



Hazardous Location Installation Information

This chapter contains the following sections:

- [Hazardous Area Installation Warnings, on page 1](#)
- [North American Hazardous Location Approval, on page 3](#)
- [EMC Environmental Conditions for Products Installed in the European Union, on page 4](#)
- [Hazardous Locations Standards, on page 4](#)

Hazardous Area Installation Warnings



Warning

Warning: Exposure to some chemicals could degrade the sealing properties of materials used in the sealed relay device. Statement 381



Warning

Failure to securely tighten the captive screws can result in an electrical arc if the connector is accidentally removed. Statement 397



Warning

When you connect or disconnect the power and/or alarm connector with power applied, an electrical arc can occur. This could cause an explosion in hazardous area installations. Be sure that all power is removed from the switch and any other circuits. Be sure that power cannot be accidentally turned on or verify that the area is nonhazardous before proceeding. Statement 1058



Warning

In switch installations in a hazardous location, the DC power source could be located away from the vicinity of the switch. Before performing any of the following procedures, locate the DC circuit to ensure that the power is removed and cannot be turned on accidentally, or verify that the area is nonhazardous before proceeding. Statement 1059



Warning This equipment is supplied as “open type” equipment. It must be mounted within an enclosure that is suitably designed for those specific environmental conditions that will be present and appropriately designed to prevent personal injury resulting from accessibility to live parts. The interior of the enclosure must be accessible only by the use of a tool. The enclosure must meet IP 54 or NEMA type 4 minimum enclosure rating standards. Statement 1063



Warning When used in a Class I, Division 2, hazardous location, this equipment must be mounted in a suitable enclosure with proper wiring method, for all power, input and output wiring, that complies with the governing electrical codes and in accordance with the authority having jurisdiction over Class I, Division 2 installations. Statement 1066



Warning Use twisted-pair supply wires suitable for 86°F (30°C) above surrounding ambient temperature outside the enclosure. Statement 1067



Warning This equipment is intended for use in a Pollution Degree 2 industrial environment, in overvoltage Category II applications (as defined in IEC publication 60664-1), and at altitudes up to 2000 meters without derating. Statement 1068



Warning Do not connect or disconnect cables to the ports while power is applied to the switch or any device on the network because an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed from the switch and cannot be accidentally be turned on, or verify that the area is nonhazardous before proceeding. Statement 1070



Warning If you connect or disconnect the console cable with power applied to the switch or any device on the network, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. Statement 1080



Warning Explosion Hazard—Do not connect or disconnect wiring while the field-side power is on; an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or that the area is nonhazardous before proceeding. Statement 1081



Warning The area must be known to be nonhazardous before installing, servicing, or replacing the unit. Statement 1082



Warning Explosion Hazard—Substitution of components may impair suitability for Class I, Division 2/Zone 2. Statement 1083



Warning Do not insert and remove SFP modules while power is on; an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. Statement 1087



Caution This equipment is only suitable for use in Class I, Division 2, Groups A, B, C, D, or nonhazardous locations.

North American Hazardous Location Approval

The following information applies when operating this equipment in hazardous locations:

<p>English:</p>	<p>Products marked "Class I, Div 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.</p>
<p>Francais:</p>	<p>Informations sur l'utilisation de cet équipement en environnements dangereux:</p> <p>Les produits marqués "Class I, Div 2, GP A, B, C, D" ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.</p>

EMC Environmental Conditions for Products Installed in the European Union

This section applies to products to be installed in the European Union.

The equipment is intended to operate under the following environmental conditions with respect to EMC:

- A separate defined location under the user's control.
- Earthing and bonding shall meet the requirements of ETS 300 253 or CCITT K27.
- AC-power distribution shall be one of the following types, where applicable: TN-S and TN-C as defined in IEC 364-3.

In addition, if equipment is operated in a domestic environment, interference could occur.

Hazardous Locations Standards

Hazardous location standards for the Cisco IE 4000 switches:

Environmental Ranges	
Operating temperature	-29 to 165°F (-34 to 74°C)
Storage temperature	-40 to 185°F (-40 to 85°C)
Operating altitude	Up to 13,000 ft (3962 m)
Storage altitude	Up to 40,000 ft (12,192 m)
Thermal spacing	3.54 in. (90 mm) exposed side 4.13 in. (105 mm) top and bottom
Power Requirements	
AC input voltages	Range: 85–264 VAC at 47–63 Hz Nominal: 115 VAC at 60 Hz or 230 VAC at 50 Hz
Maximum AC power input current	0.75 A @ 230 VAC and 50 Hz or 1.3 A @ 115 VAC and 60 Hz
DC input voltages	Range: 88–375 VDC Nominal: 125 VDC or 250 VDC
Maximum DC input current	0.75 A at 220 VDC or 1.25 A at 150 VDC
Physical Dimensions	

Weight	1.4 lb (0.63 kg)
Dimensions (W x D x H)	2 x 4.62 x 5.81 in. (50.8 x 117.5 x 147.6 mm) Note: Width includes the cosmetic end-caps. Height does not include the panel mount brackets. Depth is the distance from the rail.
The following standards were used for the hazardous locations approvals and certifications:	Les normes suivantes ont été appliquées pour les approbations et les certifications dans le cadre d'environnements dangereux :
ANSI/ASA 12.12.01-2013	ANSI/ASA 12.12.01-2013
CAN/CSA C22.2 No. 60079-0: 11	CAN/CSA C22.2 n° 60079-0 : 11
CAN/CSA C22.2 No. 60079-15:12	CAN/CSA C22.2 n° 60079-15 :12
CSA C22.2 No. 213-M1987	CSA C22.2 n° 213-M1987
EN 60079-0:2012+A11:2013	EN 60079-0:2012+A11:2013
EN 60079-15:2010	EN 60079-15:2010
IEC 60079-0 6th Edition	IEC 60079-0, 6e édition
IEC 60079-15 4th Edition	IEC 60079-15, 4e édition
UL 60079-0, 5th Ed, 2009-10-21	UL 60079-0, 5e éd., 21-10-2009
UL 60079-15, 3rd Ed, 2009-7-17	UL 60079-15, 3e éd., 17-07-2009

