

# IP65 2 STAGE ELIMINATOR

Information & Spec Sheet



## DESIGN

By definition the Eliminator should protect against water and dust which is achieved by the R17 filter pads and offer protection against low pressure jets of water from all directions. Limited ingress is permitted.

Protection against ingress of solid foreign objects.

IPnX: IP6X

Category 2

Test Duration:8 Hours

Protection against ingress of water with harmful effects indicated.

IPXn:IPX5 Flow Rate:12.5 Litres/Minute

Test Duration:3 Minutes

Results IP Value: IP65

Tested To: BS EN60529:1992+A2+2013

CERT: 194-CET-A. 10/09/2020

## FEATURES

- Modular System so most Apertures can be Filled
- Rear or Side Access Available for Filters
- Various Casing Material Available
- Independently Tested
- Economic Outdoor Class PVC
- Drop test to -30DegC Passes.
- 3 Pressure Drop Charts to Match Customers Requirement, Compared to Other Market Standards.



All Engineered Air Treatment Damper designs have been tried and tested for over 35 years.

All materials used are class 'A' Fully traceable as part of ISO 9001



## STANDARD LAYOUT

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MATERIALS	Pre-galvanised M.S Construction
CASING	2mm Pre-Galvanised Mild Steel.
PVC LOUVRE	Specially designed extruded PVC Material in Black.
FLANGES	50mm
HARDWARE	BZP
MESH	1/2"sq Mesh used as standard. Insect mesh is also Available.
FINISH	Self Colour - All Weld Repaired and Coated in C3 Class Top Coat
FILTER	G4 RATED FILTER - Pleated Type is Standard

## OPTIONS FOR MATERIALS

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MATERIALS	304 ST/ST or 316 ST/ST (Different Colour PVC extrusion available on larger numbers)
FILTER	G3 R17 Type G4 Pleated Blue G4 Synthetic Panel
FLANGES	To Suit
LIFTING EYES	Yes
PRESSURE SWITCH	See Belimo Spec



## ADDITIONAL DAMPER INFORMATION

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Engineered Air Treatment Ltd. Pride themselves on solving Damper issues and due to the many options available we would recommend contacting our sales team who would also assist where possible.

**Storage** - Louvres should not be wrapped when delivered. If stored outside the wrapping acts as a green house and temperatures can reach beyond 60 deg and will melt the PVC material.



We have experience of supplying dampers from -30°C to +60°C



Approx 50Kg's per m<sup>2</sup>. We can supply lifting eyes if required.



Please see graph over-leaf



Minimum 150mm, maximum 2000mm Module size, For bigger sizes speak to sales staff.

# PRESSURE DROP

Temperature:-

Standard Range -30°C to 60°C (but material becomes brittle)

The PVC is used at the top of water coolers throughout the UK. We place mesh guard in front of the Matrix to reduce the chance of impacts.

## IP LOUVRE WITH G4 PLEATED FILTER MEDIA

### Coefficient of Entry (C<sub>e</sub>)

Date of Test 06 September 2021

Atmospheric Temperature (°C) 19.1

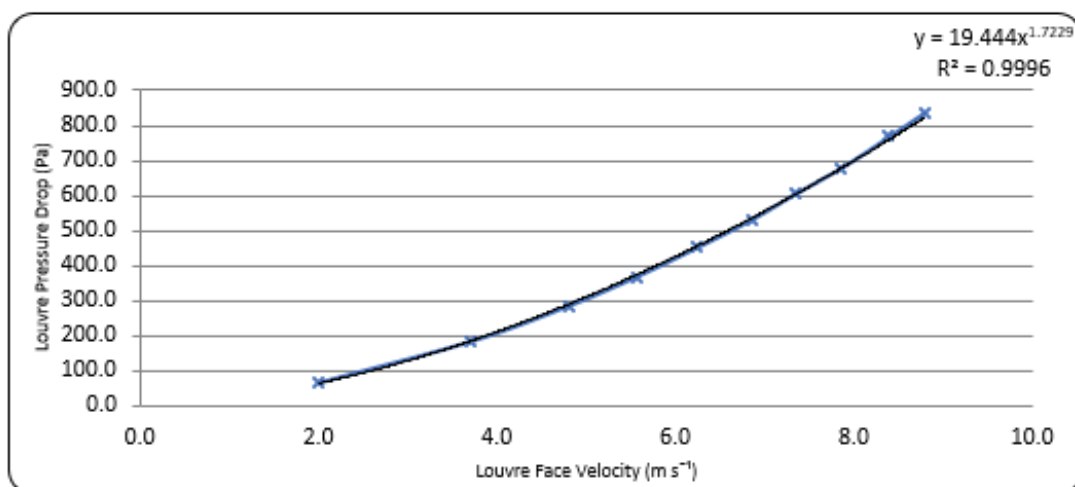
Atmospheric Pressure (mbar) 1018.0

Louvre Pressure Drop (Pa)	Louvre Face Velocity (m s <sup>-1</sup> )	Test Airflow Volume (m <sup>3</sup> s <sup>-1</sup> )	Theoretical Airflow Volume (m <sup>3</sup> s <sup>-1</sup> )	Coefficient (C <sub>e</sub> )
66.0	2.011	0.575	N/A	N/A
183.0	3.695	1.056	N/A	N/A
285.0	4.795	1.371	N/A	N/A
369.0	5.564	1.590	N/A	N/A
452.0	6.239	1.783	N/A	N/A
533.0	6.860	1.961	N/A	N/A
607.0	7.351	2.101	N/A	N/A
680.0	7.861	2.247	N/A	N/A
768.0	8.387	2.397	N/A	N/A
838.0	8.794	2.513	N/A	N/A

Mean Coefficient of Entry (C<sub>e</sub>)

Classification

Development Test Only



# PRESSURE DROP

## IP LOUVRE WITH G4 SYNTHETIC FILTER MEDIA

### Coefficient of Entry ( $C_e$ )

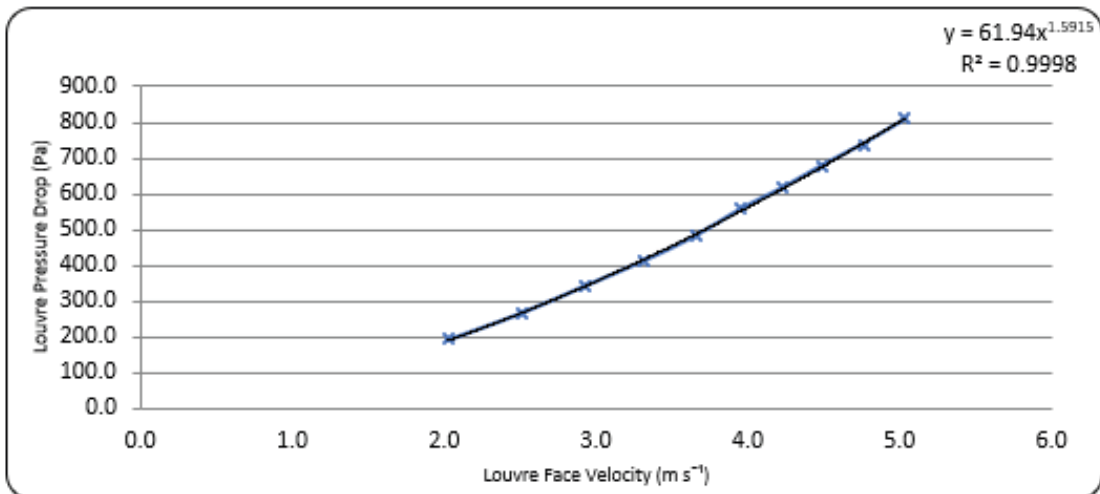
Date of Test 06 September 2021  
Atmospheric Temperature (°C) 19.5  
Atmospheric Pressure (mbar) 1018.2

Louvre Pressure Drop (Pa)	Louvre Face Velocity ( $m\ s^{-1}$ )	Test Airflow Volume ( $m^3\ s^{-1}$ )	Theoretical Airflow Volume ( $m^3\ s^{-1}$ )	Coefficient ( $C_e$ )
191.0	2.021	0.578	N/A	N/A
266.0	2.505	0.716	N/A	N/A
343.0	2.930	0.837	N/A	N/A
414.0	3.318	0.948	N/A	N/A
482.0	3.650	1.043	N/A	N/A
558.0	3.955	1.130	N/A	N/A
617.0	4.228	1.209	N/A	N/A
680.0	4.490	1.283	N/A	N/A
740.0	4.757	1.360	N/A	N/A
810.0	5.038	1.440	N/A	N/A

### Mean Coefficient of Entry ( $C_e$ )

Classification

Development Test Only



# PRESSURE DROP

## IP LOUVRE WITH R17 FILTER MEDIA

### Coefficient of Entry ( $C_e$ )

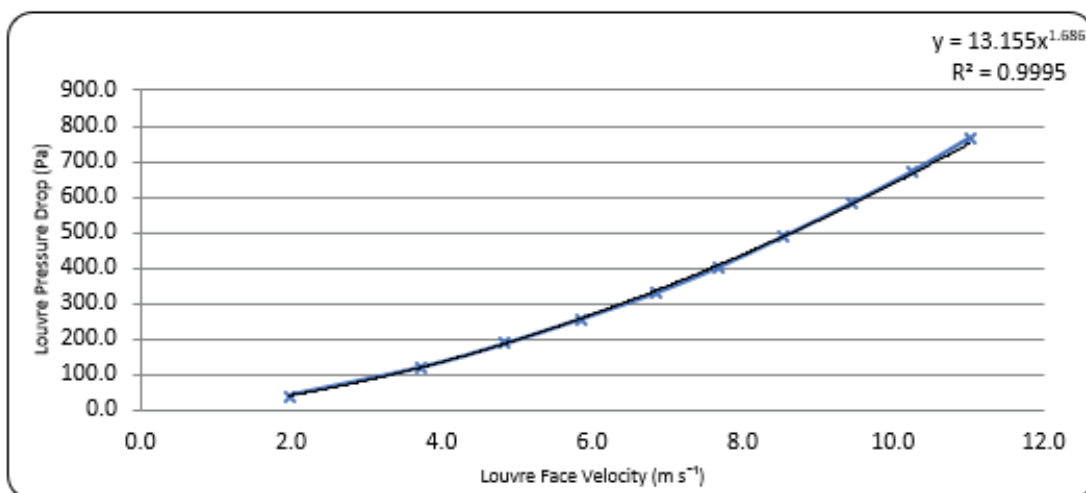
Date of Test 06 September 2021  
Atmospheric Temperature (°C) 19.8  
Atmospheric Pressure (mbar) 1018.3

Louvre Pressure Drop (Pa)	Louvre Face Velocity ( $m\ s^{-1}$ )	Test Airflow Volume ( $m^3\ s^{-1}$ )	Theoretical Airflow Volume ( $m^3\ s^{-1}$ )	Coefficient ( $C_e$ )
42.0	1.974	0.564	N/A	N/A
120.0	3.715	1.062	N/A	N/A
186.0	4.824	1.379	N/A	N/A
257.0	5.858	1.674	N/A	N/A
332.0	6.867	1.963	N/A	N/A
402.0	7.669	2.192	N/A	N/A
488.0	8.534	2.439	N/A	N/A
583.0	9.443	2.699	N/A	N/A
670.0	10.235	2.925	N/A	N/A
766.0	11.003	3.145	N/A	N/A

### Mean Coefficient of Entry ( $C_e$ )

Classification

Development Test Only



# PROTECTION

Tested by Cambridge Refrigeration Technology To BS EN 60529:1992

CERTIFICATE OF TESTING TO BS EN 60529:1992+A2:2013



## Degrees of protection provided by enclosures (IP Code)

Cambridge Refrigeration Technology

certifies that the SD<sub>2</sub> PVC Profile of

Spraydown Solutions in conjunction with Engineered Air Treatment

complies to BS EN 60529:1992+A2:2013  
IP65

Ingress protection of solid objects foreign objects and ingress of water with harmful effects

This is to certify that the specimen detailed has been subjected to and satisfy the tests required by written instruction on the order unless otherwise stated on the certificate.

Our measuring techniques meet the tolerances required by our approval authorities and further quality standards are met accordingly.

No guarantee or responsibility is accepted that the tests performed are sufficient for the final use of the equipment or that the equipment is fit for any particular purpose. This certificate (two pages) shall be reproduced in part only with written approval from CRT.

Certificate Number: 194-CET-A  
Test Number: 67\_2020.

This certificate is valid from: 16/10/2020

Test Engineer

Technical Director  
Authorisation

Cambridge Refrigeration Technology Limited  
Registered Office 140 Newmarket Road Cambridge, England  
Registration No.5857336

**Differential pressure switch**

For monitoring overpressure, vacuum and differential pressure of air or other non-combustible, non-aggressive gases for both HVAC and energy management applications. Automatic reset and field adjustable setpoints and switching hysteresis.


**Type Overview**

Type	Measuring range diff. pressure	Repeating accuracy	Switching differential [pressure]	Burst pressure
01APS-10R	20...300 Pa	±5%, min. ±5 Pa	10 Pa	10 kPa
01APS-10U	50...500 Pa	±2.5%, min. ±5 Pa	20 Pa	10 kPa
01APS-101	200...1000 Pa	±1%, min. ±5 Pa	100 Pa	10 kPa
01APS-104	500...2500 Pa	±1%, min. ±5 Pa	150 Pa	10 kPa

**Technical Data**

<b>Electrical data</b>	Electrical connection	Terminals for wire 0.5...1.5 mm <sup>2</sup>
	Cable entry	Cable gland with strain relief Ø5...10 mm
<b>Functional data</b>	Output signal switch note	Contact current max. 1.0 A (0.4) / AC 250 V
	Application	Air
<b>Measuring data</b>	Measuring values	Differential pressure
	Measuring fluid	Air, non-combustible and non-aggressive gases
<b>Materials</b>	Housing	Bottom Part: PA 6.6 Top Cover: PS
	<b>Safety data</b>	Ambient humidity
Ambient temperature		-20...85°C [-5...185°F]
Fluid temperature		-20...85°C [-5...185°F]
Storage temperature		-40...85°C [-40...185°F]
EU Conformity		CE Marking
Certification IEC/EN		IEC/EN 60730-1
Degree of protection IEC/EN		IP54
Degree of protection NEMA/UL	NEMA 13	
Quality Standard	ISO 9001	



Engineered Air Treatment are proud of our quality record which allows us to have complete confidence in the products we offer. We adhere to our ISO9001 accreditation and install these values into our valuable employees. This confidence allows us to offer a 2 year warranty with all our products.

We also have complete traceability and files over 20 years old to look back on. We are a can do company.

## CE Marking

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The CE marking shall be the only marking which attests the conformity of the product with the applicable requirements of the relevant Community harmonisation legislation providing for its affixing”

There is also currently no relevant Community Harmonisation Legislation for a standard damper to adhere to and so CE marking to an official European standard is not possible.

CE Marking is required if dampers are Classed as fire rated safety products or according the building regulation 2016 a supporting the structure of the building, that is unless it comes into the Bespoke construction Section of the legislation and then due care and diligence needs to be illustrated.

This is our own interpretation of the current legislation and would react accordingly if required by law.

Engineered Air Treatment Ltd are a ISO9001: 2015 certified company, and can offer full material certification and traceability. We can also issue Certificate of Conformity, stating that we have supplied as ordered. We also supply EC Declaration of Incorporation with our products.