

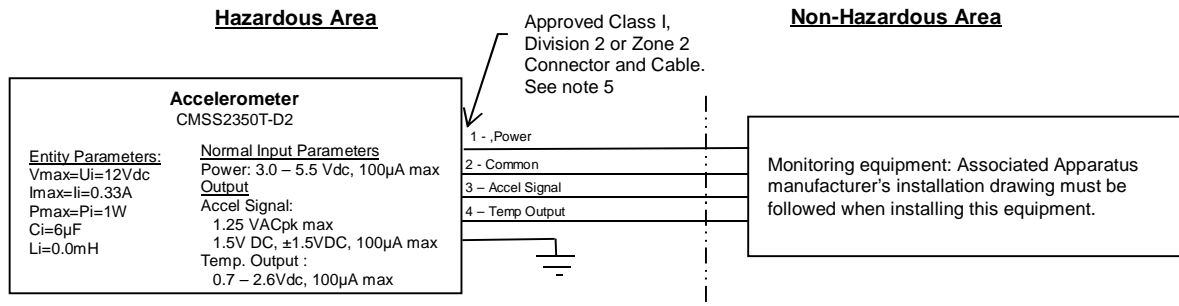


## Division 2/Zone 2 Hazardous Area Installation Instructions, Model CMSS2350T-D2

The following instructions apply to the accelerometer covered by certificate numbers CSA 2706317 and Sira 14ATEX4096X:

This instruction describes important installation requirements that must be followed to assure a safe installation of the CMSS2350T-D2 in hazardous (classified) locations, hazardous locations or hazardous areas. For brevity, the term hazardous area will be used in this instruction. It is assumed that the user of this accelerometer has an understanding of the principles of hazardous areas safety and of their own particular hazardous environment. This instruction is not intended to be a source of general information on hazardous areas, but only provide important information of particular concern when installing Meggitt (Maryland), Inc. accelerometers in hazardous areas. The accelerometers have been evaluated and assured compliance to CSA Standard C22.2 No. 213-M1987(R2013), CAN/CSA C22.2 No. 60079-0:11, CAN/CSA C22.2 No. 60079-15:12, ANSI/ISA 12.12.01-2013, EN 60079-0:2012, IEC 60079-0:2011, EN 60079-15:2010 and IEC 60079-15:2010.

### Installation Diagram



### Certifications:

CSA, Canada & U.S.	ATEX
Class I Div 2, Groups A,B,C,D Class II Div 2, Groups E,F,G Class III Div 2 Class I Zone 2 AEx/Ex nL IIC T5 -50°C ≤ Ta ≤ 85°C	Sira 14ATEX4096X Ex nA nC IIC T5 Gc -50°C ≤ Ta ≤ 85°C II 3 G

**⚠ WARNING—EXPLOSION HAZARD—Do not connect/disconnect while circuit is live unless area is known to be nonhazardous**

**⚠ AVERTISSEMENT—risque d'EXPLOSION—ne pas connecter/déconnecter tandis que le circuit est sous tension, sauf si l'environnement est classé non dangereux**

### Notes:

- The installation of the accelerometer must comply with all the requirements in the system diagram in this document including that the monitoring equipment provides a nonincendive circuit to the accelerometer where the power source and signal inputs have a maximum open circuit voltage of 12Vdc, a maximum short circuit current of 0.33A (when shorted to either supply common or to earth ground) and a maximum power output of 1.0W.
- The accelerometer must be mounted to the equipment to be monitored using the techniques in 78013. The surface should be clean and flat with the required tapped hole. Before mounting accelerometers with studs, apply a thin coating of light machine oil or grease to the mounting surface. The equipment being monitored must have a mass equal to or greater than 50lbs.
- The entity concept allows the interconnection of the accelerometer with entity parameters to associated apparatus when: Voc or Uo or Vt ≤ Vmax, Isc or Io or It ≤ Imax, Ca or Co ≥ Ci + Ccable, La or Lo ≥ Li + Lcable, and Po ≤ Pi.
- The installation must comply with installation requirements of the country of use. Installation in the U.S. should be in accordance with the National Electrical Code (ANSI/NFPA 70) sections 504 and 505. Installation in Canada should be in accordance with the Canadian Electrical Code, CSA C22.1, Part 1, Appendix F., Installation in the European Community per EN60079-14.
- The mating connection must be made using an M12 connector in compliance with IEC 61076-2-101. This standard requires that the connectors be kept from separating by the use of a lock nut on the mating connection. The connector must have a minimum creepage distance of 1.0 mm between adjacent contacts and a minimum distance of 0.2 mm through the solid insulation between adjacent contacts. The socket must be designed to maintain positive compressive force on the connector pin with a minimum diameter of 0.889 mm.



6. The equipment does not incorporate an earth bonding facility. It is the responsibility of the user to ensure that earth continuity is maintained, for example, by means of the mounting arrangement.
7. To limit the supply current to a maximum of 100  $\mu$ A, both the accelerometer output and the temperature output must be connected to input circuits with a minimum impedance of 150,000 ohms.
8. The 5.5 V rated supply shall be protected such that transients are limited to a maximum of 90 V.
9. When the cable connector is removed, the pins of the Accelerometer must be protected by fitting a threaded cap which maintains a degree of ingress protection of at least IP54 and is suitably protected from impact.
10. Repair of this accelerometer shall be carried out by the manufacturer or in accordance with the applicable code of practice (e.g. IEC 60079-19).
11. If the accelerometer is likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions that prevent it from being adversely affected, thus ensuring that the type of protection is not compromised.
12. Regular maintenance of the accelerometer requires the following: Check to assure the unit is securely mounted to the surface being monitored and the connector is securely tightened to the unit. Assure the connecting cable is in good condition. The accelerometer does not require periodic calibration as the long-term shift in calibration is no greater than 1% in ten years. Periodic calibration is usually performed only for accelerometers in service where regulatory standards are in place, such as nuclear power generation (NRC) or aviation certification (FAA).