N ***TABLE 505.9(D)*** *Temperature Classification Marking of Maximum Surface Temperature for Group II Electrical Equipment*

Temperature Class (T Code)	Maximum Surface Temperature (°C)
T1	≤450
T2	≤300
T3	≤200
T4	≤135
T5	≤100
T6	≤85

Electrical equipment designed for use in the ambient temperature range between −20°C and +40°C shall require no ambient temperature marking.

Electrical equipment that is designed for use in a range of ambient temperatures other than −20°C to +40°C is considered to be special; and the ambient temperature range shall then be marked on the equipment, including either the symbol "Ta" or "Tamb" together with the special range of ambient temperatures, in degrees Celsius.

Informational Note No. 2: For example, such a marking might be "−30°C to +40°C."

Exception No. 1: Equipment of the non–heat-producing type, such as conduit fittings, and equipment of the heat-producing type having a maximum temperature of not more than 100°C (212°F) shall not be required to have a marked operating temperature or temperature class.

Exception No. 2: Equipment identified for Class I, Division 1 or Division 2 locations as permitted by 505.20(A), (B), and (C) shall be permitted to be marked in accordance with 505.8(C) and Table 500.8(C)(4).

• **(E) Threading.** The supply connection entry thread form shall be NPT or metric. Conduit and fittings shall be made wrenchtight to prevent sparking when fault current flows through the conduit system, and to ensure the explosionproof or flameproof integrity of the conduit system where applicable. Equipment provided with threaded entries for field wiring connections shall be installed in accordance with 505.9(E)(1) or (E)(2) and with (E)(3).

Δ **(1) Equipment Provided with Threaded Entries for NPT Threaded Conduit or Fittings.** For equipment provided with threaded entries for NPT threaded conduit or fittings, listed conduit, listed conduit fittings, or listed cable fittings shall be used.

All NPT threaded conduit and fittings shall be threaded with a National (American) Standard Pipe Taper (NPT) thread.

NPT threaded entries into explosionproof or flameproof equipment shall be made up with at least five threads fully engaged.

Exception: For listed explosionproof or flameproof equipment, factory-threaded NPT entries shall be made up with at least 4½ threads fully engaged.

Informational Note No. 1: See ASME B1.20.1, *Pipe Threads, General Purpose (Inch)*, for thread specifications for male NPT threads.

Informational Note No. 2: See ANSI/UL 60079-1, *Explosive Atmospheres — Part 1: Equipment Protection by Flameproof Enclosures "d"*, and ASME B1.20.1, *Pipe Threads, General Purpose (Inch)*, for information on female NPT threaded entries using modified National Standard Pipe Taper (NPT) thread.

Δ **(2) Equipment Provided with Threaded Entries for Metric Threaded Conduit or Fittings.** For equipment with metric threaded entries, listed conduit fittings or listed cable fittings shall be used. Such entries shall be identified as being metric, or listed adapters to permit connection to conduit or NPT threaded fittings shall be provided with the equipment and shall be used for connection to conduit or NPT threaded fittings.

Metric threaded fittings installed into explosionproof or flameproof equipment entries shall have a class of fit of at least 6g/6H and be made up with at least five threads fully engaged.

Informational Note: See ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data*, and ISO 965-3, *ISO general purpose metric screw threads — Tolerances — Part 3: Deviations for constructional screw threads*, for threading specifications for metric threaded entries.

Listed fittings must be used with metric threaded entries to ensure the integrity of the conduit system. In addition, either the entries must be identified as being metric or adapters must be provided for making connection to NPT (National Pipe Taper) fittings. Exhibit 505.2 is an example of an adapter that provides a means of connecting conduit or fitting with NPT threads to a Type "e" (increased safety) enclosure that has metric threads.

(3) Unused Openings. All unused openings shall be closed with blanking elements or close-up plugs that are listed for the location and will maintain the type of protection. Thread engagement shall comply with 505.9(E)(1) or (E)(2).

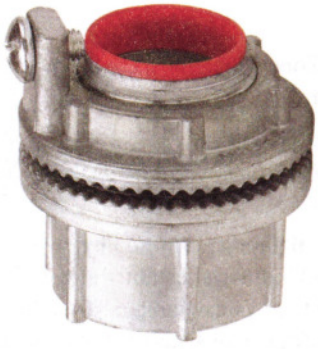

EXHIBIT 505.2 A typical hub providing an NPT-threaded entry for conduit or cable into an increased safety enclosure. *(Courtesy of Eaton, Crouse-Hinds Division)*