

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC 60079-15
Edition 4.0 2010-01

EXPLOSIVE ATMOSPHERES –

Part 15: Equipment protection by type of protection "n"

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
31/1259/ISH	31/1273/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 60079-15:2010 Edition 4.0, Explosive atmospheres – Part 15: Equipment protection by type of protection "n"

Question:

Do the requirements given in 8.3 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?

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8.3 Terminal boxes

Terminal boxes attached to machines operating at voltages up to 1 kV, may be opened to the interior of the machine, only when the IP rating of the machine is IP44 or higher. The external IP protection of the box shall be not less than IP54, as determined in accordance with IEC 60079-0.

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.

Witholdawm

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