

UL vs. CE-ATEX

What's the difference?

CE - General: A CE mark on a product can mean many different things = which means that if you see a CE mark on a product, you have no way to know what it means. In order to know what a specific CE mark means, you must have a copy of the CE Declaration of Conformity (DoC) for the product. The CE DoC defines to what CE Directives & Standards the product complies. For products intended for use in a potentially explosive environment (“zone” rated products), the CE DoC should indicate the “ATEX Directive” (2014/34/EU) with the appropriate EN explosion protection standards identified.

CE – ATEX Directive: The CE-ATEX Directive provides the requirements for all products intended for use in a hazardous-explosive environment in the European Union (EU). The CE-ATEX Directive is a “Notified Body” Directive which means that an ATEX-NB (accredited EU certification body) must verify the product complies with the ATEX Directive and the appropriate EN explosion protection standards. A CE mark issued from a Notified Body (NB) has a 4 digit number adjacent to the CE mark that is traceable to the specific NB.

Although the ATEX Notified Bodies conduct a very thorough review and testing of the product to the EN explosion protection standards, the NB does not review or even verify that the product also meets the EN basic safety standard. The CE-ATEX Notified Bodies simply confirm in writing that it is the manufacturer’s responsibility. That’s it! And even then, it’s manufacturer’s self-declaration of compliance – not an accredited 3rd party lab. This is a significant difference from a “UL” Certification.

“UL” Certification is the term commonly used for the product safety certification system in the United States. The system involves a mandatory 3rd party program where only an OSHA accredited Nationally Recognized Test Lab (NRTL) can “certify” that a product complies with a specific “UL” product safety standard. With “UL” Certification, after a product is found to comply it is subjected to regular unannounced factory inspections to insure that the product continues to comply with the applicable UL product safety standard.

In the U.S., products must be “UL” certified to the basic product safety standard that applies to the product for “ordinary” location (not hazardous/explosive). This is a big difference from CE ATEX. In addition, products intended for use in a potentially explosive environment (class/division rated products), must also be certified to the appropriate explosion protection standards.

Standards & Area Classification Systems: While some of the UL explosion protection standards are harmonized with the EN standards, some are not. In addition, the explosive environment classification system in Europe (zone based) is different from that in the U.S. (class/division based).

CE in the U.S.: A common misconception is that the CE mark is just like a UL mark and therefore it should be accepted in the United States. But the CE mark program is very different than the US-UL NRTL program and the CE mark is definitely not equivalent or suitable in the US. This includes a CE-ATEX mark.



The CE-ATEX mark is not accepted in the United States for several reasons:

UL vs. CE-ATEX:	UL	ATEX
3 rd Party Certification Required?	YES - Full	YES - Partial*
Certification Mark can be independently verified?	YES	YES
Factory Inspections Required?	YES	YES
Certification Mark assures Safety Compliance?	YES	NO
Products must be basic safety certified?	YES	NO
Products comply with the NEC?	YES	NO
U.S. Inspectors Accept the Mark?	YES	NO

*: CE-ATEX certification does not include basic safety certification of the product

Conclusion: The “UL” certification mark and the CE mark are very different regulatory compliance programs that have few things in common. There are significant differences that make the CE-ATEX mark a lower level of compliance from a “UL” certification. The fact that CE ATEX excludes Notified Body verification of basic safety compliance is a very big difference. Consequently, it is easy to see that UL ≠ CE.

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