

# EATON Crouse-Hinds series

REDAPT DP-E SERIES • INCREASED SAFETY (EX E) BREATHER / DRAIN

DPE3004S3

PROD SKU: 2503229915

**Product Overview:** The Redapt / Crouse-Hinds **DP-E Series (DPE3004S3)** metallic breather drain provides a reliable method to continuously drain accumulated condensation from hazardous area enclosures while permitting internal air volume breathing. This equalizes atmospheric pressure differentials and prevents moisture-induced short circuits and corrosion.

Manufactured from high-grade **316L Stainless Steel**, this unit is certified to protection concepts **Ex eb** (Increased Safety) and **Ex tb** (Dust Ignition Proof) for hazardous Zones 1, 2, 21, and 22, maintaining full **IP66** / **NEMA 4X** ingress protection.

ATEX / IECEx

cCSAus Type 4X

INMETRO

UKEX / EAC



Crouse-Hinds  
Breather Drain

DPE3004S3 • M20 Stainless  
Steel

## TECHNICAL & MECHANICAL SPECIFICATIONS

|                         |                                                                             |
|-------------------------|-----------------------------------------------------------------------------|
| Part & Catalog Number   | DPE3004S3 (Commercial Cross-Ref: <b>ACDPES/M20/15</b> )                     |
| Thread Specification    | M20 × 1.5 mm pitch metric male thread • 15.0 mm thread length               |
| Body Material & Finish  | AISI 316L Stainless Steel, Unplated (Natural passivated finish)             |
| Internal Filter Media   | High-Density Polyethylene (HDPE) particulate & moisture permeable core      |
| Drain Configuration     | 3 Drain Holes (X3 pattern) • Complete with castellated locknut              |
| Interface O-Ring Seal   | Captive Nitrile (NBR) face seal (Optional: EPDM, Neoprene, Silicone, Viton) |
| Ingress Protection (IP) | IP66 per EN/IEC 60529 • Enclosure Type 4X (CSA / UL 50 / 514B)              |
| Operating Temperature   | Standard assembly: -50°C to +85°C (NBR seal rated -30°C to +80°C)           |
| Net Weight & Packaging  | Approx. 0.08 kg (0.175 lb) • Supplied individually with locknut and seal    |

## DESIGN ADVANTAGES & FUNCTIONAL PRINCIPLES

### Dual Breathing & Drainage Action

Simultaneously permits convection venting to equalize enclosure barometric pressure while gravity drains standing internal water droplets.

### Castellated Locknut Pass-Through

Special slotted locknut teeth ensure bottom condensate flows unimpeded around the internal mounting surface into exterior drain channels.

### Corrosion-Proof 316L Construction

Marine-grade stainless steel body resists harsh industrial salt spray, offshore drilling atmospheres, and corrosive chemical washdowns.

### Certified Ingress Integrity (IP66)

Precision-milled captive O-ring groove guarantees water-tight enclosure sealing against high-pressure water jets and blowing dust.

## MANUFACTURER PART NUMBER DECODER (REDAPT DP-E SERIES)

Systematic code translation for model **DPE - 3 - 0 - 04 - S3**:

**DP-E**

Breather Drain (Ex e)

**3**

316L Stainless Steel

**0**

Unplated Finish

**04**

M20 × 1.5 Thread

**S3**

HDPE • 15mm • 3 Holes w/  
Nut

HAZARDOUS AREA APPROVALS & STANDARDS COMPLIANCE

| Agency / Code          | Marking / Protection Class                                                         | Certificate / Standard Reference                                             |
|------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| ATEX (CENELEC)         | I M2 / II 2 GD<br>Ex eb I / IIC Mb Gb • Ex tb IIIC Db                              | ITS16ATEX101338X / SIRA 99 ATEX 3050U<br>EN 60079-0, EN 60079-7, EN 60079-31 |
| IECEX                  | Ex eb I / IIC Mb Gb<br>Ex tb IIIC Db IP66                                          | IECEX ITS 16.0014X<br>IEC 60079-0, IEC 60079-7, IEC 60079-31                 |
| cCSAus (North America) | Class I, Division 2, Groups A, B, C, D<br>Class I, Zone 1, AEx eb IIC Gb • Type 4X | CSA00CA1033919X / LR 106498<br>CAN/CSA C22.2, ANSI/UL 514B, UL 60079-7       |
| INMETRO / EAC          | Ex eb IIC Gb • Ex tb IIIC Db                                                       | NCC 18.0165 X • RU C-GB.M 62.B.06227                                         |

DIMENSIONAL DATA & THREAD CHARACTERISTICS

| Parameter               | Metric Spec (M20)    | Reference Notes                                                      |
|-------------------------|----------------------|----------------------------------------------------------------------|
| Entry Thread Form       | M20 × 1.5 pitch      | ISO Metric, 6g tolerance fit per BS 3643                             |
| Thread Length (L)       | 15.0 mm (0.59 in)    | Ensures full thread engagement through heavy enclosure walls         |
| Across Flats (Hex A/F)  | 28.6 mm (1.125 in)   | Standard wrench size for body and castellated locknut                |
| Drain Configuration     | 3 Peripheral Holes   | Allows multi-directional drainage regardless of mounting orientation |
| Mounting Clearance Hole | Ø 20.0 mm to 20.5 mm | For clearance holes, locknut must be torqued to enclosure floor      |

INSTALLATION, TORQUING & MAINTENANCE GUIDELINES

|                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Lowest Point Mounting</b></p> <p>Always install the breather drain into the lowest point of the enclosure baseplate. Ensure that internal water paths toward the fitting remain unobstructed.</p>                                                                                                                                                                                     | <p><b>Castellated Nut Positioning</b></p> <p>When securing through clearance holes, place the castellated face directly against the internal wall of the enclosure to allow fluid drainage through slots.</p>                  |
| <p><b>Recommended Tightening Torque</b></p> <p>Tighten fitting to standard entry torque (approx. <b>27.0 N•m</b> for M20 stainless steel) to fully compress the captive O-ring without deforming the seat.</p>                                                                                                                                                                              | <p><b>Routine Inspection &amp; Cleaning</b></p> <p>Periodically inspect the external drain orifices for dirt, grease, or insect obstruction. The HDPE porous core can be backflushed with clean water or low-pressure air.</p> |
| <p><b>Ordering &amp; Cross-Reference Notice</b></p> <p>Part numbers <b>DPE3004S3</b> and <b>ACDPES/M20/15</b> identify the identical specification: Eaton Crouse-Hinds series Redapt M20 316L Stainless Steel 15mm Increased Safety Breather Drain with HDPE element, 3 drain ports, and castellated locknut. Distributed globally by Eaton Corporation and certified channel partners.</p> |                                                                                                                                                                                                                                |