Installation Instructions

CO2/T/D

Duct CO2 and Temperature Sensor

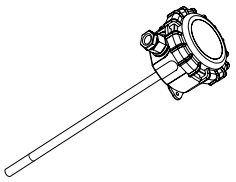
Important: Retain these instructions

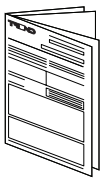
These instructions shall be used by trained service personnel only. If the equipment is used in a manner not specified by these instructions, the protection provided by the equipment may be impaired.

https://partners.trendcontrols.com

CONTENTS

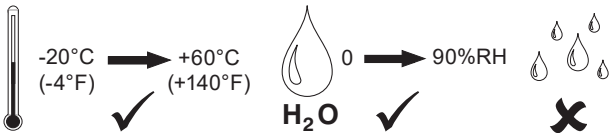
1 BOX CONTENTS





CO2/T/D Installation Instructions (TG201170)

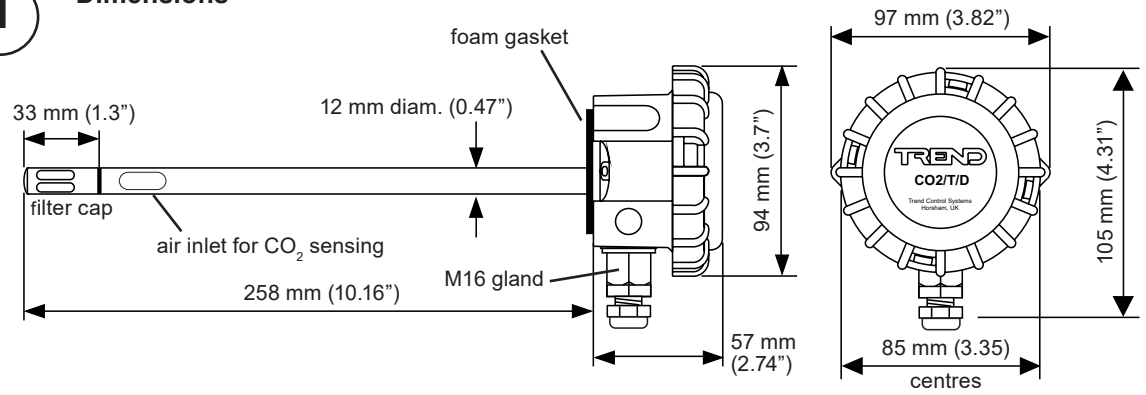
2 STORING



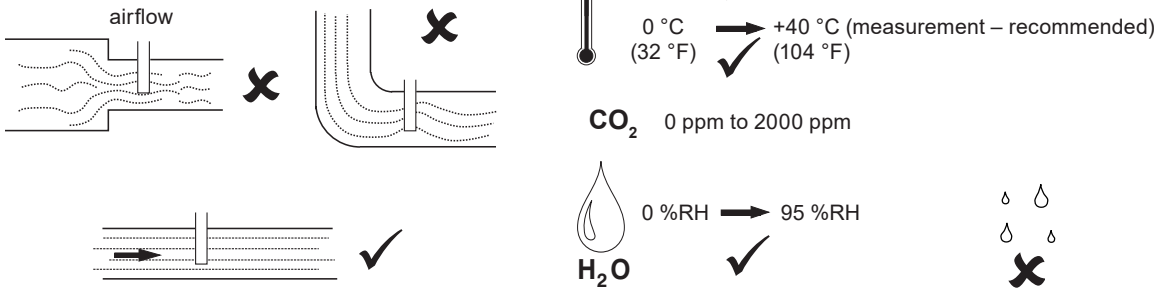
3 INSTALLATION

It is recommended that the installation should comply with the local electrical safety installation practices (e.g. HSE Memorandum of Guidance on Electricity at Work Regulations 1989, USA National Electric Code).

1 Dimensions



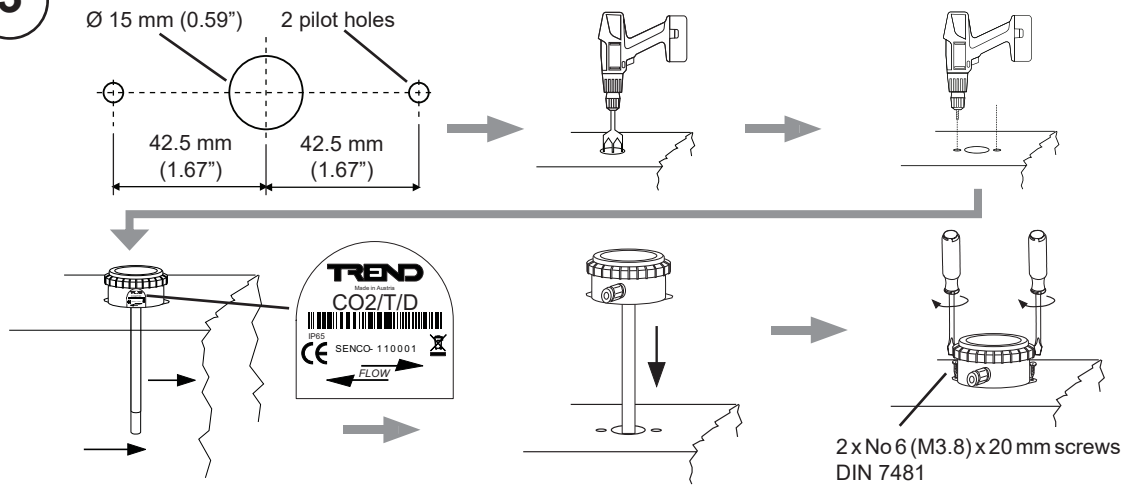
2 Choose Location



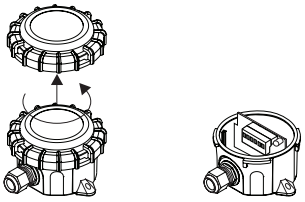
REVA

3 INSTALLATION (continued)

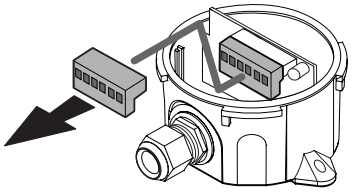
3 Mount in Duct



4 Remove Lid

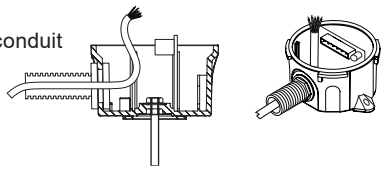


5 Remove Connector

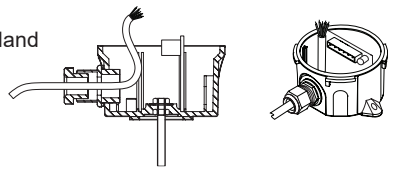


6 Insert Cable through Gland

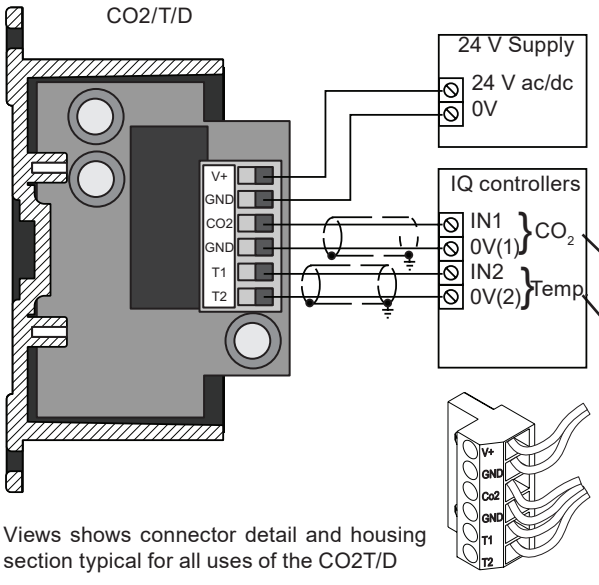
either use flexible conduit



or use M16 cable gland



7 Connect to Controller



Views shows connector detail and housing section typical for all uses of the CO2T/D

When connecting to an IQ4 controller the following limits apply if the IQ4 is to provide power. If the sensor is powered from a separate power supply these limits do not apply.

Controller	Max No of CO2 sensors
IQ41x	0
IQ422/24V	1
IQ422/230V	6
IQ4E/230V	6

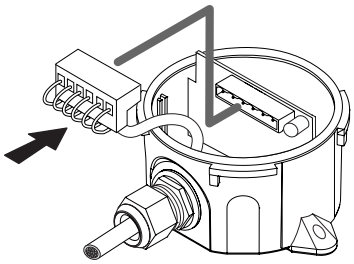
Analogue input channel linked for Voltage (V), ensure correct polarity

Analogue input channel linked for Thermistor (T), polarity independent

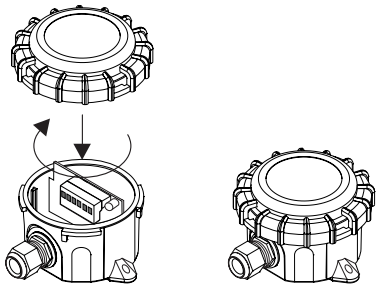
Note: The dedicated 24 Vdc supply should be isolated and greater than 650 mA

3 INSTALLATION (continued)

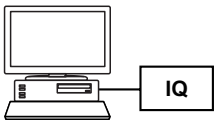
8 Replace Connector



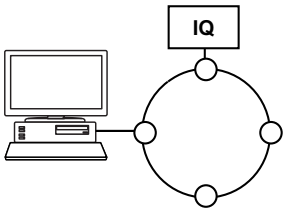
9 Replace Lid

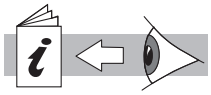


10 Configure Controller



or





IQ Configuration Manual (90-1533)
IQ3 Configuration Manual (TG200768)
IQ4 Configuration Manual (TG201253)

11 Set up IQ Sensor Types

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, IQ3 or IQ4 series controllers, the following SET Unique Sensor References should be used:

Thermistor HTST DT (°C)
Thermistor HTST DT F (°F)
CO2 V (ppm)

Alternatively set scaling mode to 5 (characterise) and enter scaling manually as defined in appropriate tables below. Note that for IQ3 and IQ4, the scaling mode and exponent (E) do not need to be set up.

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

CO_2 concentration voltage output 0 to 10 V for 0 to 2000 ppm

Units		ppm
Y	Input type	0 (volts)
E	Exponent	4
U	Upper	2000
L	Lower	0
P	Points	2
x	Ix	Ox
1	0	0
2	10	2000

Temperature thermistor recommended range: 0 to 40 °C (32 to 104 °F)

Units		°C	°F
Y	Input type	1 (thermistor volts)	
E	Exponent	3	
U	Upper	50	122
L	Lower	-5	23
P	Points	6	
x	Ix	Ox (°C)	Ox (°F)
1	2.641	50	122
2	3.47	40	104
3	4.46	30	86
4	6.663	10	50
5	7.668	0	32
6	8.102	-5	23

3 INSTALLATION (continued)

12 **Test System**

4 MAINTENANCE

Over time, the sensing element may become covered in dust. The dust can be removed using compressed air. Under no circumstances should water or cleansing agents be used on the sensing elements.

5 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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TR CU Certification

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