**ECD DRAINS AND BREATHERS**

**Installation & Maintenance Information**

**TABLE I**

<table>
<thead>
<tr>
<th>ECD Drains &amp; Breathers</th>
<th>Cat. No.</th>
<th>Description</th>
<th>Class I</th>
<th>Group</th>
<th>Class II</th>
<th>Group</th>
<th>Class NEMA 4X</th>
<th>ATEX</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECD1 N4B Breather</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ECD1 N4D Drain</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>ECD38 N4B Breather</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>ECD38 N4D Drain</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Recommended practice incorporates a breather and a drain in each enclosure or conduit system where condensation may occur.

ECD Drains are installed in hubs or drilled and tapped openings in the bottoms of enclosures or hubs to prevent pooling of liquid. Drains are to be installed in bottoms of enclosures or hubs to allow liquid to drain out.

ECD Breathers are installed in hubs or drilled and tapped openings in tops of the enclosures or upper sections of conduit systems to provide ventilation to minimize condensation.

**APPLICATION**

**TABLE II**

<table>
<thead>
<tr>
<th>Thread Size</th>
<th>ECD NEMA 4x</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8</td>
<td>ECD38 N4D</td>
</tr>
<tr>
<td></td>
<td>ECD38 N4B</td>
</tr>
<tr>
<td>1/2</td>
<td>ECD1 N4D</td>
</tr>
<tr>
<td></td>
<td>ECD1 N4B</td>
</tr>
</tbody>
</table>

**FLUSH-CLEANING**

Flush cleaning may be required by the user’s periodic maintenance program or when a drain or breather becomes clogged with foreign material.

1. Attach drain or breather to a clean water line with threaded end facing upstream. Some methods are shown below.

2. Flush ECD with water under line pressure (typically 30 to 75 psi). Replace the drain or breather if the foreign material is not removed.

3. After cleaning, attach breather or drain to a pressurized dry air supply line in a similar fashion to that used with the water line in Step 1.

4. Blow the fitting dry, inside and out, with the dry air.

5. Once flush-cleaning is complete, reinstall the ECD fitting following the installation instructions provided.

6. For ECD38 N4B and ECD1 N4B Breathers, be sure to securely tighten non-metallic white breather cap once completed with flush cleaning process.

**INSPECTION & MAINTENANCE OF DRAINS AND BREATHERS**

**WARNING**

To avoid electrical shock, electrical power must be off before and during installation or maintenance.

Performs visual and mechanical inspections on a regular basis. Frequency should be determined by the environmental conditions. However, it is recommended that checks should be made at least once a year.

**WARNING**

Never disassemble breathers or drain assemblies.

**ECD NEMA 4X Inspection and Maintenance:**

1. Remove drain or breather and replace it with either a plug or a clean drain or breather.

2. Clean drain by following “Flush Cleaning” instructions.

3. For ECD NEMA 4X Breathers, unscrew cap before flush-cleaning and securely tighten once complete.

**NOTES:**

Different styles and sizes of ECD fittings will allow different amounts of water or air to pass through. To determine if a breather or drain has been cleaned, compare the volume of water passing through it with the amount that will pass through a clean, unused breather or drain of the same style and size.

**CONDITIONS OF USE**

- These units have not been assigned a temperature classification. The maximum temperature rise observed on the breathers was 13.1°C.
- These units have not been evaluated for ambient temperatures outside of -20°C to +60°C.
- Breather/drains must be installed per manufacturer’s instruction sheet IF1705.

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**Eaton’s Crouse-Hinds Business**

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