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 West Midlands, WS10 8XB England

Installation Instructions for Breather Drain

These installation instructions give guidance on selection of Redapt products and general instructions for safety and installation of chosen Redapt products. All Redapt products should only be used in applications and environments as detailed in these instructions and other Redapt literature.

Redapt will not take responsibility for any damage, injury or form of loss caused where products are not installed or used as detailed in these instructions. If in doubt, further advice can be obtained from our Technical Department.

Product Information

Series	Approval No.	Basic IP/CSA NEMA	Impact Resistance	Operating Temp
DP-E	Sira99ATEX3050u	IP66 & NEMA 4X	20Nm-Metallic 7Nm GFN & Alum	-50°C to +85°C

Product Certification

Series	Material	CENELEC Certification	CSA / AEx Certification
DP-E	Metallic (ex Alum)	I M2 II 2DG EExe I/II	CL I, Zn 1, Exe II, CL I Div 2, Gp ABCD
	Alum & GF Nylon	II 2DG EExe II	CL I, Zn 1 Exe II, CL II Gp EFG

Product Description and Part Number Designation

Product Certification				Material		Plating		Thread Size			
DP	Breather Drain	E	E Exe	1	Brass	0	Unplated	04	M20	55	½" BSPP
				2	M. Steel	1	Nickel	05	M25	56	¾" BSPP
				3	S. Steel	2	Zinc	17	¾" ET	68	½" BSPT
				4	G F Nylon	3	Cadmium	18	1" ET	69	¾" BSPT
				5	Aluminium	6	Chromatised	29	½" NPT	81	PG 11
				8	Electroless Nickel	30	¾" NPT	82	PG 13.5		
				42	½" NPS	83	PG 16				
				43	¾" NPS	84	PG 21				

Breather Drain Optional Variations			
DP-E-1-0-04-??	Thread Length	Hole Position	Locknut?
S1	10 mm	Standard (x2)	With
S2	10 mm	Standard (x2)	Without
S3	15 mm	Offset (x3)	With
S4	15 mm	Offset (x3)	Without

Example: **DP-E-1-0-04-S1** =

Breather Drain - Certified E Exe II - Material Brass - Plating None
 Size M20 - Thread 10mm 2 Holes with Locknut.

Selection

1. Products should be selected in accordance with all relevant Standards and Codes of Practice.
2. Ensure that the Breather Drain is certified to the same method of protection as the equipment to which it is to be installed. The Breather Drain is EExe approved for Gp I Cat M2, Gp II Cat 2DG for metallic versions (excluding Aluminium) and EExe approved for Gp II Cat 2DG for Aluminium and 30% Glass Filled Nylon versions.
3. Ensure that the correct size Breather Drain is selected for the entry hole of the enclosure. If the entry hole is threaded ensure that the correct threadform is selected.
4. Ensure that the Breather Drain material is suitable to the enclosure material and to the surrounding environmental conditions. Available Materials and Plating as detailed above.
5. Ensure that the surrounding conditions do not exceed the stated Operating Temperatures of -50°C to $+85^{\circ}\text{C}$.
6. Ensure that the Breather Drain is certified to the same Ingress Protection Levels as the equipment into which it is to be installed. Breather Drain is IP66 and NEMA 4X.
7. Ensure that the impact resistance of the Breather Drain is suitable to that of the equipment to which it is to be installed. Breather Drain has Impact Resistance of 20 Nm for metallic versions (excluding Aluminium) and 7 Nm for Aluminium and Glass Filled Nylon version.

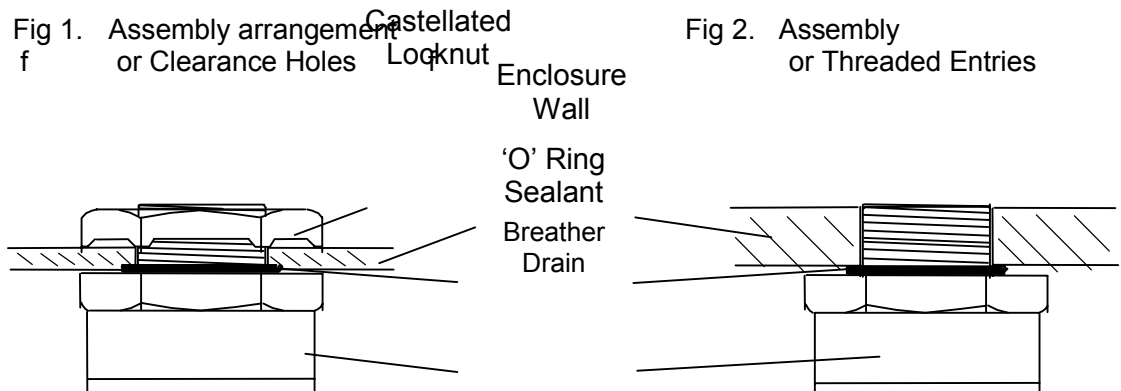
Installation

1. All Red apt products should be installed in accordance with all relevant Installation Standards and Codes of Practice. BS EN 60079-14: 1997. Electrical Installations in hazardous areas (other than mines).
2. Installation of the product should only be carried out by an engineer trained in cable gland installation.
3. Positioning - The Breather Drain is to be fitted onto the bottom face at the lowest point to facilitate optimum drainage.
4. Clearance Holes – Clearance holes should be 0.5 mm to 1.0 mm larger than the major diameter of the thread size being used. Breather Drains located in clearance holes should be secured with the castellated locknut.
Threaded Entries – Breather Drains can be fitted directly into a threaded entry without the castellated locknut although the locknut is recommended for additional security.
5. Maintaining IP Rating – In order to ensure the effectiveness of the 'O' Ring seal and to maintain the IP Rating of the component, the surface of the enclosure should be clean and free from dust or moisture before assembly. The installer should also ensure that the 'O' Ring seal is seated in the groove provided.
6. Assembly and Recommended Installation Torque – In order to maintain the integrity of the enclosure it is important to ensure that the 'O' Ring seal is properly seated in the groove provided. An installation torque as detailed in the table below should then be applied.

Material Type	Thread Size	Recommended Installation Torque
Metallic	M20, 1/2" NPT, 1/2" NPS, 1/2" BSP 3/4" ET, PG 11, PG 13.5, PG 16	32.5 Nm
Metallic	M25, 3/4" NPT, 3/4" NPS 3/4" BSP, 1" ET, PG 21	47.5 Nm
Non – Metallic	M20, M25, 1/2" NPT, 3/4" NPT, 1/2" NPS, 3/4" NPS, 1/2" BSP, 3/4" BSP, 3/4" ET, 1" ET, PG 11, PG 13.5, PG 16, PG 21	10 Nm

Assembly

The Breather Drain should be installed as shown in Fig 1. (Clearance Holes) and Fig 2. (Threaded Entries).



Routine Checking and Maintenance

1. The component should be checked during routine maintenance of the enclosure. Any surface debris that may accumulate on the internal dust seal should be removed with compressed air. Should the exterior drainage holes become blocked, then again this can be cleared with compressed air.

Special Notes with regard to Non-Metallic Breather Drains

- Non-metallic Breather Drains should not be used in metallic threaded entries
- Non-metallic Breather Drains should only be used in Clearance Holes (secured with Locknut) and G.R.P. Threaded Entries. When installed into Clearance Holes care should be taken to avoid over-tightening. A maximum torque as shown above should be applied.
- Should a Breather Drain be required for use in Metallic Threaded Entries then a metallic version should be used.

For Further Assistance or Details on REDAPT's Range Of Products Please Complete Faxback Details.

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NATURE OF ENQUIRY	