

Subject 2225

July 27, 2018

SUMMARY OF TOPICS

The following topics for the Standard for Safety for Cables and Cable-Fittings for Use in Hazardous (Classified) Locations, UL 2225, are being recirculated:

1. This proposal provides revisions to the proposal document dated March 30, 2018 for Cable fittings for Class II, Division 1 only including the construction, testing, marking requirements per comments received.

COMMENTS DUE: AUGUST 27, 2018

For your convenience in review, proposed additions to the previously proposed requirements dated March 30, 2018 are shown underlined and proposed deletions are shown ~~lined-out~~.

1. This proposal provides revisions to the proposal document dated March 30, 2018 for Cable fittings for Class II, Division 1 only including the construction, testing, marking requirements per comments received.

RATIONALE

Responses to comments have been posted within the subject # 2225 Proposal Review Work Area dated March 30, 2018.

PROPOSAL

PART II - EXPLOSIONPROOF CABLE SEALING FITTINGS AND DUST-IGNITIONPROOF CABLE SEALING FITTINGS

12.1 Cable-sealing Explosionproof cable sealing fittings and dust ignitionproof cable fittings shall comply with the applicable construction requirements in the Standard for Conduit, Tubing, and Cable Fittings, UL 514B, ~~and with in addition to the construction requirements in this standard, except as modified by this standard.~~ Where requirements conflict, the requirements in this standard shall apply.

14.2 Non-metal parts relied upon to create compression to maintain the bonding path between the cable fitting and the Type MC metal-clad cable armor shall be determined to comply with the Current †Test requirements of the Standard for Conduit, Tubing, and Cable Fittings, UL 514B after being aged. †The Air-Oven aging temperature shall; ~~using~~ the maximum rated temperature of the cable fitting as the maximum service temperature of the cable fitting, in accordance with the Table 4.3 of Standard for Gaskets and Seals, UL 157.

17.1 A seal shall be provided between the end of the ~~connector~~ fitting intended for the connection of the cable and the end of the ~~connector~~ fitting intended for connection to the explosionproof or flameproof equipment as indicated in 17.2 – 17.5.

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36.8.1.2 The samples shall each satisfy the requirements shown in Table 36.1.

Table 36.1
Level of protection, equipment group and ingress protection (IP) relationship

Intended Zone of Application	Zone 20	Zone 21	Zone 22
Type of Protection	"ta"	"tb" or "tD"	"tc" or "tD"
Ingress Test	IP6X	IP6X	IP5X

Intended Zone of Application	Level of Protection	Group IIIC	Group IIIB	Group IIIA
<u>Zone 21</u>	<u>"tb" or "tD"</u>	<u>IP6X</u>	<u>IP6X</u>	<u>IP5X</u>
<u>Zone 22</u>	<u>"tc" or "tD"</u>	<u>IP6X</u>	<u>IP5X</u>	<u>IP5X</u>

37.3 AEx marking for explosive gas atmospheres shall be marked with the following:

- a) Class I;
- b) The applicable Zone marking - i.e. Zone 0, Zone 1, or Zone 2;
- c) The symbol AEx;
- d) The symbol for each type of protection used:
 - 1) "d" or "db": flameproof;
 - 2) "e" or "eb": increased safety;
- e) The symbol of the group:
 - 1) IIA, IIB or IIC for electrical equipment for places with an explosive gas atmosphere other than mines susceptible to firedamp.
 - 2) When the electrical equipment is for use only in a particular gas, the chemical formula or the name of the gas in parentheses.
 - 3) When the electrical equipment is for use in a particular gas in addition to being suitable for use in a specific group of electrical equipment, the chemical formula shall follow the group and be separated with the symbol "+", for example, "IIB + H₂".
- f) For flameproof cable sealing fittings for use in Groups IIA, IIB, or IIC classified locations. The minimum ambient temperature rating when less than minus 20°C (minus 4°F).

The markings a) to e) shall be placed in the order in which they are given and shall each be separated by a small space.

To avoid the risk of explosion due to confusion with explosionproof cord and cable fittings marked "Class I, Division 2" in accordance with 37.2, cord or cable fittings complying only with the requirements for flameproof "d" or increased safety "e" cable fittings shall not be additionally marked "Class I, Division 2".

NOTE In accordance with NEC Article 501, cable sealing fittings marked "d" or "e" are permitted to be used for the connection of general purpose assemblies acceptable for Class I, Division 2 locations.