in Table 400.4 for "hazardous (classified) locations" and terminated with listed dusttight fittings

(7) In restricted industrial establishments, listed Type P cable with metal braid armor, with an overall jacket, that is terminated with fittings listed for the location and installed in accordance with Part II of Article 337

Informational Note: See UL 1309A, *Outline of Investigation for Cable for Use in Mobile Installations*, for information on construction, testing, and marking of Type P cable.

(4) 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 where the conductors of each circuit have insulation with a minimum thickness of 0.25 mm (0.01 in.)

Δ **(B) Class III, Division 2.** Wiring methods in Class III, Division 2 locations shall be in accordance with the following:

(1) The wiring shall comply with 503.10(A).
(2) In sections, compartments, or areas that do not contain machinery and are used solely for storage, open wiring on insulators shall be permitted where installed in accordance with Part II of Article 398, including the condition required by 398.15(C) that protection be provided where conductors are not run in roof spaces and are well out of reach of sources of physical damage.

503.25 Uninsulated Exposed Parts, Class III, Divisions 1 and 2. There shall be no uninsulated exposed parts, such as electrical conductors, buses, terminals, or components, that operate at more than 30 volts (15 volts in wet locations). These parts shall additionally be protected by a protection technique according to 500.7(E), (F), or (G) that is suitable for the location.

Exception: As provided in 503.155.

Exposed live parts are permitted in Class III, Division 1 and 2 locations provided the voltage does not exceed 30 volts in dry locations or 15 volts in wet locations. Protection techniques permitted for these parts are intrinsically safe or nonincendive. These techniques limit the circuit's energy to a level incapable of causing ignition of the hazardous area.

Δ **503.30 Grounding and Bonding.** Regardless of the voltage of the electrical system, wiring systems and equipment shall comply with 503.30(A) and (B).

N **(A) Grounding.** Wiring systems and equipment shall be grounded in accordance with Part I and Part VI of Article 250, as applicable.

Δ **(B) Bonding.** Bonding shall comply with Part I and Part V of Article 250, as applicable, and 503.30(B)(1) and (B)(2).

N **(1) Specific Bonding Means.** Bonding shall comply with 503.30(B)(1)(a) and (B)(2)(b).

(a) The locknut-bushing and double-locknut types of contacts shall not be depended on for bonding purposes, but bonding jumpers with identified fittings or other approved means of bonding shall be used. These bonding means shall apply to all metal raceways, fittings, boxes, cable trays, and enclosures, and other parts of raceway systems between hazardous (classified) locations and the point of grounding for service equipment or point of grounding for a separately derived system. Metal struts, angles, or channels provided for support and mechanical or physical protection as permitted in 335.4(5), 336.10(7)(c), or 722.135(C) shall be bonded in accordance with 250.102.

(b) Where the branch-circuit overcurrent protection is located on the load side of the disconnecting means, the specific bonding means shall be permitted to end at the nearest point where the grounded circuit conductor and the grounding electrode conductor are connected together on the line side of the building or structure disconnecting means as specified in 250.32(B).

The requirements for enhanced bonding in Class III locations are the same as those for Class I and Class II locations.

See also

501.30(B)(1) and its commentary for more information on grounding and bonding requirements

250.100 for additional requirements applying to bonding in hazardous locations

N **(2) Liquidtight Flexible Metal Conduit.** Liquidtight flexible metal conduit shall comply with 503.30(B)(2)(a) and (B)(2)(b).

(a) Liquidtight flexible metal conduit shall include an equipment bonding jumper of the wire type in accordance with 250.102.

(b) In Class III locations, the bonding jumper shall not be required where all of the following conditions are met:

(1) Listed liquidtight flexible metal conduit 1.8 m (6 ft) or less in length, with fittings listed for grounding, is used.
(2) Overcurrent protection in the circuit is limited to 10 amperes or less.
(3) The load is part of a meter, instrument, or relay circuit.

Part III. Equipment

503.100 Transformers and Capacitors — Class III, Divisions 1 and 2. Transformers and capacitors shall comply with 502.100(B).