# Q-AIRE-V125, EV125F & EV125FH

125mm diameter Filtered Inlet/Extract Air Valve

# Installation Guide

CE The EMC Directive 2014/30/EU
The Low Voltage Directive 2014/35/EU

## 1.0 Introduction

**This 125mm dia. inlet/extract valve can be used either on its own or fitted with a filter or humidistat control circuit board or both.**

The filtered valves Q-AIRE-EV125F and Q-AIRE-EV125FH are adjustable and lockable and require no adjustment after a filter change.
The valves are supplied with an airflow screen which can be inserted into the main body of the valve to deflect the airflow away from walls, or away from other obstructions such as smoke alarms.

The Q-AIRE-EV125FH Extract Valve comes with an inbuilt humidity sensor which simply uses the Ecosmart SELV cable to connect back to the Nuaire Ecosmart compatible fan unit. This is available where the specification calls for room mounted humidity sensors.
The sensor is behind the filter to extend the sensor to prevent it from getting dirty.

Fig 1. Q-AIRE-V125 Supply / Extract Valve without filter.

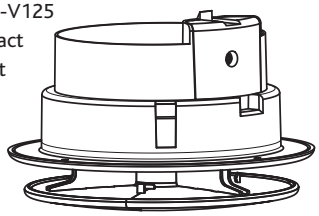


Fig 2. Q-AIRE-EV125F Extract Valve complete with filter.

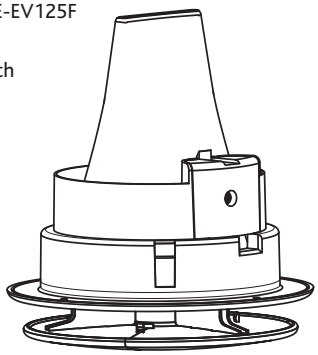
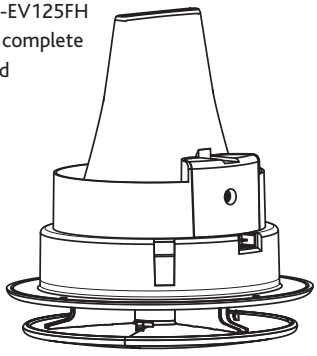


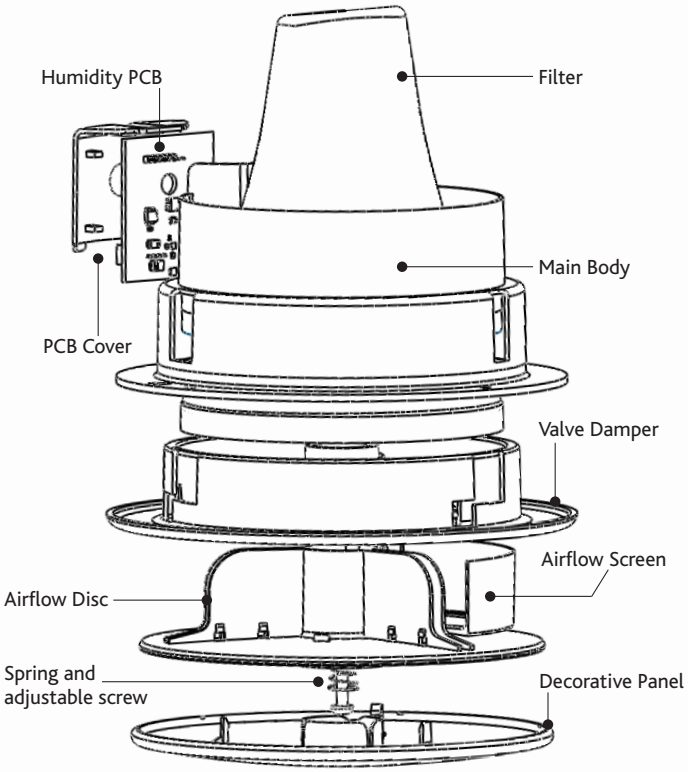
Fig 3. Q-AIRE-EV125FH Extract Valve complete with filter and humidistat.



## 2.0 Main features

- Low profile
- Adjustable for commissioning purposes
- Decorative panel to cover commissioning screw
- Spring loaded to prevent vibration
- Valve removable without disturbing commissioning position
- Supplied with airflow screen to enable air to be directed away from obstacles
- Valve damper removable to allow filter access
- Optional humidity PCB for connection to ventilation unit
- Humidity set point accessible on damper removal

Fig 4. Components.

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## 3.0 Installation

**Installation must be carried out by competent personnel in accordance with the appropriate authority and conforming to all statutory governing regulations.**

### Installation as a supply valve:

- Cut a 145mm Dia. hole in the ceiling where the valve is to be situated
- Line up on main body and fit damper to main body (see fig 5)
- Position main body/damper into the hole and mark the fixing position (see fig 5)
- Remove damper, fit ducting to main body and screw to ceiling (see fig 6)
- **See important note and fig 7 re fixing within 1 metre of a wall**
- If required fit Airflow screen to flow disk (fig 7)
- Fit damper assembly to main body by aligning the triangle symbols, then press together and twist damper assembly clock wise, (you will hear a click when damper is in a 'locked' position. (see fig 8)
- Once all valves are in position they can be commissioned using the adjustment screw (see fig 9).
- On completion clip decorative panel in place (see fig10).

Fig 5. Fit damper to main body and position in the hole.

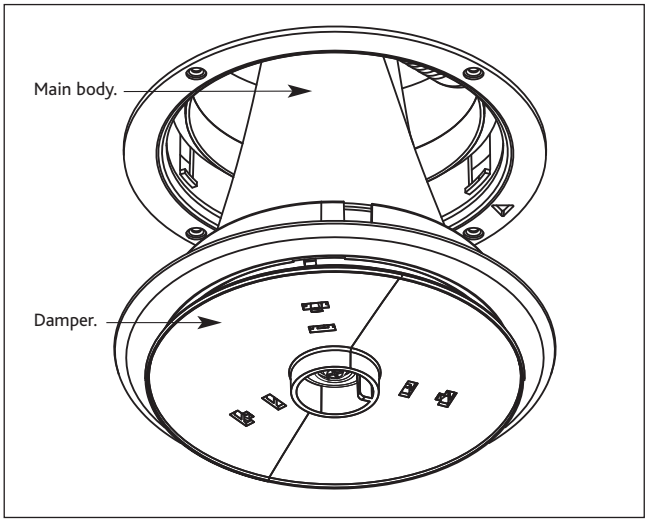
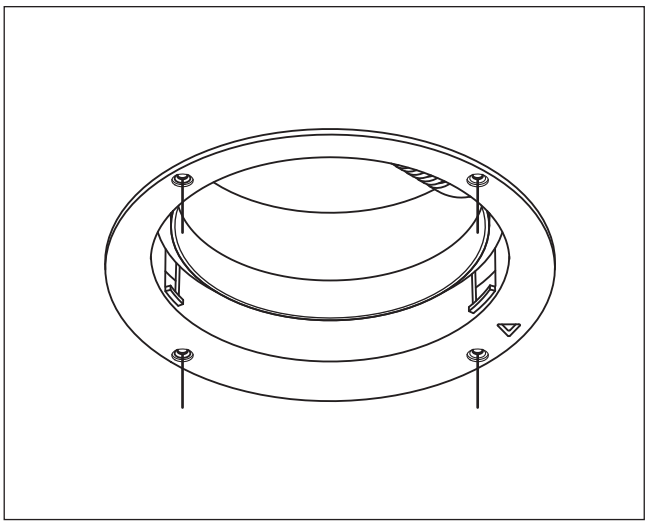



Fig 6. Remove damper, fit ducting to main body and screw to ceiling.



**IMPORTANT**

**If a valve is situated within 1 metre of an obstruction (eg a wall or smoke alarm) then the airflow screen should be fitted to guide the airflow away from the obstruction (see fig 7).**
**This is achieved by fully unscrewing the damper assembly, sliding the airflow screen into place ensuring a positive fit (clicks into place).**
**Once in its locked position re-tighten the fixing screw.**

Fig 7. If required fit Airflow screen to flow disk.

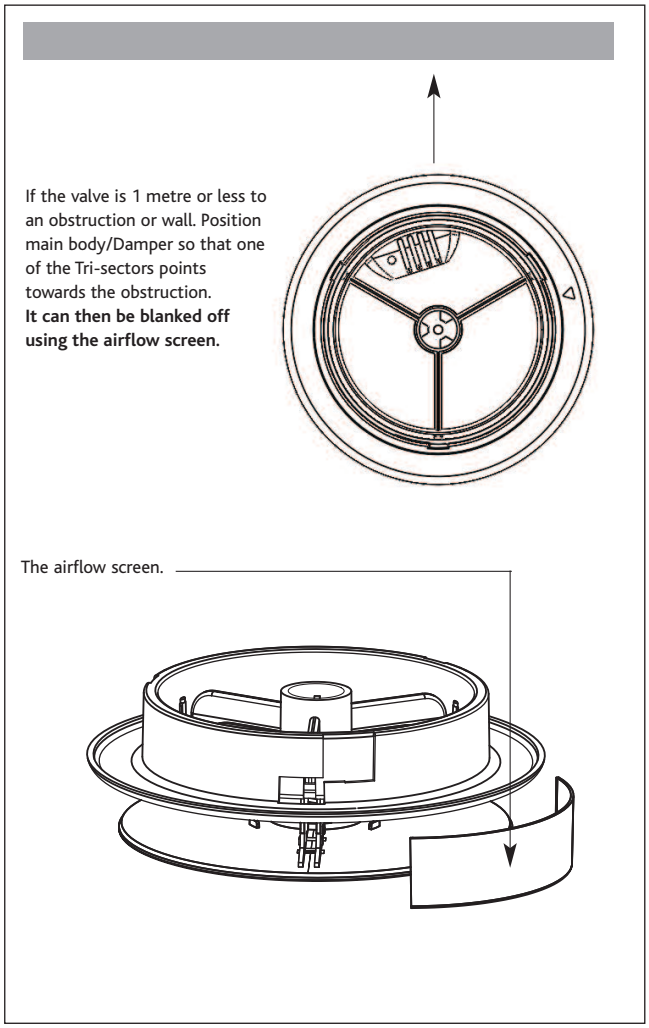
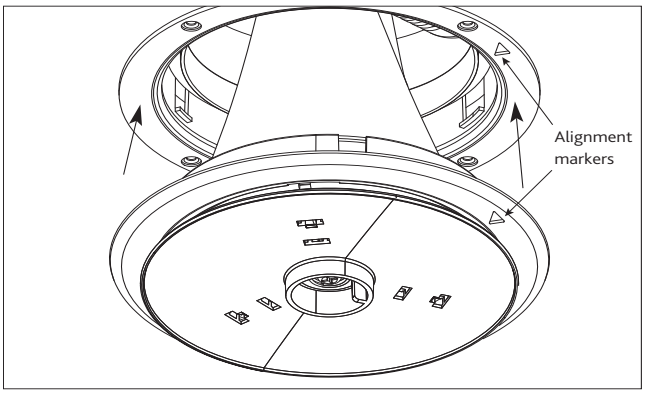



Fig 8. Fit damper assembly to main body by aligning the triangle symbols, then press together and twist damper assembly clockwise, (you will hear a click when damper assembly is in a 'locked' position.



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## 3.0 Installation cont.

Fig 9. Once all valves are in position they can be commissioned using the adjustment screw. The gap between the airflow disk and the main body determines the airflow that can pass through the valve. This gap can be adjusted using the screw on the underside of the flow disk **(clockwise to reduce the gap and flow), (anti-clockwise to increase the gap and flow)**.

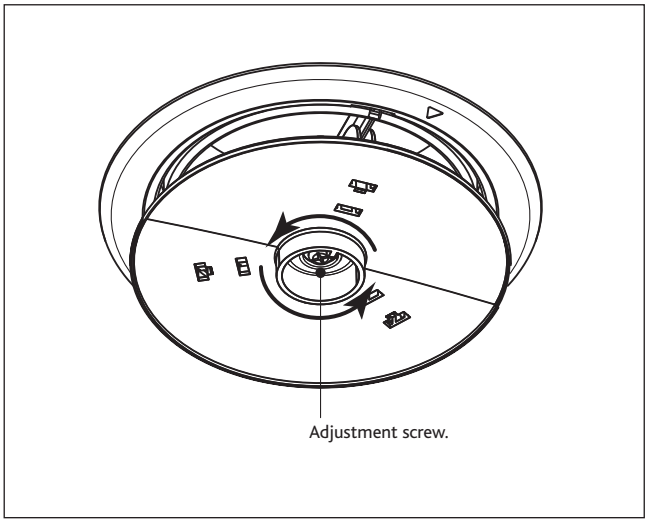
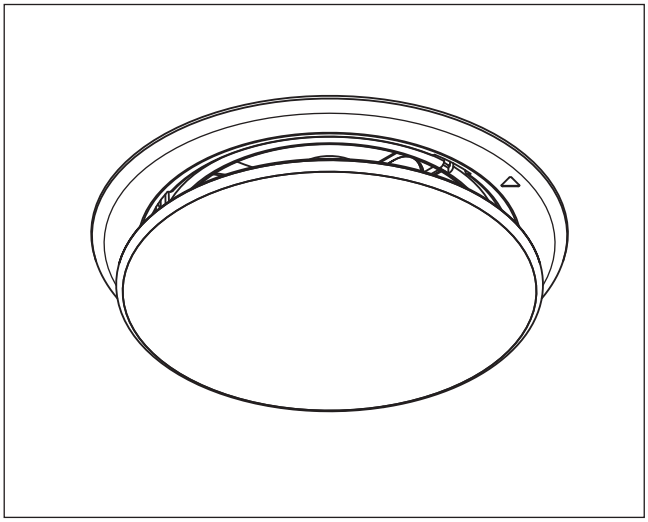



Fig 10. Once the airflow is set, fit the decorative facia panel onto the airflow disk.



## 4.0 Connecting the Q-AIRE-EV125FH to a Nuaire MVHR or MEVDC fan Unit

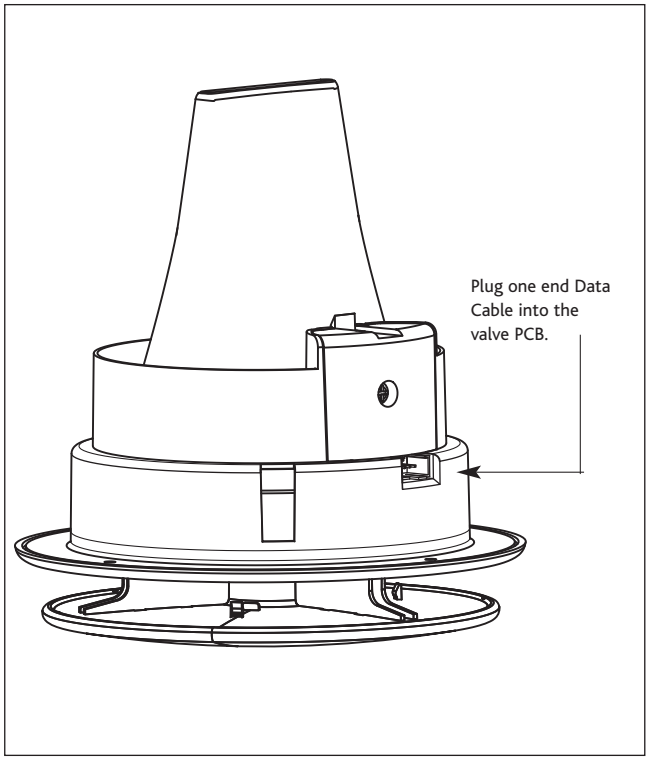
The Q-AIRE-EV125FH Extract Valve comes with an inbuilt humidity sensor which simply uses the Ecosmart SELV cable to connect back to a Nuaire Ecosmart fan unit. This is available where the specification calls for room mounted humidity sensors (See section 5.0).

Note: Unsuitable for use with MEVAC range and MEVDC2 product.

**IMPORTANT**

**The plastic male plug has moulded 'tabs' or protrusions on one side to match and lock it to the board mounted socket thereby ensuring that correct electrical connection is made, so its imperative that the cables are offered to the right side of the plug in precisely the right sequence. Do not force the plug in to the socket.**

Fig 11. Using the Data Cable supplied, plug one end into the valve PCB.

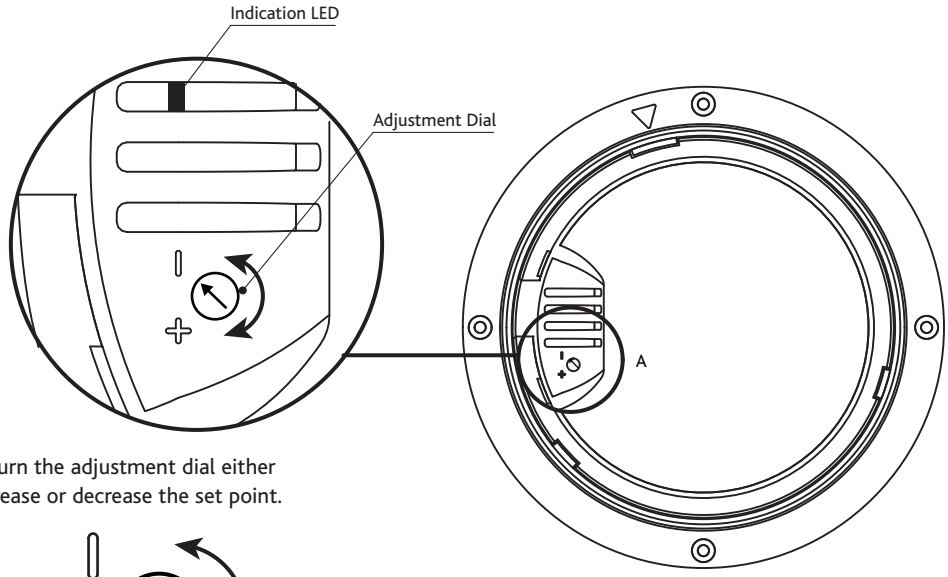



- A 10m data cable is supplied with the valve, with other lengths available. Please see Guidance Notes 5, enclosed with data cable for more details.
- Route the cable back to the fan unit, ensuring that it is separated from mains voltage carrying cables. **Ensure there is at least a 50mm separation between data and mains carrying cables**
- If data and mains cables have to be crossed be sure that they cross at $90^{o}$ to each other
- Plug the opposite end of the cable into your Nuaire fan unit (Unit must be isolated) following the fan units Installation and Maintenance Guide.
- Further information can be found in the Guidance Notes 5 enclosed with the data cable.

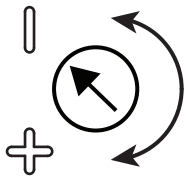
## 5.0 Adjusting the Q-AIRE-EV125FH Humidity Sensor

**Adjusting the sensor set points** - Adjustable RH setting 65 - 85% Assuming the Valve(s) are installed, adjustment of the RH set points are achieved by removing the damper assembly (see fig 9). To expose the humidistat location (fig 12).

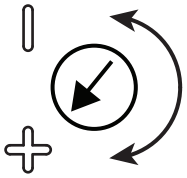
Fig 12. Humidistat location.




Using a small screwdriver, gently turn the adjustment dial either clockwise or anti-clockwise to increase or decrease the set point.



Minimum RH Setting = 65% RH.



Maximum RH Setting = 85% RH

When adjustments are made to the sensor, the Indication LED light on the sensor will flash on and off to show the set point. First, flashes will indicate the set point in TENS, then after a short pause the LED flashes will indicate UNITS.

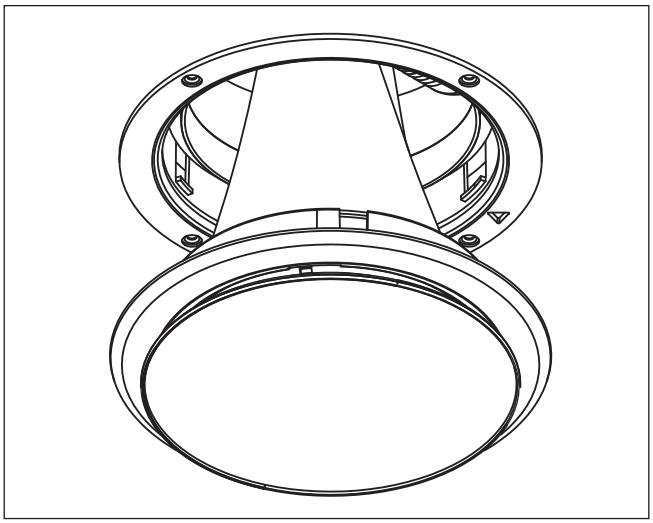
**For example seven flashes and three flashes show a RH set point of 73% (shown in the lookup table on the right).**

| No of times LED flashes | %RH (Tens) | No of time LED flashes (After a small pause) | %RH (Units) |
|---|---|---|---|
| 6 | 60 % | 0 | 0 % |
| **7** | **70 %** | 1 | 1 % |
| 8 | 80 % | 2 | 2 % |
| | | **3** | **3 %** |
| | | 4 | 4 % |
| | | 5 | 5 % |
| | | 6 | 6 % |
| | | 7 | 7 % |
| | | 8 | 8 % |
| | | 9 | 9 % |

## 6.0 Maintenance

The filter can be changed quickly by simply removing the damper assembly, and then the filter. Having re-placed the filter, the damper assembly is the simply re-postioned without any adjustment of the commissioned set point taking place.

Fig 13. Remove the damper assembly to change the filter.



## 7.0 Replacement of Parts

Should any part need replacing, Nuaire keep extensive stocks for quick delivery. When ordering spare parts, please quote the product code.

**Filter Part Number: Q-AIRE-FILTERKIT**

## 8.0 Warranty

The 5 year warranty starts from the day of delivery and includes parts and labour for the first year and parts only for the remaining 4 years.

This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Nuaire International Sales office for further details.

## 9.0 After Sales Enquiries

For technical assistance or further product information, including spare parts and replacement components, please contact the After Sales Department.

**Telephone 02920 858 400**

## 10.0 Dimensions (mm)

Fig 14. Side view.

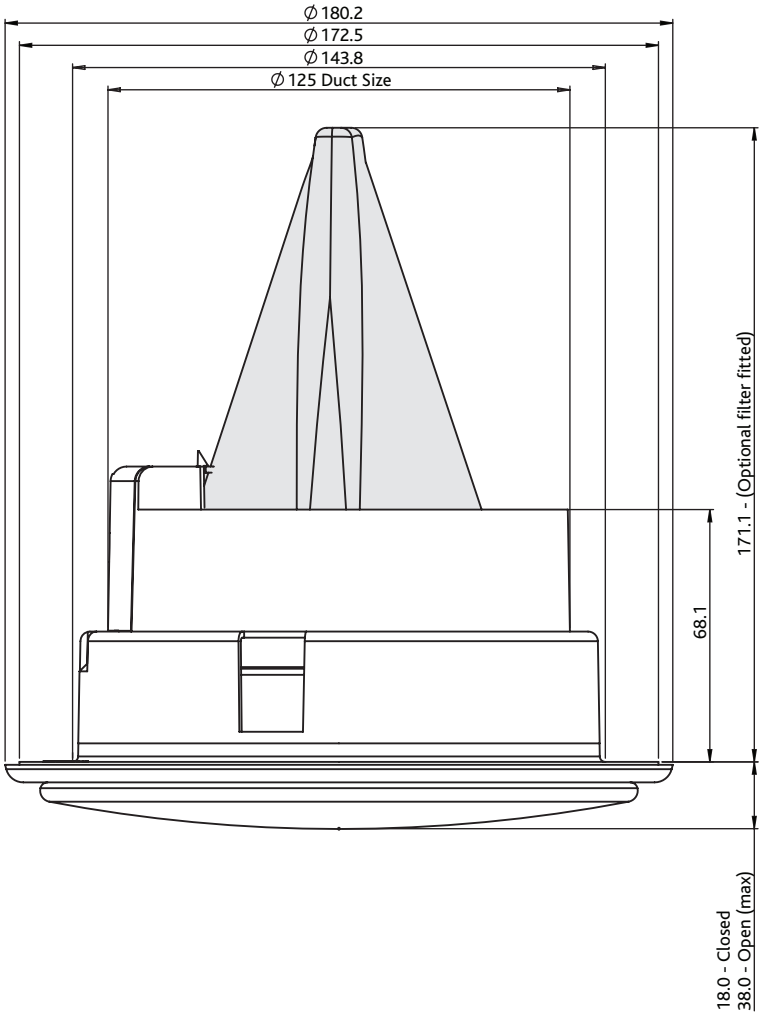



Fig 15. Top view.