

INTERNATIONAL ELECTROTECHNICAL COMMISSION

IEC 60079-11
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EXPLOSIVE ATMOSPHERES –

Part 11: Equipment protection by intrinsic safety "i"

INTERPRETATION SHEET 2

This interpretation sheet has been prepared by subcommittee 31G: Intrinsically-safe apparatus, of IEC technical committee 31: Equipment for explosive atmospheres.

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

DISH	Report on voting
31G/393/DISH	31G/398/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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Background

Table 22, "Rating and failure modes of PPTC devices used to limit current", includes ITRIP as a parameter requiring a safety factor of 1,0.

Question 1

Where Table 22 applies a safety factor of 1,0 for ITRIP, is external current limitation required to achieve the safety factor?

Answer 1

No. A PPTC may be considered to self-limit the current for the purpose of achieving the required safety factor. Faults still need to be applied according to Table 22.

Question 2

Does IEC 60079-11 permit a PPTC device to be used to limit current for the purpose of spark ignition compliance?

Answer 2

No. Subclause 7.16.3 only permits the use of a PPTC device to limit current for the purposes of thermal ignition compliance, power rating of components, and the determination of P_o .