

Increased safety (Exe) breather drains (metallic) – DP-E Series

Technical specification

Redapt DP-E series of Exe breather drains provide a method of preventing moisture build-up within a hazardous area approved enclosure whilst ensuring the integrity and Ex approval of the installation is maintained.

They allow for air within an enclosure to breathe with the surrounding atmosphere helping to prevent condensation and any potential damage to sensitive electric/electronic equipment housed within. All whilst maintaining an IP66 rating of the enclosure it is installed in.

Designed for hazardous area applications, Redapt's DP-E series of breather drains are certified to protection concept Exe "Increased Safety" for use in Zone 1 and Zone 2 applications. Also certified Ex tb "dust tight" for use in Zone 21 & 22 applications.



Type DP-E

Certifications and compliances



Code of protection categories

- ATEX:** I M2/II 2 GD, Ex e I/II Mb Gb, Ex tb IIIC Db
- IECE:** Ex e I/II C Mb/Gb, Ex tb IIIC Db
- CSA:** Ex eb IIC Gb IP66 CII Zn 1 AEx eb IIC Gb Enclosure Type 4X (NEMA 4X)

Compliance standards

- ATEX:** EN 60079-0, EN 60079-7, EN 60079-31
- IECE:** IEC 60079-0, IEC 60079-7, IEC 60079-31
- CSA:** C22.2 No. 0-10, CAN/CSA C22.2 NO. 18.3-12, CAN/CSA C22.2 No. 60079-0, CAN/CSA C22.2 No. 60079-7, CAN/CSA C22.2 No. 94-M91, ANSI/UL 514B, ANSI/UL 60079-0, ANSI/UL 60079-7, ANSI/UL 50

Certificate details

- ATEX:** ITS16ATEX101338X
- IECE:** IECEX ITS 16.0014X
- CSA:** CSA00CA1033919X
- EAC:** EAC RU C-GB.M062.B.06227
- INMETRO:** NCC 18.0165 X

Ingress protection (IP):

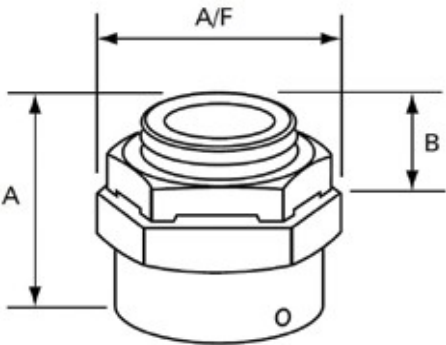
IP66 when fitted in accordance to manufacturer's instructions.

Plating options

- Electroless nickel
- Zinc
- Others on application

Threadforms

- Metric
- NPT



Temperature

Dependent on filter and seal O-ring

- HDPE filter: -50°C to 80°C
- Nitrile: -30°C to +80°C (supplied as standard)
- EPDM: -50°C to +100°C
- Neoprene: -40°C to +80°C
- Viton: -20°C to +180°C
- Silicone: -60°C to +180°C
- Fluorosilicone: -60°C to +130°C

Dimensions

Size	A/F	Overall length (A)	Thread length (B)
M20	28.60	23.00 (min.)	10.00 (min.)
M25	34.90	23.00 (min.)	10.00 (min.)
M32	41.30	23.00 (min.)	10.00 (min.)
½" NPT	28.60	28.00 (min.)	15.00 (min.)
¾" NPT	34.90	28.00 (min.)	15.00 (min.)
1" NPT	41.30	28.00 (min.)	15.00 (min.)

Increased safety (Exe) breather drains (metallic) – Product coding

Product	DIGITS 1 & 2
Increased Safety BREATHER DRAIN	DP

Certification	DIGIT 3
E	Exe I and IIC

Material	DIGIT 4
1	Brass
3	Stainless steel
5	Aluminum

Plating	DIGIT 5
0	Unplated
1	Electroless nickel
2	Zinc

DIGITS 6 & 7
Thread type
04 M20
05 M25
06 M32
29 1/2" NPT
30 3/4" NPT
31 1" NPT

DIGITS 8 & 9		
Thread length	Hole position	Castellated I/nut
S1 10mm	2 Holes	With
S2 10mm	2 Holes	Without
S3 15mm	3 Holes	With
S4 15mm	3 Holes	Without

Alternative threadforms, material & plating on application.

Example

Digits 1&2		Digit 3		Digit 4		Digit 5		Digits 6&7		Digits 8&9	
DP	-	E	-	3	-	0	-	04	-	S1	
Breather drain	Exe I and IIC			Stainless steel		Unplated		M20		10mm	

- Notes:
- NPT threaded breather drains are only available in S3 and S4 options.
 - Default option is S3 / D1

Thread dimension chart

ISO metric

BS 3643 1.5mm pitch

Size	Major dia.	TPI
M12	11.97	16.93
M16	15.97	16.93
M20	19.97	16.93
M25	24.97	16.93
M32	31.97	16.93
M40	39.97	16.93
M50	49.97	16.93
M63	62.97	16.93
M75	74.97	16.93
2.0mm pitch		
M80	79.97	12.70
M85	84.97	12.70
M90	89.97	12.70
M100	99.97	12.70
M110	109.97	12.70
M120	119.97	12.70

Alternate ISO pipe thread designations

UK	BSP Parallel or Taper BS2279 (BS21)
Europe	G (Parallel) GK (Taper) R (Parallel) RK (Taper)
Japan	PF (Parallel) JISB 303
CIS	K mpy (Taper)

NPT

ANSI/ASME B1.20.1

Size	Pipe dia.	TPI
½"	21.34	14.00
¾"	26.67	14.00
1"	33.40	11.50
1¼"	42.16	11.50
1½"	48.26	11.50
2"	60.33	11.50
2½"	73.03	8.00
3"	88.90	8.00
3½"	101.60	8.00
4"	114.30	8.00

PG

DIN 40430

Size	Major dia.	TPI
PG7	12.50	20.00
PG9	15.20	18.00
PG11	18.60	18.00
PG13.5	20.40	18.00
PG16	22.50	18.00
PG21	28.30	16.00
PG29	37.00	16.00
PG36	47.00	16.00
PG42	54.00	16.00
PG48	59.30	16.00

BSP ISO pipe thread

ISO R/7; UNI 6125

Size	Pipe Dia.	TPI
⅝"	16.66	19.00
½"	20.96	14.00
¾"	26.44	14.00
1"	33.25	11.00
1¼"	41.91	11.00
1½"	47.80	11.00
2"	59.61	11.00
2½"	75.18	11.00
3"	87.88	11.00

ET imperial conduit

BS31

Size	Major dia.	TPI
⅝"	15.88	18.00
¾"	19.05	16.00
1"	25.40	16.00
1¼"	31.75	16.00
1½"	38.10	14.00
2"	50.80	14.00
2½"	63.50	14.00
3"	76.20	14.00

Thread dimension substitution chart

Metric	NPT (or NPS)	PG	BSP ISO Pipe	ET
M16	—	7, 9	—	⅝"
M20	½"	11, 13.5	½"	¾"
M25	¾"	16	¾"	1"
M32	1"	21	1"	1¼"
M40	1¼"	29	1¼"	1½"
M50	1½"	36	1½"	2"
M63	2"	42, 48	2"	2½"
M75	2½"	—	2½"	3"
M90 x 2.0	3"	—	3"	—
M100 x 2.0	3½"	—	—	—
M110 x 2.0	—	—	—	—
M120 x 2.0	—	—	—	—