



IS/IEC 60079-11 - Explosive Atmospheres – Part 11: Equipment Protection by Intrinsic Safety “i”

This standard provides guidelines for safety in environments where explosive atmospheres are present, ensuring that electrical equipment does not cause an ignition. The primary purpose of this standard is to specify requirements for **intrinsic safety** (IS) protection techniques for electrical equipment in **hazardous areas**.

This standard specifies the construction and testing of intrinsically safe apparatus intended for use in explosive atmospheres, and for associated apparatus which is intended for connection to intrinsically safe circuits which enter such atmospheres. This Type of Protection is applicable to electrical equipment in which the electrical circuits themselves are incapable of causing ignition of a surrounding explosive atmosphere. This includes electrical equipment which contains circuits that are intrinsically safe only under certain conditions, for example under battery supply with mains supply removed.

This document is also applicable to electrical equipment or parts of electrical equipment located outside the explosive atmosphere or protected by another Type of Protection listed in IEC 60079-0, where the intrinsic safety of the electrical circuits in the explosive atmosphere may depend upon the design and construction of such electrical equipment or parts of such electrical equipment. The electrical circuits exposed to the explosive atmosphere are assessed for use in such atmospheres by applying this document.