Industrial Control Equipment for Use in Hazardous Locations] Industrial Control Panels and Assemblies for Use in Hazardous Locations, NNNY

<u>See General Information for Industrial Control Equipment for Use in Hazardous</u> Locations

GENERAL

This category covers Class I and II, Division 1 and 2 and Class III industrial control panels and assemblies consisting of enclosures and electrical components such as push-button stations, pilot lights, motor controllers, and receptacles with plugs. These panels and assemblies are additionally marked if intended for applications such as industrial machinery (including metalworking machine tools, power press controls, and plastic injection molding machinery), crane or hoist control, service equipment use, flame control of fossil-fuel-burning equipment (including incinerators, kilns and drying ovens), marine use, air conditioning and refrigeration equipment.

A single enclosure or a group of interconnected (modular) enclosures may be used for mounting the electrical components.

The enclosures making up a modular assembly are intended to be interconnected either at the factory or in the field by the user. Limitations on the interconnection of the enclosures are given on or with the product.

The electrical components are provided as part of the product and are intended to be installed either at the factory or in the field by the user.

It is intended that wiring between the electrical components of modular assemblies be field installed.

Lead wire seals are not required between the modular enclosures. However, conduit runs entering an assembly should be sealed in accordance with ANSI/NFPA 70, "National Electrical Code," unless factory-made seals are provided and the product is marked to so indicate.

Motor controllers incorporating thermal cutouts, thermal relays, or other devices for motor-running overcurrent protection are considered to be suitably protected against overcurrent due to short circuits or grounds by fuses or circuit breakers (overcurrent protective devices) having ratings not in excess of four times the full load current of the motors with which they are intended to be used.

Overload units of motor controllers are marked for identification for the particular ratings for which controllers are furnished. The manufacturer should be consulted with regard to

use of a controller for other certified ratings in order that proper overload units may be furnished. Motor controllers intended for across-the-line starting and for making and breaking the circuit when the motor is stalled are tested at rated voltage and at six times motor full load running current for ac horsepower ratings, and at 10 times motor full load running current for dc horsepower ratings.

Pilot lights without guards should be used only where not subject to breakage.

Receptacles with plugs included on certified assemblies have been subjected to endurance and overload operation tests in the presence of the specific flammable atmospheres for Class I locations and while heavily blanketed with combustible dust for Class II locations.

The plugs of the receptacle-plug combinations are for use with Type S, SO, ST or STO flexible cord with grounding conductor.

The flexible cord should be frequently inspected and replaced when necessary. Terminal connections to the cord must be properly made and maintained. Safe use also depends on the maintenance of insulation at current-carrying parts of the plug and receptacle. The devices should, therefore, not be used where the insulation may be impaired by moisture, dirt, or other foreign material.

Authorities Having Jurisdiction should be consulted with regard to conditions under which those assemblies having receptacles with plugs will be permitted for use. It is recognized that portable equipment should be used only where necessary.

LIMITED-PRODUCTION EQUIPMENT

This category also covers single pieces of equipment or equipment manufactured in a limited quantity under a single production run in accordance with UL's Limited Production Certification Program. This limited-production equipment meets all of the same requirements as equipment that may be produced under continuous production runs, except there is no ongoing surveillance (UL Follow-Up Service), since subsequent UL-certified production does not continue after the single run. UL certification is based on the serial number or other discrete identifier of the limited-production equipment, and not based on any model number. A UL Certificate of Compliance is also issued (see **UL CERTIFICATE** below).

PRODUCT IDENTITY

One of the following product identities appears on the product:

Control Assembly Body for Use in Hazardous Locations

Control Assembly Cover for Use in Hazardous Locations

Control Panel for Use in Hazardous Locations

The words "Hazardous Locations" may be abbreviated "Haz. Loc." or "HazLoc."

RELATED PRODUCTS

See:

Elevator Control Panels for Use in Hazardous Locations (FSNA)

Elevator Control Panels Relating to Hazardous Locations (<u>FSSA</u>)

Industrial Control Panels Relating to Hazardous Locations (NRBX)

ADDITIONAL INFORMATION

For additional information, see Industrial Control Equipment for Use in Hazardous Locations (NNGZ) and Equipment for Use in and Relating to Class I, II and III, Division 1 and 2 Hazardous Locations (AAIZ).

REQUIREMENTS

The basic unclassified locations standard used to investigate products in this category is ANSI/UL 508A, "Industrial Control Panels."

The basic hazardous (classified) locations standards used to investigate products in this category are referenced in Equipment for Use in and Relating to Class I, II and III, Division 1 and 2 Hazardous Locations (<u>AAIZ</u>).

UL MARK

The Certification Mark of UL on the product is the only method provided by UL to identify products manufactured under its Certification and Follow-Up Service. The Certification Mark for these products includes the UL symbol, the words "CERTIFIED" and "SAFETY," the geographic identifier(s), and a file number.

Alternate UL Mark

The Listing Mark of UL on the product is the only method provided by UL to identify products manufactured under its Listing and Follow-Up Service. The Listing Mark for these products includes the UL symbol (as illustrated in the Introduction of this Directory) together with the word "LISTED," a control number, and the product name "Control Assembly Body for Hazardous Locations,""Control Assembly Cover for Hazardous Locations" or "Control Panel for Hazardous Locations."

UL CERTIFICATE

A UL Certificate of Compliance is issued for limited-production equipment investigated under UL's Limited Production Certification Program. Issuance of a UL Certificate of Compliance indicates that UL has investigated a sample of the equipment and determined that it complies with the applicable requirements of this category. Each Certificate of Compliance is valid only for the individual units covered by the investigation and certification by UL.

At a minimum, each Certificate contains the following information:

- Certificate number
- · Certificate issue date
- Report reference
- Responsible company name and address
- Limited-production equipment serial number/discrete identifier
- Applicable standards

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The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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