INTERNATIONAL ELECTROTECHNICAL COMMISSION

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IEC 60079-1
Edition 7.0 2014-06

EXPLOSIVE ATMOSPHERES –

Part 1: Equipment protection by flameproof enclosures "d"

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:

DISH	Report on voting
31/1536/DISH	31/1542/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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IEC 60079-1:2014 Edition 7.0, Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d"

Question 1:

The requirements given in 13.1 of IEC 60079-1:2014 (Edition 7) restrict threaded entries for flameproof enclosures to only metric and NPT. Does this restriction represent a major technical change between IEC 60079-1:2014 (Edition 7) and IEC 60079-1:2007 (Edition 6)?

Answer 1:

Yes, the restriction to only metric and NPT regarding threaded entries for flameproof enclosures does represent a major technical change between IEC 60079-1:2014 (Edition 7) and IEC 60079-1:2007 (Edition 6). The requirements given in Clause 13 of IEC 60079-1:2007 (Edition 6) had no such normative restriction, with reference to metric and NPT only as examples of threaded entries for flameproof enclosures.

IEC 60079-1:2014-06/ISH1:2020-06(en)

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While IEC 60079-1:2014 (Edition 7) only permits the use of metric and NPT threads for entry into flameproof enclosures, cable glands/conduit entry devices, thread adapters and blanking elements are permitted to use other thread forms (see Annex C of IEC 60079-1:2014 (Edition 7)).

NOTE 1 The intention of the restriction to only metric and NPT regarding threaded entries for flameproof enclosures is to minimize the mismatch of thread forms in enclosure entries.

NOTE 2 In the Foreword of IEC 60079-1:2014 (Edition 7), the table detailing the significance of the changes between IEC 60079-1:2014 (Edition 7) and IEC 60079-1:2007 (Edition 6) mistakenly did not identify this metric and NPT restriction as a major technical change. Unfortunately, the IEC Directives do not permit a corrigendum to be issued to correct errors in non-normative text such as the table detailing the significance of changes.

Question 2:

Where a thread adapter is fitted and assessed as a factory-assembled part of the flameproof enclosure, what are the permitted thread forms?

Answer 2:

A thread adapter may use thread forms other than metric and NPT, whether as an Ex Equipment thread adapter or as a thread adapter fitted and assessed as a factory-assembled part of the flameproof enclosure (see Annex C of IEC 60079-1:2014 (Edition 7)).

Question 3:

Can a blanking element be installed in a thread adapter which is fitted and assessed as a factory-assembled part of the flameproof enclosure?

Answer 3:

Yes, the requirements given in Clause 13 of IEC 60079-1:2014 (Edition 7) regarding thread adapters are for separately certified Ex equipment thread adapters, not those fitted and assessed as a factory-assembled part of the flameproof enclosure.

Question 4:

What is the required marking when a thread adapter is fitted and assessed as a factory-assembled part of the flameproof enclosure?

Answer 4:

Clause 13 of IEC 60079-1:2014 (Edition 7) requires identification of the specific thread type and size of threaded entries into flameproof enclosures. In the case where the thread adapter is fitted and assessed as a factory-assembled part of the flameproof enclosure, the requirement for identification applies to the thread form of the adapter for the field wiring connection.