

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Explosive atmospheres –
Part 0: Equipment – General requirements**

**Atmosphères explosives –
Partie 0: Matériel – Exigences générales**

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EXPLOSIVE ATMOSPHERES –

Part 0: Equipment – General requirements

INTERPRETATION SHEET

This interpretation sheet has been prepared by committee 31: Equipment for explosive atmospheres, of IEC.

The text of this interpretation sheet is based on the following documents:

ISH	Report on voting
31/768/ISH	31/779/RVD

Full information on the voting for the approval of this interpretation sheet can be found in the report on voting indicated in the above table.

Subclauses 26.8 and 26.9 of IEC 60079-0 (2007)

Following the discussions by the TC 31/WG 22 Task Group addressing the repeatability of the thermal endurance to heat and thermal endurance to cold tests it was proposed that a tolerance be clarified for the test periods in Edition 6, 31/744/DC was issued and comments received and resolved as 31/752A/INF.

These interpretations are made available for edition 5 of this standard due to the current use of that standard by manufacturers, conformity assessment schemes and national bodies by means of this "Interpretation Sheet" as follows:

Details of interpretation:

Interpretation of subclause 26.8 Thermal endurance to heat and 26.9 Thermal endurance to cold of IEC 60079-0 (2007):

Question: As it is unreasonable to consider them to be the exact test time, are the time frames for the 24 h, 336 h (2 weeks) or 672 h (4 weeks) tests considered to be the minimum times? If so, what is the maximum time?

Interpretation: The 24 h, 336 h and 672 h values are considered the minimum number of hours for each of the tests. It is practical that the time periods should not extend beyond 24^{+2}_0 h, 336^{+30}_0 h, 672^{+30}_0 h.

It is intended that this interpretation will be introduced in IEC 60079-0 Edition 6 and therefore an Interpretation Sheet will not be required for this or future editions.

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC 60079-0
Edition 5.0 2007-10

EXPLOSIVE ATMOSPHERES –

Part 0: Equipment – General requirements

INTERPRETATION SHEET 2

This interpretation sheet has been prepared by IEC technical committee 31: Equipment for explosive atmospheres.

The text of this interpretation sheet is based on the following documents:

DISH	Report on voting
31/1453/DISH	31/1466/RVDISH

Full information on the voting for the approval of this interpretation sheet can be found in the report on voting indicated in the above table.

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Interpretation sheet of Subclause 16.5 of IEC 60079-0:2007

The TC 31/CAG requested (Resolution 2 of 2018-04-19) that WG 22 prepare an interpretation sheet based on IECEx Decision Sheet DS2018/002 addressing the assignment of entry point and branching point temperatures of electrical rotating machines.

This interpretation is made available for Edition 5 of this standard due to the current use of that standard by manufacturers, conformity assessment schemes and national bodies by means of this “Interpretation Sheet” as follows:

Details of interpretation:**IEC 60079-0:2007 (Ed. 5), Explosive atmospheres – Part 0: Equipment – General requirements****Interpretation of Subclause 16.5 Temperature at branching point and entry point:**

Question: Subclause 16.5 of IEC 60079-0:2007 (Ed. 5) states “When the temperature under rated conditions is higher than 70 °C at the entry point or 80 °C at the branching point of the conductors, information shall be marked on the equipment exterior to provide guidance to the user on the proper selection of cable and cable gland or conductors in conduit.”

It is not normal practice for electrical rotating machines to be tested with the cable entry devices and cables that might be used in an actual installation, but with the cables available at the manufacturer’s test area. In many cases, there will be no formal entry device as the cables will enter via the space reserved for fixing of a gland plate.

How shall the relevant entry point and branching point temperatures be determined?

Interpretation: *The use of the maximum internal air space temperature to represent the maximum service temperature of terminal box gaskets and seals, the cable branching point temperature, and the entry point temperature reflects the normal practice of testing electrical rotating machines without prior knowledge of the actual glands and cables to be used for installation. The production of heat from the electrical rotating machine connections is generally insignificant with respect to the production of heat from the machine windings and core.*

Further amplification:

- 1) The entry point of the cable where the temperature is measured should be sealed so far as possible to ensure that there is minimum air-circulation which can reduce the measured temperature.
- 2) This is not intended to apply to any gasket between the terminal box and the frame of the electrical rotating machine, where higher temperatures may be recorded, but only to the gasket between the terminal box and its lid.

Although written in the context of electrical rotating machines, there may be other types of equipment where an equivalent approach is applicable.

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EXPLOSIVE ATMOSPHERES –**Part 0: Equipment –
General requirements**

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International Standard IEC 60079-0 has been prepared by IEC technical committee 31: Equipment for explosive atmospheres.

This fifth edition cancels and replaces the fourth edition, published in 2004, and constitutes a full technical revision.

The significant changes with respect to the previous edition are listed below:

- Requirements for explosive dust atmospheres transferred from IEC 61241-0.
- The marking Group “II” alone has been replaced by “IIA”, “IIB”, or “IIC” as many of the enclosure requirements are now aligned with a specific sub-group.
- Dust groups defined as Group IIIA, IIIB and IIIC.
- Limits for ultrasonic and electromagnetic radiation introduced.