Product Approval

- Acceptable To The Authority Having Jurisdiction
  - Canada - Certified to a CSA Standard (also IECEx standards are acceptable)
  - Europe - Approved By Accredited Testing Agency To CENELEC Standards

  - Now Includes ATEX Directives With \( \text{CE} \) Marking
  - Marked “Ex” \( \text{Ex} \)

- IEC - Approved By Accredited Testing Agency To IECEx Standards
Product Approval - International

• Approval To IEC Standards
  – IEC Does Not Have Testing (At This Time...) with exception of IECEx and new introduction of IECEE
  – Many Countries “Adopt” IEC Standards
    • May Include “National Deviations”
    • Tested To An Adopted Standard & Marked With “Ex”
  – Manufacturers May Declare as “Complying With IEC Standards”
    • This Is not an Approval
    • Some Products Don’t Require Approval
    • May find type-testing or other testing for certain IEC products such as Motor Controls & Switchgear
## How Do Product Approvals Compare?

<table>
<thead>
<tr>
<th>Product Approval Requirements</th>
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</thead>
<tbody>
<tr>
<td><strong>CEC</strong></td>
</tr>
<tr>
<td>Must Be Tested &amp; Approved To CSA Standard By Accredited Testing Agency UL, CSA and others</td>
</tr>
<tr>
<td><strong>NEC</strong></td>
</tr>
<tr>
<td>Zone Products Must Be “Listed” to ANSI Std. Division Products Acceptable In Zones UL, ETL, FM, CSA</td>
</tr>
<tr>
<td><strong>CENELEC</strong></td>
</tr>
<tr>
<td>Must Be Tested To EN Std. By Accredited Testing Agency ATEX 7/1/2003</td>
</tr>
<tr>
<td><strong>IEC</strong></td>
</tr>
<tr>
<td>Through Country ACB Little or no country deviation</td>
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Product Standards

• Criteria for Evaluating or Testing Products By an Accredited Certification Organization
  – USA
    • ANSI Are The National Standards
    • UL, FM, ISA, MSHA, Coast Guard... write Standards
      – May Not Be ANSI Standards
  – Canada
    • Canadian Standards Association - CSA
      – Fire Alarms by Underwriters Laboratories Canada Ltd.
  – Internationally
    • CEN, CENELEC, IEC and various country specific standards including DIN, BSI, NORSOK, etc.