Single Point High Temperature Air Velocity Transmitter

FXT

Nov. 18

Features

- **High Accuracy**
- **Measurement up to 80° C**
- **Protection Class IP 67**
- **Stainless Steel Probe**
- **Selectable response time**
- **Three different lengths of probe**
- **Selectable measuring range**

Technical data:

Measuring range	0.05…1m/s 0.1…2m/s 0.20…10m/s 0.20…20m/s (Measuring range can be selected by dip-switch)
Accuracy range	At 50%rH and 1013h
0…1m/s	±(0.1m/s+3% of measurement)
0…2m/s	±(0.15m/s+3% of measurement)
0…10m/s	±(0.5m/s+3% of measurement)
0…20m/s	±(0.7m/s+3% of measurement)
Temperature Measuring range	-10…+60°C
Temperature Accuracy	±0.3°C
Relative Humidity Measuring range	0…100%rH
Accuracy rH	±1,5%rH (10…90%rH) ±2,0%rH (in the remaining range) for T= 15…35°C ---------- ±(1,5+1.5% of the displayed value) %rH in the remaining temperature range
rH Output Range	0…100%rH
Output (according to the models)	4…20mA, RL < 500Ω 0…10Vdc, RL > 10kΩ
Power supply	18…40Vdc or 12…24Vac±10%

Application

The FXT transmitters are employed to control air speed in air conditioning and ventilation systems (HVAC / BEMS) in the following sectors:

- pharmaceutical
- museums
- clean rooms
- ventilation ducts
- industrial sectors
- households
- crowded places
- cafeterias
- auditoriums
- gymnasiums
- farms with large numbers of animals.

The sensors in combination with accurate electronics guarantee precise and reliable measurements over time.

The sensor for air speed is a thin film, the probe sheath is AISI304, the filter for relative humidity of 20µ wire mesh, materials that can be used in hostile areas.

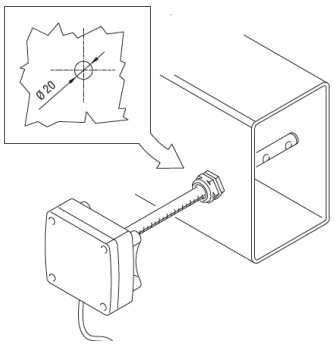
Ordering Codes

FXT 010/150	Air Velocity Transmitter 150mm 0-10Vdc
FXT 010/250	Air Velocity Transmitter 250mm 0-10Vdc
FXT 010/350	Air Velocity Transmitter 350mm 0-10Vdc
FXT 420/150	Air Velocity Transmitter 150mm 4-20mA
FXT 420/250	Air Velocity Transmitter 250mm 4-20mA
FXT 420/350	Air Velocity Transmitter 350mm 4-20mA
MFC 12	Mouning Flange
Gland	Metal Cable Gland
BICO	Biconnical Connetion, universal

Output with humidity and temperature on request

db_fxt_uk.indd

Response time (selected by jumper)	0.2s, Fast 2.0s , Slow
Operating temp. **Electronics** **Probe**	 0…+60°C -10…+80°C
Compensation temperature	0…+80°C
Storage temperature	-10…+70°C
Electronics protection class	IP67
Sensor working conditions	Clean air, rH<80%
Case dimensions	80x84x44 (Without probe)

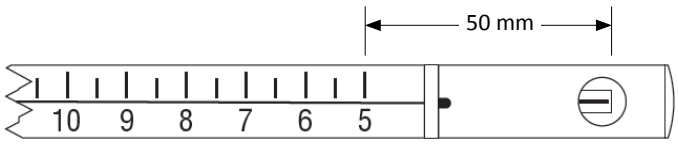


Installation notes

The window of the sensor (or of the sensors) must be oriented in the direction of flow.

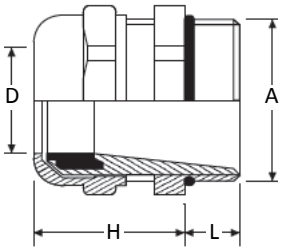
To facilitate the proper positioning of the probe, eg. inside of a pipe, a graduated scale, engraved along the stem, indicates the depth of introduction of the window speed sensor in the channel.

To properly orient the sensor to the flow, once introduced into the channel, the air speed window and line on the base of the scale are on the same axis.

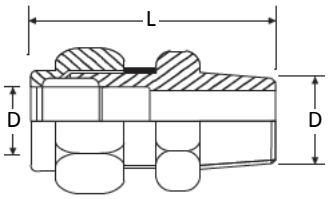


To fix the probe inside a ventilation duct, a pipe , etc. you can use, for example, MFC flange, a metal cable gland (Ø10…14mm) or a 3/8" universal biconical connection.

MFC Flange

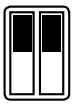
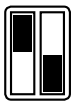
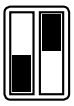
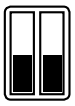


Metal cable gland
D = 10…14mm
L = 6.5mm
H = 23mm
A = PG16



Universal biconical connector
L = 35mm
D = 14mm
A = 3/8"

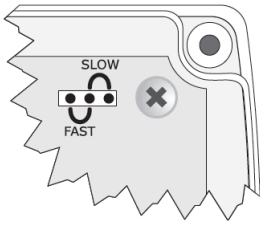
The transmitters are factory calibrated and no further adjustments are required.
To select the air speed **output range** by using the dual dip-switch on the board, please see the chart below:

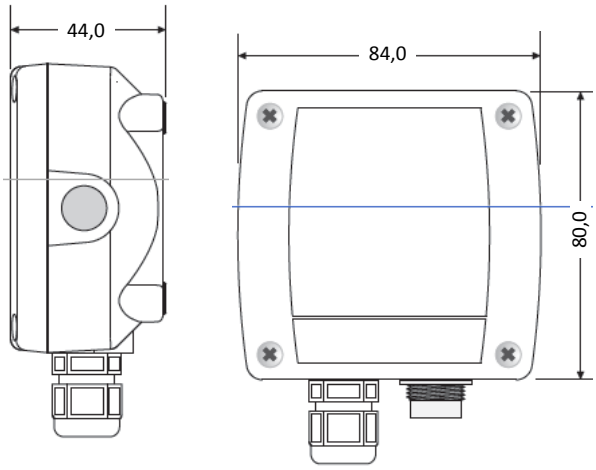
Output range	**0…1m/s**	**0…2m/s**	**0…10m/s**	**0…20m/s**
Dip-switch position				

Dip-switch should always be at the end of its final limit in both directions.

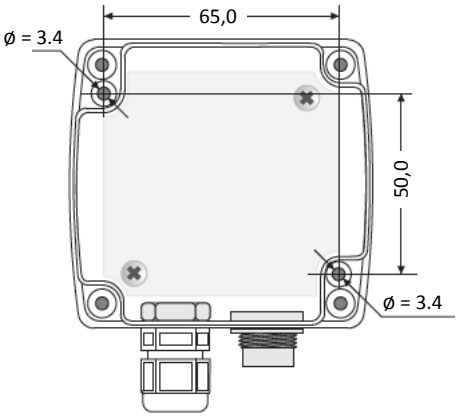
The jumper on the board selects an **integrated response time in 0.2s in the FAST position and in 2s in the SLOW position.**

Please set the integration time at SLOW in case of turbulence, otherwise please select the FAST position.





Template

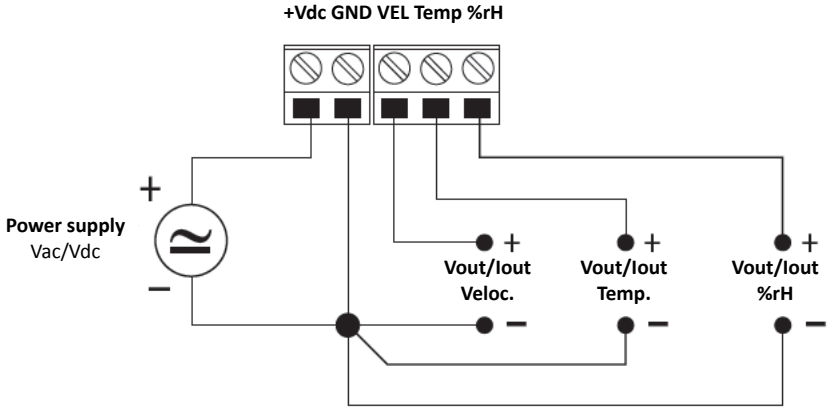


Electrical connections

Power supply
Power the instrument at the voltage shown in the electrical specifications:

Power supply terminals are marked as +Vdc and GND.

Analogue output
According to the model, the output signal comes from:
- VEL and GND terminals for air speed transmitters
- VEL and GND, Temp and GND terminals for temperature / air speed transmitters
- VEL and GND, Temp and GND, %RH and GND terminals for temperature / relative humidity / air speed transmitters.



Probe dimensions

FXT series