Hazardous Location Installation Information

This appendix provides hazardous location installation information for the Cisco IE 1000 switches.

Hazardous Area Installation Warnings

Warning: Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals. Statement 43

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: Do not work on the system or connect or disconnect cables during periods of lightning activity. Statement 1001

Warning: Before performing any of the following procedures, ensure that power is removed from the DC circuit. Statement 1003

Warning: Read the installation instructions before you connect the system to its power source. Statement 1004

Warning: This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security. Statement 1017

Warning: This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available. Statement 1024

Warning: This unit might have more than one power supply connection. All connections must be removed to de-energize the unit. Statement 1028

Warning: Only trained and qualified personnel should be allowed to install, replace, or service this equipment. Statement 1030

Warning: Ultimate disposal of this product should be handled according to all national laws and regulations. Statement 1040

Warning: For connections outside the building where the equipment is installed, the following ports must be connected through an approved network termination unit with integral circuit protection.
10/100 Ethernet Statement 1044

Warning: To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of:
158° F (70° C) for POE units, and 140° F (60° C) for Non-POE units. Statement 1047

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: Installation of the equipment must comply with local and national electrical codes. Statement 1074

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: Explosion Hazard—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.

Caution: When installed in a Class I, Div/Zone 2 hazardous location environment, this equipment must be installed in a min. IP54, ATEX certified enclosure.

Caution: When installed in a Class I, Div/Zone 2 hazardous location environment, this equipment must be installed in a pollution degree 2 environment per IEC 60664-1)

Caution: The device is designed to mount on a DIN rail that conforms to Standard EN50022.

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

Caution: Airflow around the switch must be unrestricted. To prevent the switch from overheating, there must be the following minimum clearances:
- Top and bottom: 2.0 in. (50.8 mm)
- Sides: 1.0 in. (25.4 mm)
- Front: 2.0 in. (50.8 mm)
Contact your Cisco Technical Assistance Centre (TAC) if tighter spacings are required.

Caution: The device is intended for vertical installations only.

Caution: Ensure the device is not installed in an environment that exceeds the approved ambient temperature range.

Caution: The device is designed to mount on a DIN rail that conforms to Standard EN50022.

North American Hazardous Location Approval

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

English:	**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.**
Français:	**Informations sur l'utilisation de cet équipement en environnements dangereux:** **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.**

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 1000 switches:

The following standards were used for the hazardous locations approvals and certifications:
ANSI/ASA 12.12.01-2013
CAN/CSA C22.2 No. 60079-0: 11
CAN/CSA C22.2 No. 60079-15:12
CSA C22.2 No. 213-M1987
EN 60079-0:2012+A11:2013
EN 60079-15:2010
IEC 60079-0 6th Edition
IEC 60079-15 4th Edition
UL 60079-0, 5th Ed, 2009-10-21
UL 60079-15, 3rd Ed, 2009-7-17