

ECD DRAINS AND BREATHERS

Installation & Maintenance Information



IF 1705

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

APPLICATION

TABLE 1

ECD Drains & Breathers Cat. No. Description	Class I Group			Class II Group			Class III	NEMA 4X	ATEX
	B	C	D	E	F	G			
PMECD1 N4B Breather	x	x	x	x	x	x	x	x	x
PMECD1 N4D Drain	x	x	x	x	x	x	x	x	x
PMECD38 N4B Breather	x	x	x	x	x	x	x	x	x
PMECD38 N4D Drain	x	x	x	x	x	x	x	x	x

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 in drilled and tapped openings in the bottoms of enclosures or in lower sections of conduit systems to allow liquid to drain out.

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

ECD NEMA 4X Drains and Breathers are designed, engineered, and rated for UL 50 hose-tight wet locations. These fittings are installed in hubs or drilled and tapped openings. Drains are to be installed in bottoms of enclosures or lower sections of conduit runs to prevent pooling of liquid. Breathers are to be installed in tops of enclosures and in upper sections of conduit runs to provide ventilation to minimize condensation.

ATEX & IEC Ex Certified:

II 2 G Ex d IIB + H₂ GB

STANDARDS:

- IEC 60079-0 edition 6 2011-06 EN 60079-0 2012
- IEC 60079-1 edition 6 2007-04 EN 60079-1: 2007
- The breathers were tested for enclosure volumes up to 160 liters

INSTALLATION

WARNING

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

- Check carton label and products to be certain the hazardous location markings show that the product is suitable for the application.
- Remove plug from tapped opening into which drain or breather is to be installed. (Whenever possible, install drain at lowest point in the system or enclosure to minimize "pooling" of liquids).
- Install the drain or breather into the matching female thread, tightening it with a wrench. The female thread should be tapered and tapped to electrical thread dimensions (As referenced in NEMA FB-1 Type NTC or FED-STD H28/7 Table 7.6).
- With ECD NEMA 4X Breathers, ensure cap is tightly screwed and secured before completing the installation process.

WARNING

At least 5 full threads of drain or breather must be engaged in enclosure to meet NEC requirements for explosionproof (Class I) applications. All local codes should be adhered

TABLE II
THREAD SIZE

Male Thread Size	ECD NEMA 4x	
3/8	PMECD38 N4D	PMECD38 N4B
1/2	PMECD1 N4D	PMECD1 N4B

INSPECTION & MAINTENANCE OF DRAINS AND BREATHERS

WARNING

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

Perform 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:

- Remove drain or breather and replace it with either a plug or a clean drain or breather.
- Clean drain by following "Flush Cleaning" instructions.
- For ECD NEMA 4x Breathers, unscrew cap before flush-cleaning and securely tighten once complete.

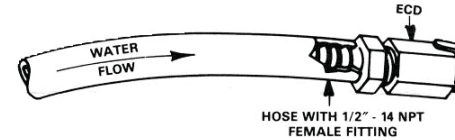
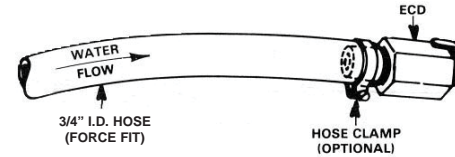


PMECD NEMA 4X

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.

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



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

NOTE: 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.

- 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.
- Blow the fitting dry, inside and out, with the dry air.
- Once flush-cleaning is complete, reinstall the ECD fitting following the installation instructions provided.
- For PMECD38 N4B and PMECD1 N4B Breathers, be sure to securely tighten non-metallic white breather cap once completed with flush cleaning process.

COMPLIANCES

- ATEX: ITS07ATEX15639U
- IECEx: ETL14.0007U

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.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Robroy Industries "Terms and Conditions of Sale", and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.



Robroy Industries
1100 US Hwy 271 S. Gilmer, TX 75644 • U.S.A.
Copyright © 2014

IF 1705
Revision 1
New 06/14