

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**IEC 60079-7**  
Edition 5.0 2015-06

**EXPLOSIVE ATMOSPHERES –**

**Part 7: Equipment protection by increased safety 'e'**

**INTERPRETATION SHEET 1**

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:

ISH	Report on voting
31/1258/ISH	31/1272/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.

[IEC 60079-7:2015/ISH1:2016](https://standards.iteh.ai/catalog/standards/iec/38aab3f5-6e15-4456-9d62-ce06b2b97326/iec-60079-7-2015-ish1-2016)

<https://standards.iteh.ai/catalog/standards/iec/38aab3f5-6e15-4456-9d62-ce06b2b97326/iec-60079-7-2015-ish1-2016>

**IEC 60079-7:2015 Edition 5.0, Explosive atmospheres – Part 7: Equipment protection by increased safety “e”**

**Question:**

Do the requirements given in 5.2.3 prohibit the use of a terminal box opened to the interior of a motor rated 1 kV or greater, provided the interior of the machine has an ingress protection of IP54 or greater?

**IEC 60079-7:2015 Edition 5.0**

**5.2.3 Degrees of protection provided by electrical machines, Level of Protection “ec”**

The requirements of 4.10 apply, except that terminal boxes attached to electrical machines operating at voltages up to 1 kV, may be opened to the interior of the machine, only when the degree of protection of the electrical machine is at least IP44. Covers and entries of the terminal box shall provide at least degree of protection IP54.

**Answer:**

No. As long as the interior of the machine has an ingress protection of IP54 or greater, determined in accordance with IEC 60079-0, there is no limitation to less than 1 kV. If the interior of the machine has an ingress rating of IP44 or lower, the use of a terminal box open to the interior of a motor rated 1 kV or greater is not permitted.

NOTE Many manufacturers opt to declare IP44 for the machine for certification purposes, whilst claiming a rating of IP54 or higher, by assessment, for contractual purposes in order to avoid the difficult testing required for certification of the IP of larger machines. As such, this additional IP rating need only comply with IEC 60529 or IEC 60034-5 as applicable, and not with any of the testing detailed in IEC 60079-0.

**iTeh Standards**  
**(<https://standards.iteh.ai>)**  
**Document Preview**

[IEC 60079-7:2015/ISH1:2016](https://standards.iteh.ai/catalog/standards/iec/38aab3f5-6ef5-4456-9d62-cc06b2b97326/iec-60079-7-2015-ish1-2016)

<https://standards.iteh.ai/catalog/standards/iec/38aab3f5-6ef5-4456-9d62-cc06b2b97326/iec-60079-7-2015-ish1-2016>