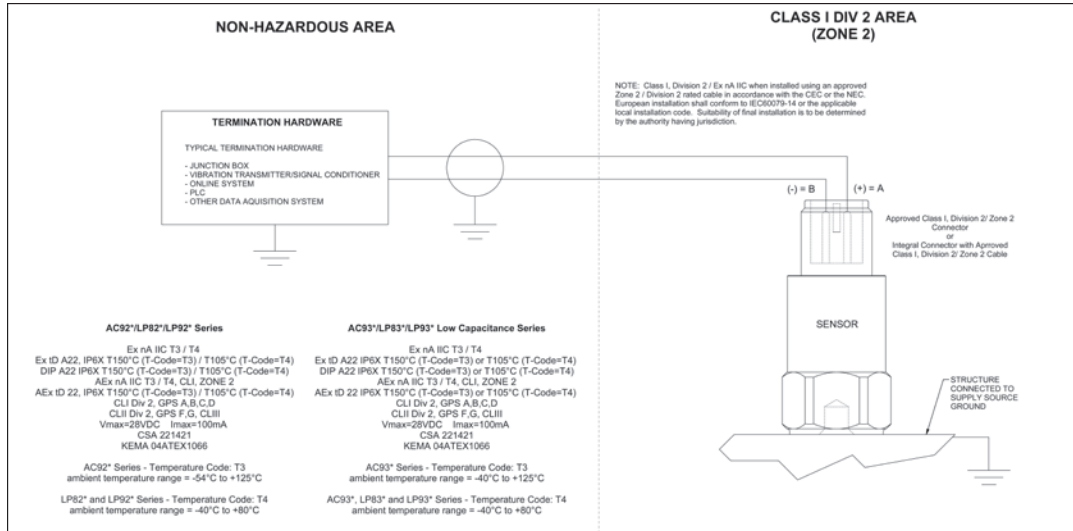


# Low Capacitance Class I, Division 2/Zone 2 Control Drawing & Overview

**For AC93X Series**

## Class I, Division 2/Zone 2 Control Drawing



## Overview & Requirements

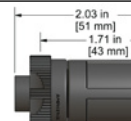
An area in which the fire or explosion hazard exists infrequently and for short periods, is the designation given to a Class I, Division 2/Zone 2 location. One suitable protection technique for a sensor in a Class I, Division 2/Zone 2 location is “Non-arcing/Non-sparking” for use without a barrier.

The following are a few guidelines to be used when installing CTC sensors in a Class I Division 2/Zone 2 location:

- AC93X, LP83X & LP93X sensors **must utilize approved Class I Division 2/Zone 2 cable** (such as CB190).
- AC93X, LP83X & LP93X sensors **must utilize approved Class I Division 2/Zone 2 connectors** (such as the D2Q).
- Approved connector **must be mechanically locked or safety wired** on the sensor end of the cable.
- Cable conductors must be wired directly to the termination point.
- Cable shield to be grounded at termination hardware.
- Sensor must be stud mounted.
- Suitability of final installation is to be determined by the authority having local jurisdiction.

## Accessories

**D2Q** Class I, Division 2/Zone 2, 2 Socket MIL connector with backshell and safety wire tie-off



**CB190** Class I, Division 2/Zone 2, twisted, shielded pair, blue thermoplastic elastomer (TPE) jacketed, 2 conductor cable



**CB206** Class I, Division 2/Zone 2, twisted, shielded pair, red Teflon® with Stainless Steel Armor Cover, 2 conductor cable



**Cable Assemblies:** CB190-D2Q-XXX-Z\* Class I, Division 2/Zone 2, TPE jacketed cable, 2 socket MIL connector with backshell

\* XXX = cable length

## Regulatory Approvals & Requirements

**Regulatory Approvals US & Canada:**



Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G; Class III  
Temperature Code T3; ambient temperature range -40°C to +125°C  
Temperature Code T4; ambient temperature range -40°C to +80°C  
Canada: Ex nA IIC T3/T4; DIP A22 IP6X T150°C (T-Code = T3) or T105°C (T-Code = T4)  
USA: AEx nA IIC T3/T4, Class I, Zone 2; AEx ID 22, IP6X T150°C (T-Code = T3) or T105°C (T-Code = T4)

**ATEX:**



II 3 G/D

Ex nA IIC T3/T4 – Ex ID A22 IP6X T150°C/T105°C  
Temperature Code T3; ambient temperature range -40°C to +125°C  
Temperature Code T4; ambient temperature range -40°C to +80°C

**Requirements**

- Energy limiting barrier not required with Class I, Division 2/Zone 2 sensors
- Must be used in combination with Class I, Division 2/Zone 2 approved cable (such as CB190) and connector (such as D2Q). Please refer to “Class I, Division 2/Zone 2 Series Control Drawing” (above); in accordance with CEC or the NEC
- Case of sensor must be grounded. Please refer to “Class I, Division 2/Zone 2 Series Control Drawing” (above)
- Suitability of final installation is to be determined by the authority having local jurisdiction