b. PVC-coated RMC, factory elbows, and associated fittings
c. PVC-coated IMC, factory elbows, and associated fittings
d. In restricted industrial establishments, Schedule 80 PVC conduit, factory elbows, and associated fittings

(7) Optical fiber cable Type OFNP, Type OFCP, Type OFNR, Type OFCR, Type OFNG, Type OFCG, Type OFN, or Type OFC installed in cable trays or any other raceway in accordance with 501.10(B). Optical fiber cables shall be sealed in accordance with 501.15.
(8) Cablebus.
(9) In restricted industrial establishments, listed Type P cable with or without metal braid armor, with an overall jacket, and terminated with fittings listed for the location when entering explosionproof, flameproof, or pressurized equipment. The cable shall be installed in accordance with Part II of Article 337.

Informational Note No. 2: See ANSI/UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable.

Informational Note No. 3: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of cable fittings.

Δ **(2) Flexible Connections.** If flexibility is necessary to minimize the transmission of vibration from equipment during operation or to allow for movement after installation during maintenance, one or more of the following shall be permitted:

(1) Listed flexible metal fittings
(2) Flexible metal conduit with listed fittings and bonded in accordance with 501.30(B)
(3) Interlocked armor Type MC cable with listed fittings
(4) Liquidtight flexible metal conduit with listed fittings and bonded in accordance with 501.30(B)
(5) Liquidtight flexible nonmetallic conduit with listed fittings
(6) Flexible cord listed for extra-hard usage and terminated with listed fittings, with a conductor for use as an equipment grounding conductor
(7) For elevator use, an identified elevator cable of Type EO, Type ETP, or Type ETT, shown under the "use" column in Table 400.4 for "hazardous (classified) locations" and terminated with listed fittings
(8) In restricted industrial establishments, listed Type P cable with or without metal braid armor, with an overall jacket, terminated with listed fittings and installed in accordance with Part II of Article 337

Where necessary, limited flexibility is provided through use of wiring methods with listed fittings such as flexible metal conduit (FMC), liquidtight flexible metal conduit (LFMC), and extra-hard-usage flexible cord. However, the fittings are not required to be specifically identified for Class I locations.

See also

501.10(A)(2) and its commentary for more information on flexible connections

(3) Nonincendive Field Wiring. Nonincendive field wiring shall be permitted using any of the wiring methods permitted for unclassified locations. Nonincendive field wiring systems shall be installed in accordance with the control drawing(s). Simple apparatus, not shown on the control drawing, shall be permitted in a nonincendive field wiring circuit if the simple apparatus does not interconnect the nonincendive field wiring circuit to any other circuit.

Informational Note: See Article 100 for the definition of *simple apparatus*.

Separate nonincendive field wiring circuits shall be installed in accordance with one of the following:

(1) In separate cables
(2) In multiconductor cables where the conductors of each circuit are within a grounded metal shield
(3) In multiconductor cables or in raceways, where the conductors of each circuit have insulation with a minimum thickness of 0.25 mm (0.01 in.)

Although many low-voltage, low-energy circuits, including some communications circuits and thermocouple circuits, are of the nonincendive type, a Class 2 or Class 3 circuit, as defined in Article 725, is not necessarily nonincendive.

See also

Article 100 for the definitions of the terms *nonincendive circuit* and *nonincendive field wiring*

(4) Boxes and Fittings. Boxes and fittings shall be explosionproof if required by 501.105(B)(2), 501.115(B)(1), or 501.150(B)(1).

Informational Note No. 1: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of cable for entry into enclosures required to be explosionproof.

Informational Note No. 2: See ANSI/UL 1203, *Explosion-Proof and Dust-Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of explosionproof conduit fittings for entry into enclosures required to be explosionproof.

In Class I, Division 2 locations, boxes, fittings, and joints are not required to be explosionproof if they contain no arcing devices. They also are not required to be explosionproof for lighting outlets or enclosures containing nonarcing devices (such as solid-state relays, solenoids, and control transformers), if the maximum operating temperature of any exposed surface does not exceed 80 percent of the ignition temperature.

501.15 Sealing and Drainage. Seals in conduit and cable systems shall comply with 501.15(A) through (F). Sealing compound shall be used in Type MI cable termination fittings to exclude moisture and other fluids from the cable insulation.

Commentary Table 501.1 summarizes the sealing requirements of 501.15(A) through (F).