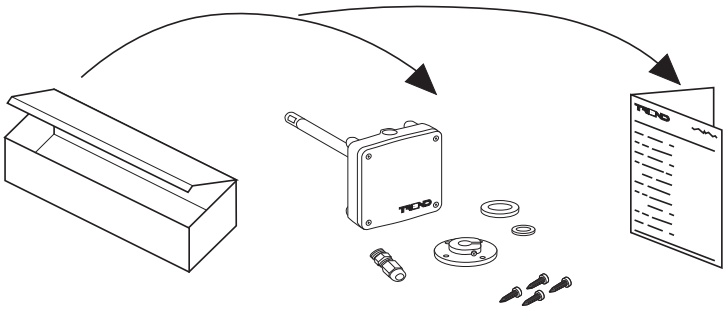
Installation Instructions

AV/D
Duct Air Velocity Sensor

Important: Retain these instructions

Unpacking



Installation Instructions, TG200504

Storing

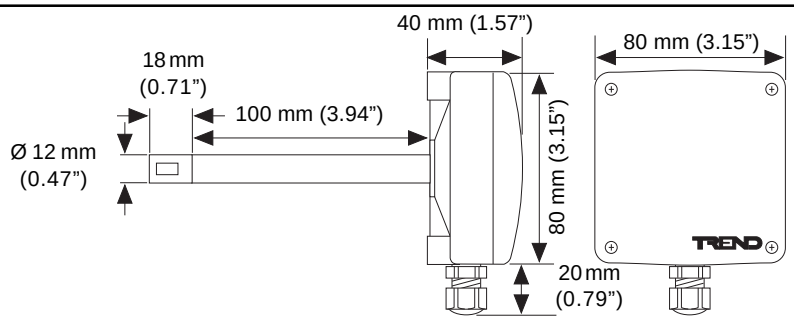
-20 °C (-4 °F) → +50 °C (+122 °F) ✓

0 → 95 %RH ✓

✗

Installation

1 Dimensions



2 Requirements

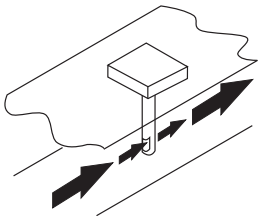
a

-10 °C (14 °F) → +50 °C (122 °F) ✓

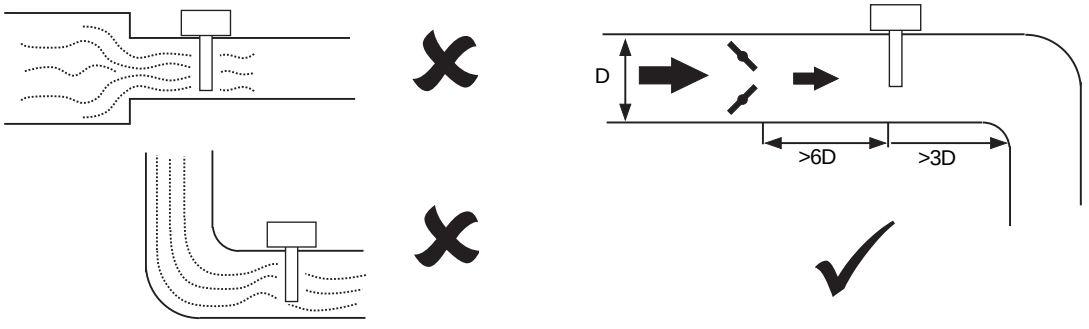
0 %RH → 95 %RH ✓

Protection: IP65, NEMA12

b Align sensor



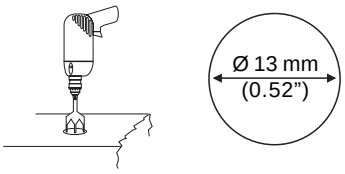
c Smooth flow



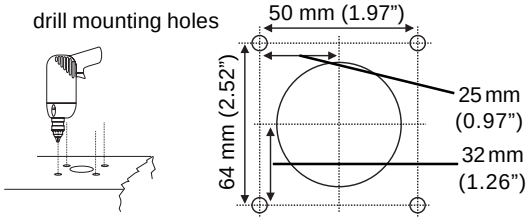
Installation (continued)

3 Mount sensor to duct if mounting direct

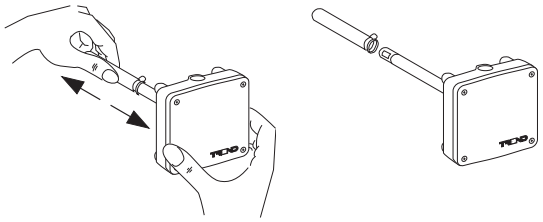
a drill probe hole



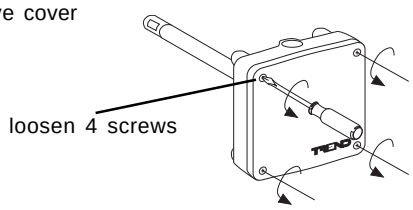
b drill mounting holes



c remove protective cover

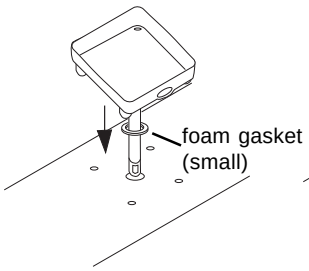


d remove cover

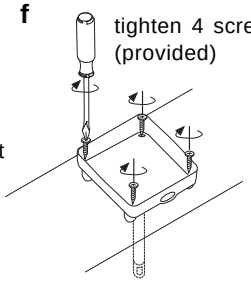


Caution: This unit contains static sensitive devices. Suitable anti-static precautions should be taken throughout the operation to prevent damage to the units.
BS EN100015/1 Basic Specification: protection of electrostatic sensitive devices.

e

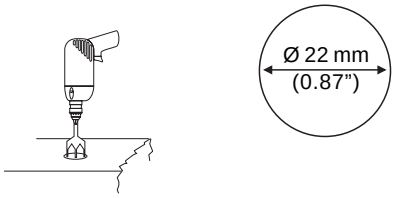


f tighten 4 screws (provided)

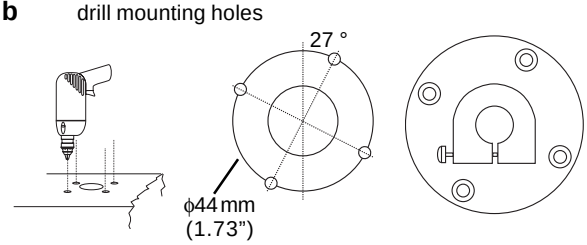


4 Mount sensor on duct if using adjustable depth mounting flange

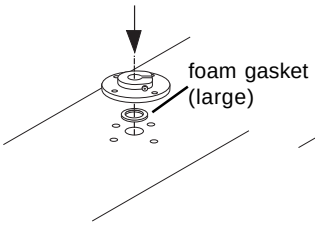
a drill flange hole



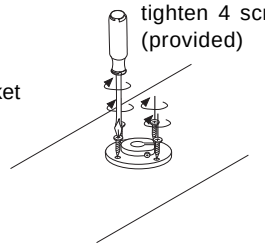
b drill mounting holes



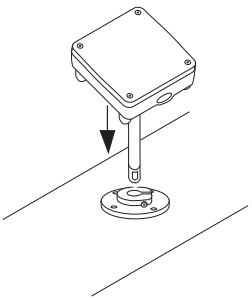
c mount flange



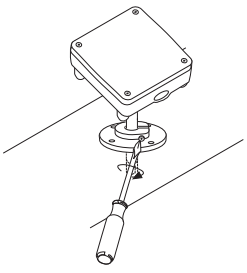
d tighten 4 screws (provided)



e

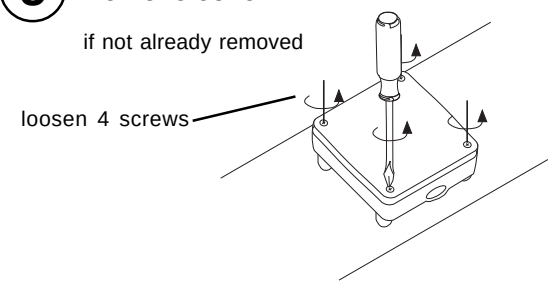


f adjust depth



5 Remove cover

if not already removed

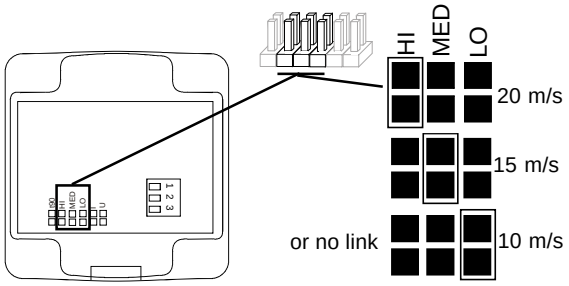


Caution: This unit contains static sensitive devices. Suitable anti-static precautions should be taken throughout the operation to prevent damage to the units.
BS EN100015/1 Basic Specification: protection of electrostatic sensitive devices.

Installation (continued)

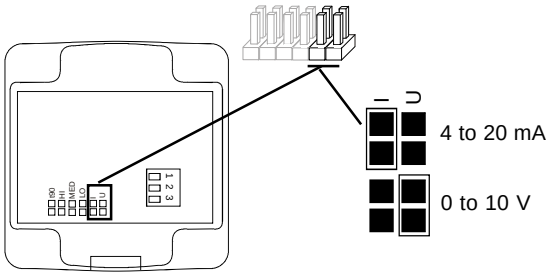
6 Set measuring range

if default unsatisfactory
default = 0 to 10 m/s (OK for IQL17/VAV)



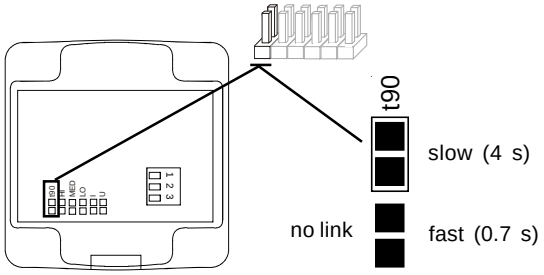
7 Set output signal

if default unsatisfactory
default = 0 to 10 V (OK for IQL17/VAV)

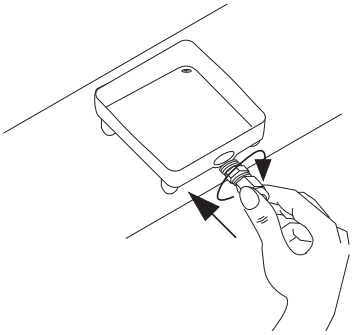


8 Set response time

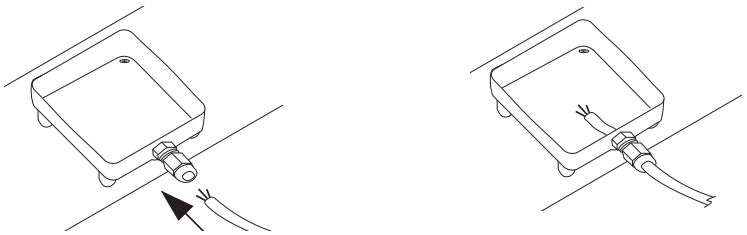
if default unsatisfactory
default = slow (4 s) (OK for IQL17/VAV)



9 Screw in cable gland

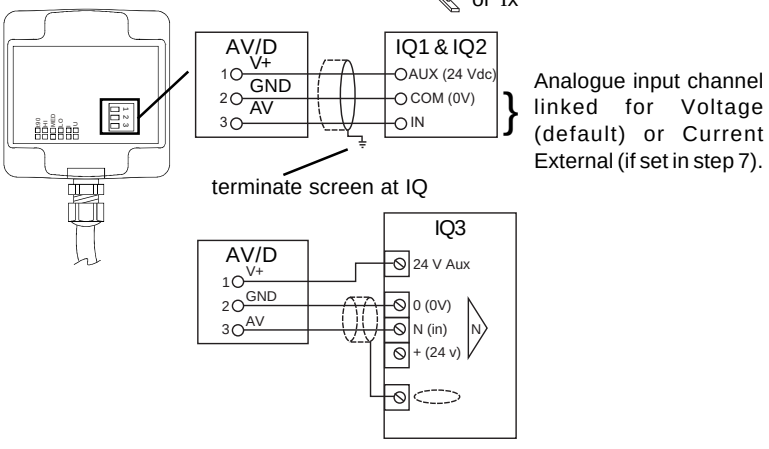


10 Insert cable in gland

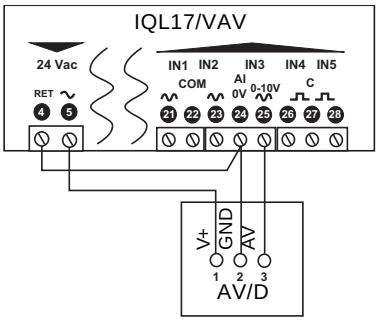


11 Wire to controller

if IQ



if IQL17/VAV

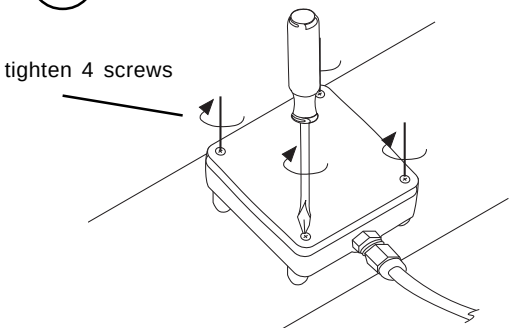


Note that screened cable is not required for sensor wiring to IQLs. If screened cable is used it must be terminated at the controller to its supply earth.

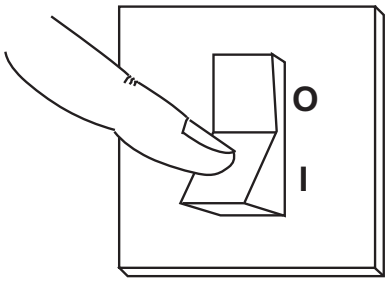
Note that 24 V supply to sensor should be from 24 V auxiliary output power supply or external supply.

Installation (continued)

12 Replace sensor cover

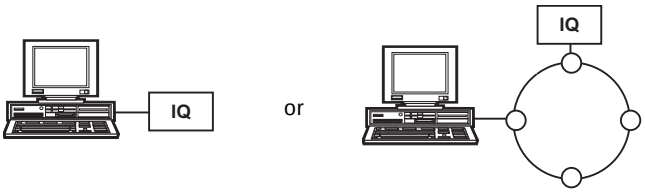


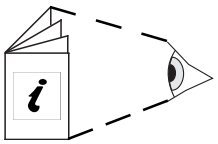
13 Switch on supply to controller



14 Configure IQ (not IQL17/VAV)

Note that if AV/D is left at default link settings, IQL17/VAV requires no sensor scaling configuration.





IQ Configuration Manual 90-1533

15 Set up sensor scaling

If IQ

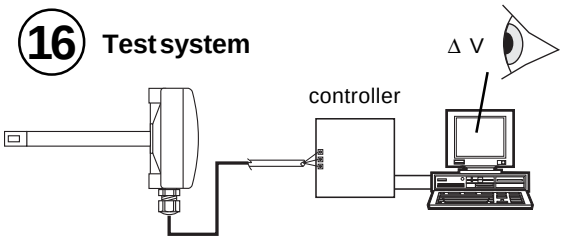
It is recommended to use SET (Software Tool) for the setting of the sensor type module. For all IQ2 series controllers with firmware version 2.1 or greater, or IQ3 series controllers use the appropriate SET Unique Sensor References from the following:

Linked 0 to 10 V Step 7	**Velocity V 10 ms** (DEFAULT)	Linked 4 to 20 mA Step 7	**Velocity I 10 ms**
	Velocity V 15 ms		**Velocity I 15 ms**
	Velocity V 20 ms		**Velocity I 20 ms**

Alternatively enter scaling manually as defined in the adjacent table with sensor type scaling mode set to 5 (characterise). *Note that for IQ3, scaling mode and exponent do not need to be set up.*
For all other controllers see Sensor Scaling Reference Card TB100521A.

Range	Link	Y	E	U	L	P	I1	I2	O1	O2
default (10 m/s)	V, Volt	0 (volts)	2	10.1	0	2	0	10	0	10
	I, Current	2 (current)	2	10.1	0	2	4	20	0	10
15 m/s	V, Volts	0 (volts)	2	15.1	0	2	0	10	0	15
	I, Current	2 (current)	2	15.1	0	2	4	20	0	15
20 m/s	V, Volts	0 (volts)	2	20.1	0	2	0	10	0	20
	I, Current	2 (current)	2	20.1	0	2	4	20	0	20

16 Test system



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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