

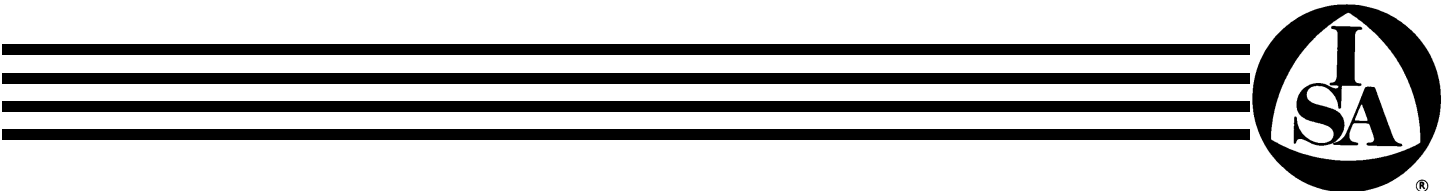
ISA-RP12.4-1996

Approved January 15, 1996

Recommended Practice



Pressurized Enclosures



ISA-RP12.4 — Pressurized Enclosures

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1 Scope

1.1 This recommended practice applies to equipment made suitable for use in hazardous (classified) locations by the use of a pressurizing system.

1.2 This recommended practice applies both to equipment with and without an internal release of a flammable gas or vapor.

1.3 This recommended practice does not apply to occupied portions of buildings such as ventilated or pressurized control rooms.

2 Purpose

2.1 This recommended practice provides guidance to those who design and install pressurized systems for hazardous (classified) locations, and should be used in conjunction with ANSI/NFPA 496, Purged and Pressurized Enclosures for Electrical Equipment.

2.2 This recommended practice provides performance and test recommendations so that the enclosure and components mounted internally or protruding through the enclosure are unlikely to cause ignition of a surrounding flammable atmosphere.

2.3 This recommended practice provides performance and test recommendations so that users are unlikely to be injured by rupture of the enclosure due to failure of the pressure-regulating devices in the PROTECTIVE GAS SUPPLY.

3 Definitions

NOTE — The following definitions are in accordance with ISA-S12.1-1991 and ANSI/NFPA 496-1993. Defined terms are shown as SMALL CAPS in the text.

3.1 alarm: A piece of equipment that generates a visual or audible signal that attracts attention.

3.2 flammable (explosive) limits: The flammable (explosive) limits of a gas or vapor are the lower (LFL or LEL) and upper (UFL or UEL) percentages by volume of concentration of gas in a gas-air mixture that will form an ignitable mixture. (Reference ANSI/NFPA 325M.)

3.3 hazardous (classified) location: A location in which fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, combustible dust, or easily ignitable fibers or flyings.

NOTE — For convenience, the term “hazardous (classified) location” is shortened to “HAZARDOUS LOCATION” throughout this document.