

(A) Class I, Division 1.

- Δ **(1) General.** In Class I, Division 1 locations, the following wiring methods shall be permitted:

Informational Note No. 1: See Article 100 for the definition of *restricted industrial establishment [as applied to hazardous (classified) locations]*.

- (1) Threaded rigid metal conduit (RMC) or threaded intermediate metal conduit (IMC), including RMC or IMC conduit systems with supplemental corrosion protection coatings.
- (2) PVC conduit, RTRC conduit, or HDPE conduit, where encased in a concrete envelope a minimum of 50 mm (2 in.) thick and provided with not less than 600 mm (24 in.) of cover measured from the top of the conduit to grade. The concrete encasement shall be permitted to be omitted where it is in accordance with 514.8(C) or 515.8(A). RMC or IMC conduit shall be used for the last 600 mm (24 in.) of the underground run to emergence or to the point of connection to the aboveground raceway. An equipment grounding conductor shall be included to provide for electrical continuity of the raceway system and for grounding of non-current-carrying metal parts.
- (3) Type MI cable terminated with fittings listed for the location. Type MI cable shall be installed and supported to avoid tensile stress at the termination fittings.

A termination fitting used in a Division 1 location with Type MI cable must be specifically listed for use in Class I, Division 1 hazardous locations. Exhibit 501.1 shows an example of this type of cable and fitting in which the screw-on pot contains field-installed sealing compound to seal the end of the cable. The threaded gland has threads for connection to explosion-proof enclosures.

- (4) In restricted industrial establishments, Type MC-HL cable listed for use in Class I, Zone 1 or Division 1 locations, with a gas/vaportight continuous corrugated metallic sheath, an overall jacket of suitable polymeric material, and a separate equipment grounding conductor(s) in accordance with 250.122, and terminated with fittings listed for the application. If installed in a ladder, ventilated trough,

or ventilated channel cable tray, the cable shall be installed in accordance with 392.22. Type MC-HL cable shall be installed in accordance with Part II of Article 330.

- (5) In restricted industrial establishments, Type ITC-HL cable listed for use in Class I, Division 1 or Zone 1 locations, with a gas/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material, terminated with fittings listed for the application, and installed in accordance with 335.4.
- (6) Optical fiber cable Type OFNP, Type OFCP, Type OFNR, Type OFCR, Type OFNG, Type OFCG, Type OFN, or Type OFC installed in raceways in accordance with 501.10(A). These optical fiber cables shall be sealed in accordance with 501.15.
- (7) In restricted industrial establishments for applications limited to 600 volts nominal or less, and where the cable is not subject to physical damage and is terminated with fittings listed for the location, Type TC-ER-HL cable. If installed in a ladder, ventilated trough, or ventilated channel cable tray, the cable shall be installed in accordance with 392.22. Type TC-ER-HL cable shall be listed for use in Class I, Division 1 or Zone 1 locations and shall be installed in accordance with 336.10.

Informational Note No. 2: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of cables and cable fittings.

- (8) In restricted industrial establishments, listed Type P cable with metal braid armor and an overall jacket, terminated with fittings listed for the location, and installed in accordance with Part II of Article 337. If installed in a ladder, ventilated trough, or ventilated channel cable tray, the cable shall be installed in accordance with 392.22.

Informational Note No. 3: See 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. 4: See ANSI/UL 2225, *Cables and Cable-Fittings for Use in Hazardous (Classified) Locations*, for information on construction, testing, and marking of cable.

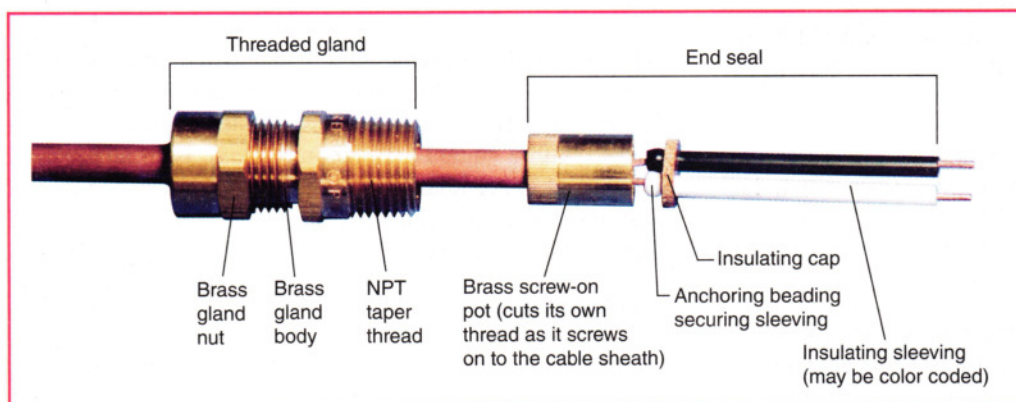


EXHIBIT 501.1 Type MI cable and fitting listed for use in hazardous locations. (Courtesy of Tyco Thermal Controls)