

# AQ/D

## Duct Air Quality Sensor

### Important: Retain these instructions

These instructions shall be used by trained service personnel only. If the equipment is used in a manner not specified by these instructions, the protection provided by the equipment may be impaired.

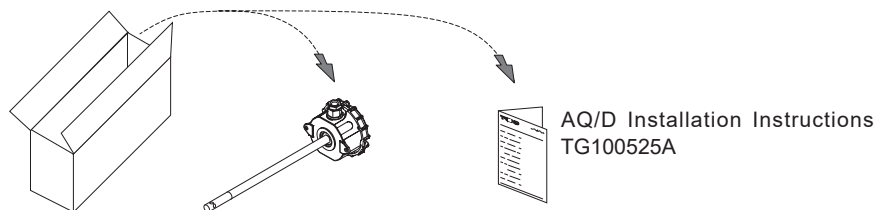
<https://partners.trendcontrols.com>



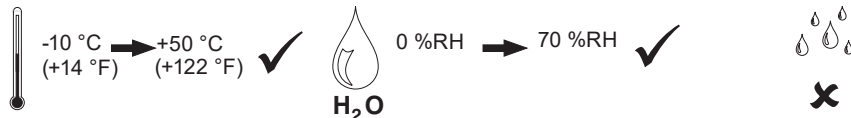
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## 1 BOX CONTENTS



## 2 STORING



## 3 INSTALLATION

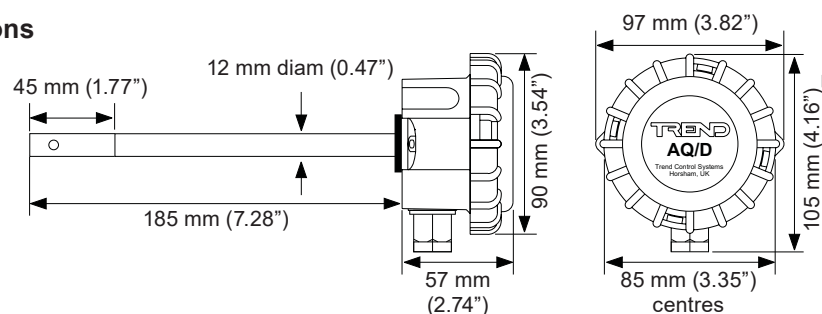
### 3.1 Installation - Mounting



It is recommended that the installation should comply with the HSE Memorandum of Guidance on Electricity at Work Regulations 1989. For USA install equipment in accordance with National Electric Code

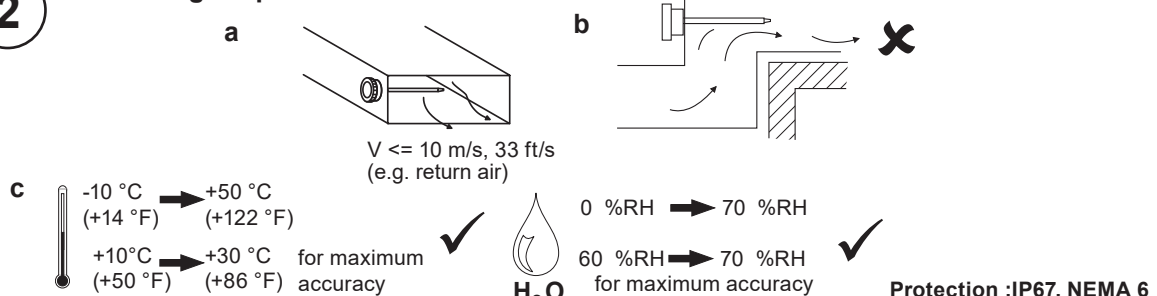
1

### Dimensions



2

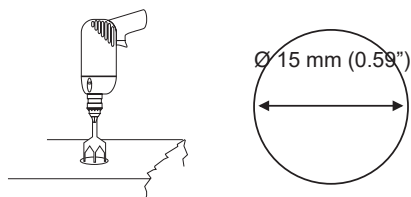
### Mounting Requirements



### 3.1 Installation - Mounting (continued)

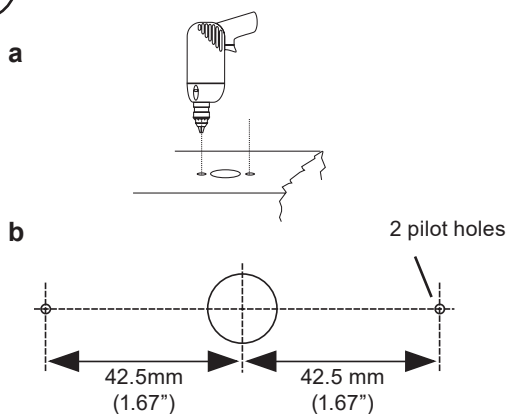
3

#### Drill hole in Duct



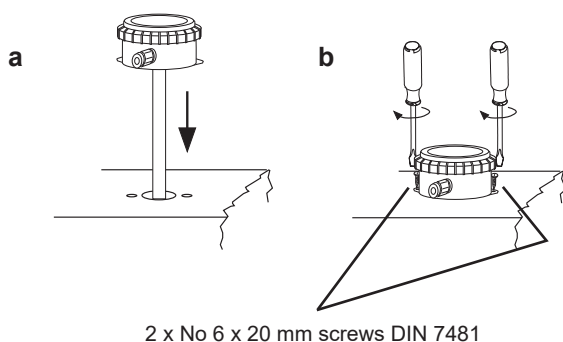
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#### Prepare Duct



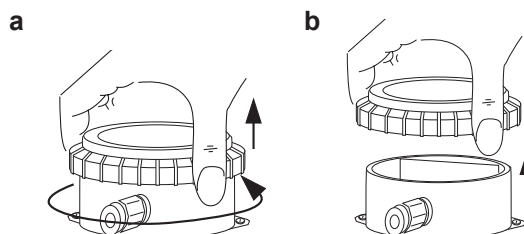
5

#### Mount Sensor



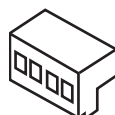
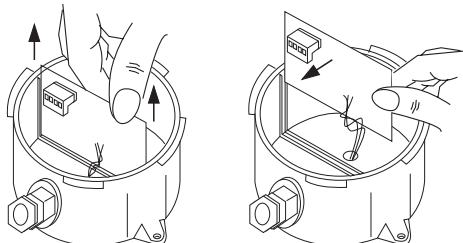
6

#### Remove Lid



7

#### Remove Connector

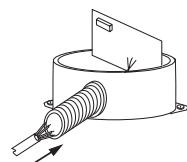


**Caution:** This unit contains static sensitive devices. Suitable anti-static precautions should be taken throughout the operation to prevent damage to the units.  
BS EN100015/1 Basic  
Specification: protection of electrostatic sensitive devices.

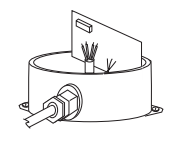
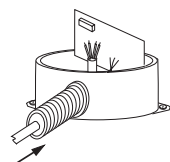
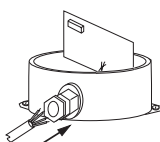
8

#### Insert Cable through Gland

either use flexible conduit



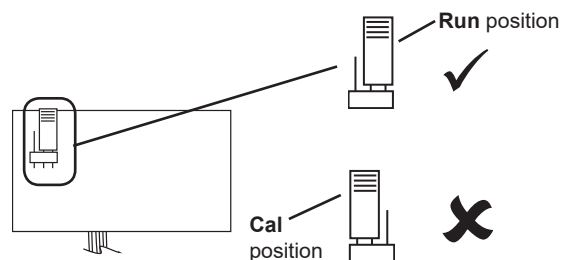
or use M20 cable gland



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#### Check Link is in 'Run' Position

View of pcb from surface mount side



### 3.1 Installation - Mounting (continued)

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Wire to Controller

Note that sensor requires 96 mA from 24 V supply

24V 0V OP

IQ controller

IN  
0 V  
24 V (AUX)

IQ analogue input channel configured for voltage (V)

11

Replace Connector

12

Ensure Clean Environment

clean air

13

Set Minimum Delay

Delay

14

Wait

30 mins

15

Measure Output

0V  
IN  
24V

$V = 1 \text{ to } 3 \text{ V}$  ✓

$V < 1 \text{ or } > 3 \text{ V}$  ✗ - recalibrate

AQ/D Data Sheet 91-2747

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Set Delay

(0 mins) Min (12 mins) Max

Delay

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Replace Lid

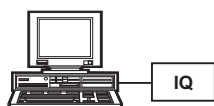
a b c

Note that IP67 (NEMA6) rating is only achieved if the sensor is correctly installed with cable or conduit connection fully tightened

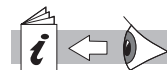
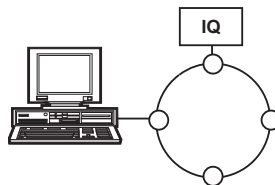
## 3.2 Installation - Configuring

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### Configure IQ



or



IQ Configuration Manual 90-1533

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### Set up IQ Sensor Type

It is recommended to use SET (Software Tool) for the setting of the sensor type module. For all IQ2 series controllers with firmware version 2.1 or greater, or IQ3 series controllers, the following SET Unique Sensor Reference should be used:

#### Air Quality V

Alternatively set scaling mode to 5 (characterise) and enter scaling manually as defined in the table below. Note that for IQ3 the scaling mode and exponent (E) do not need to be set up.

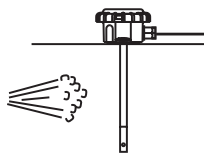
For all other IQ controllers see Sensor Scaling Reference Card TB100521A.

Y	Input type	0 (volts)
E	Exponent	3
U	Upper	100
L	Lower	0
P	Points	2
x	lx	Ox
1	0	0
2	10	100

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### Test System

e.g. return air



0 → 100



*Note that a burn in period of 2 to 3 days is required to ensure a stable and repeatable output.*

## 4 DISPOSAL



#### WEEE Directive:

At the end of their useful life the packaging and product should be disposed of by a suitable recycling centre.

Do not dispose of with normal household waste.  
Do not burn.

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