

# UL 508

## Standard for Industrial Control Equipment

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### DETAILS

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- SCOPE

#### 1 Scope

1.1 These requirements cover industrial control devices, and devices accessory thereto, for starting, stopping, regulating, controlling, or protecting electric motors. These requirements also cover industrial control devices or systems that store or process information and are provided with an output motor control function(s). This equipment is for use in ordinary locations in accordance with the National Electrical Code, NFPA 70. These requirements do not include requirements for the evaluation of equipment intended for use in functional safety applications.

1.2 These requirements cover devices rated 1500 volts or less. Industrial control equipment covered by these requirements is intended for use in an ambient temperature of 0 – 40°C (32 – 104°F) unless specifically indicated for use in other conditions.

1.3 Examples of industrial control devices described in 1.1 are:

- a) Manual, magnetic, and solid-state starters and controllers.
- b) Thermal, magnetic, and solid-state overload relays.
- c) Pushbutton stations, including selector switches and pilot lights.
- d) Control circuit switches and relays.
- e) Float, flow, pressure, and vacuum-operated switches.
- f) Resistors and rheostats.
- g) Proximity switches.
- h) Time-delay relays and switches.

- i) Resistors and rheostats intended for industrial heating and lighting, including those for motor generator fields.
- j) Control devices intended for industrial heating and lighting.
- k) Solid-state time-delay relays.
- l) Programmable controllers.
- m) Numerical control systems.
- n) Lighting dimmer systems and controls.
- o) Mercury-tube switches.
- p) Definite purpose controllers.
- q) Solid-state logic controllers.
- r) Industrial microprocessor/computer systems.
- s) Variable voltage autotransformer.
- t) Motor starting autotransformer.

1.4 Industrial control panels are covered by the requirements in the Standard for Industrial Control Panels, UL 508A.

1.5 Fire pump controllers are covered by the requirements in the Standard for Fire Pump Controllers, UL 218.

1.6 An adjustable-speed drive and accessories or modules for use with an adjustable-speed drive are covered by the Standard for Power Conversion Equipment, UL 508C.

1.7 Equipment intended for use in hazardous locations as defined by the National Electrical Code, NFPA 70, are covered by the Standard for Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations, UL 1203.

1.8 Devices that regulate temperature and/or control refrigeration equipment are covered by the Standard for Temperature-Indicating and -Regulating Equipment, UL 873, and other applicable standards. Compliance with the Standard for Automatic Electrical Controls for Household and Similar Use, Part 1: General Requirements, UL 60730-1, and/or the applicable Part 2 standard from the UL 60730 series fulfills these requirements.

1.9 Electrical instruments are covered by the Standard for Electrical Analog Instruments— Panel Board Types, UL 1437.

1.10 Products consisting of interlocked controllers and similar assemblies, intended to transfer power to a common load or output between multiple inputs or sources, are covered by the Standard for Transfer Switch Equipment, UL 1008.

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