

COMMENTARY TABLE 501.1 Conduit and Cable Sealing Requirements

Classification	Application	Location of Seal
Conduit Seals Class I, Division 1	Switch enclosure	In conduit run within 18 in. of enclosure.
	Circuit breaker enclosure	
	Fuse enclosure	
	Relay enclosure	
	Resistor enclosure	
	Arcing or sparking apparatus	
	High-temperature apparatus	
	Explosionproof enclosure containing arcing or sparking contacts that are hermetically sealed against gas or vapor entry	In conduit runs smaller than trade size 2, no seal is required. If conduit is trade size 2 or larger, in conduit run within 18 in. of enclosure.
	Explosionproof enclosure containing arcing or sparking contacts that are immersed in oil, in accordance with 501.115(B)(1)(2)	
	Enclosure containing terminals, splices, or taps; fitting containing terminals, splices, or taps	In conduit runs smaller than trade size 2, no seal is required. If conduit is trade size 2 or larger, in conduit run within 18 in. of enclosure.
Class I, Division 2	Two explosionproof enclosures with a conduit run between them of 36 in. or less	In conduit run within 18 in. of each enclosure. Permitted to use a single seal in each run as long as the seal is within 18 in. of each enclosure.
	Two explosionproof enclosures with a conduit run between them greater than 36 in.	In conduit run within 18 in. of each enclosure.
	Conduit run leaving Division 1 location	Within 10 ft of either side of boundary. No unions, couplings, boxes, or fittings (other than explosionproof reducers) permitted between the seal fitting and the point where the conduit leaves the Division 1 location.
	Metal conduit containing no unions, couplings, boxes, or fittings that passes completely through a Class I, Division 1 location, with no fittings less than 12 in. beyond each boundary	Not required to be sealed if the termination points of the unbroken conduit are in unclassified locations.
	Enclosure required to be explosionproof	Seal as required for similar equipment in Division 1 location.
	Conduit run leaving Division 2 location	Within 10 ft of either side of boundary. No unions, couplings, boxes, or fittings (other than explosionproof reducers) permitted between the seal fitting and the point where the conduit leaves the Division 2 location. Not required to be explosionproof seal.
	Metal conduit containing no unions, couplings, boxes, or fittings that passes completely through a Division 2 location with no fittings less than 12 in. beyond each boundary	Not required to be sealed if the termination points of the unbroken conduit are in unclassified locations.
Cable Seals Class I, Division 1	Conduit systems terminating at an unclassified location where a wiring method transition is made to cable tray, cablebus, ventilated busway, Type MI cable, or open wiring	Not required to be sealed if passing from the Class I, Division 2 location into an outdoor unclassified location or an indoor location if the conduit system is all in one room. The conduits do not terminate at an enclosure containing an ignition source in normal operation.
	Conduit leaving a purged enclosure or room that is unclassified due to pressurization and entering a Division 2 location	Not required to be sealed at the boundary.
	Enclosure with integral seal	Conduit seal fitting not required.
	Multiconductor Type MC-HL cables with a gastight/vaportight continuous corrugated metallic sheath and an overall jacket of suitable polymeric material	Seal at all terminations with a listed fitting after removing the jacket and any other covering, so that the sealing compound surrounds each individual insulated conductor.
	Cables in conduit with a gastight/vaportight continuous sheath capable of transmitting gases or vapors through the cable core	Seal in the Division 1 location after removing the jacket and any other coverings, so that the sealing compound surrounds each individual insulated conductor and the outer jacket.

(continues)