1 Scope

This standard ~~part of IEC 60079~~ contains specific requirements for the construction, testing and marking of electrical equipment, parts of electrical equipment and Ex components in the type of protection powder filling “q”, intended for use in explosive gas atmospheres.

NOTE 1 Electrical equipment and Ex components protected by powder filling “q” may contain electronic circuits, transformers, protection fuses, relays, intrinsically safe electrical apparatus, associated electrical apparatus, switches, etc.

NOTE 2 Type of protection powder filling “q” provides equipment protection level (EPL) Gb. For further information, see Annex A.

This standard supplements and modifies the general requirements of ANSI/ISA-60079-0 ~~IEC 60079-0~~. Where a requirement of this standard conflicts with a requirement of ANSI/ISA-60079-0 ~~IEC 60079-0~~, the requirement of this standard will take precedence.

This standard applies to electrical equipment, parts of electrical equipment and Ex components with:

– a rated supply current less than or equal to 16 A;
– a rated supply voltage less than or equal to 1 000 V;
– a rated power consumption less than or equal to 1 000 W.

2 ~~Normative~~ references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

~~IEC 60079-0:2004, *Electrical apparatus for explosive gas atmospheres – Part 0: General requirements*~~

ANSI/ISA-60079-0 (12.00.01)-2005, Electrical apparatus for Use In Class I, Zones 0, 1, & 2 Hazardous (Classified) Locations General Requirements

~~IEC 60079-1, *Electrical apparatus for explosive gas atmospheres – Part 1: Flameproof enclosure “d”*~~

ANSI/ISA-60079-1 (12.22.01), Electrical apparatus for Use In Class I, Zone 1, Hazardous (Classified) Locations - Flameproof “d”

~~IEC 60079-7, E*xplosive atmospheres – Part 7: Equipment protection by increased safety "e"*~~

ANSI/ISA-60079-7 (12.16.01), Electrical apparatus for Use In Class I, Zone 1, Hazardous (Classified) Locations – Increased safety “e”

~~IEC 60079-11, E*xplosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"*~~

ANSI/ISA-60079-11 (12.02.01), Electrical apparatus for Use In Class I, Zone 1, Hazardous (Classified) Locations – Intrinsic safety “i”

ANSI/UL 2225, *Cables and Cable-Fittings For Use In Hazardous (Classified) Locations*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*