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NIOZ7.GuideInfo

Electro-sensitive Protective Equipment Certified for Canada

[Industrial Control Equipment Certified for Canada] Electro-sensitive Protective Equipment Certified for Canada

See General Information for Industrial Control Equipment Certified for Canada

This category covers electro-sensitive protective equipment (ESPE) for the safeguarding of machinery. ESPE is applied to machinery that presents a risk of personal injury. It provides protection by causing the machine to revert to a safe condition before a person can be placed in a hazardous situation. In addition to fire and electric shock hazards, these devices have been investigated for their safety-related performance features.

ESPE is designated as a certain "Type" as shown in the individual Listings and as defined in IEC 61496-1, Safety Of Machinery-Electro-Sensitive Protective Equipment-Part 1: General Requirements And Tests. In addition, the individual Listings identify products that also have been investigated to UL 1998, the Standard for Safety Related Software.

This category does not specify the dimensions or configuration of the sensing zone and its disposition in relation to hazardous parts for any particular application, nor what constitutes a hazardous state of any machine. It is restricted to the functioning of the ESPE, the means by which it monitors the condition of the machine, and how it interfaces with the machine controls.

Products covered in this category may be relevant to applications other than those for the protection of persons, for example for the protection of machinery or products from mechanical damage. In those applications additional requirements may be necessary, for example when the materials that have to be recognized by the sensing function have different properties from those of persons.

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NIMX7.GuideInfo

Industrial Control Equipment Certified for Canada

Industrial Control Equipment Certified for Canada

Guide Information for Electrical Equipment for Use in Ordinary Locations Certified for Canada

The listing covers the following products:

Industrial Control Panels

Motor Control Centers

Motor Controllers

Miscellaneous Apparatus

Programmable Controllers

Industrial Control Switches

Industrial control equipment identified with an enclosure type designation or as "Rain tight" or "Rainproof" is intended for use as indicated in (AALZ7).

Industrial Control Equipment, is for use with copper conductors unless marked to indicate which terminals are suitable for use with aluminum conductors. Such marking is independent of any marking on terminal connectors and is on a wiring diagram or other readily visible location.

Industrial Control Equipment, for which accessory kits are available for the field or distributor modification of the basic product or which may be assembled in many forms from separate components are marked to indicate the suitable accessories or separate components which may be used.

If the sealed rating of the operating coil circuit of a magnetically operated industrial control device exceeds 125 volt-amperes, the coil circuit rating is marked on the device.

Overload relays or industrial control equipment incorporating overload relays are identified as to their maximum tripping time at 600 per cent of the overload relay current element trip rating. The designations "Class 10, Class 20, and Class 30" are used to identify the maximum tripping times, with the Class number indicating the maximum tripping time in seconds. Overload relays with maximum tripping times of 10 or 30 seconds are marked Class 10 or Class 30 respectively. Overload relays with a maximum tripping time of 20 seconds may be marked Class 20. Overload relays with tripping times in excess of 30 seconds are marked with their maximum tripping times. All unmarked overload relays have a maximum tripping time of 20 seconds.

There are open, across-the-line starters intended for bolt on mounting to panelboards and dead front switchboards and are so restricted by the Listing Mark. They are provided with a cover or door and the remaining portions of the enclosure are provided by the panel or switchboard enclosure.

Some industrial control equipment is suitable for use as service equipment and may be so marked. Such marking is part of the Listing Mark or is an integral part of other required markings.

Some industrial control equipment incorporates neutrals factory bonded to the frame or enclosure. Such units are marked "Suitable Only For Use As Service Equipment."

Open type across-the-line starters designed only for use in panelboards or dead front switchboards employ Listing Marks with the product identity "INDUSTRIAL CONTROL EQUIPMENT FOR USE IN PANELBOARDS AND DEAD FRONT SWITCHBOARDS" or "IND. CONT. EQ. FOR USE IN PANELBOARDS AND DEAD FRONT SWITCHBOARDS."

For other than industrial control panels, enclosed type product Listing Marks contain the product identity "INDUSTRIAL CONTROL EQUIPMENT" or the abbreviation "IND. CONT. EQ." on the enclosure, or the product identity "INDUSTRIAL CONTROL EQUIPMENT ENCLOSED" on the mechanism mounted within the enclosure. In either case, the Listing Mark indicates that the overall product with its enclosure is Listed.

Enclosures for use with open type products employ Listing Marks with the product identification "Enclosure For Industrial Control Equipment" or "Enclosure For Ind. Cont. Eq." and are marked to specify the Listed open type products to be installed within. Look for a Listing Mark on both the enclosure and the open mechanism.

The "Enclosed Industrial Control Panel" and "Industrial Control Panel" Listing Marks cover both the enclosure and the panel provided with it. Open panels employ the "Open Industrial Control Panel" Listing Mark. The "Industrial Control Panel Enclosure" Listing Mark covers only the enclosure; the compatibility of the enclosure and the installed equipment and associated wiring has not been investigated unless an "Enclosed Industrial Control Panel" Listing Mark is also present.

"Drip-proof" equipment is so constructed that falling moisture or dirt does not interfere with the successful operation of the equipment.

"Watertight" equipment is so constructed that water does not enter the enclosure when subjected to a stream of water.

Equipment classed "Drip-proof" or "Watertight" is marked to indicate this fact.

The basic standard used to investigate products in this category is CAN/CSA C22.2 No. 14-M91, Industrial Control Equipment.

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