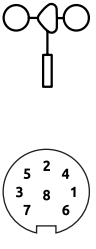

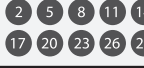














THIES FIRST CLASS ADVANCED X | CUP ANEMOMETER

SENSOR WIRING TABLE

Sensor Model	Sensor Pin		Kintech Colors		Orbit 360		
					Section	Terminal	Type
	1	SIG		White	Frequency Channels		Signal
	2	GND		Brown	Independent power supply 12V/24V DC		
	3	Us (+)		Green			
	4	Data (-)		Grey	RS485		B
	5	Data (+)		Pink	RS485		A
	6	Data GND		Yellow	RS485		(-)
	Shield			Yellow-Green	Power Input		
	7	Heating (+)		Brown	Independent power supply 24 AC/DC		
8	Heating (-)		Blue				

Note: Base sensor view / Soldering connector view.

HOW TO CONFIGURE IN ATLAS

Open Atlas and go to the data logger you are working on. Scroll to the “channels” section and set the information related to this sensor. The frequency output signal from the instrument must be connected to one of the frequency channels (FRQ1 to FRQ10) on the Orbit 360. The variables from the digital output signal can be chosen (or assigned) to either a frequency or an analog channel on the Orbit 360 according to the list here below.

Note: The sensor has to be preconfigured before its configured in Atlas.

Example:

Serial bus 1 baud rate: 9600bps

Bus: Serial 1 >>> ID: A >>> Sensor model: Thies X Advanced >>> Name: Thies X Advanced_SERIAL1_A

- Group: Frequency channels
- Sensor Type: Anemometer
- Sensor Model: **Thies First Class Advanced**
- Sensor Type: Serial device
- Sensor Model: **Thies X Advanced_SERIAL1_A**
- Sensor Model: **Corrected Horizontal Speed**
- Sensor Model: **Vibration Freq X**
- Sensor Model: **Vibration Freq Y**
- Group: Analog channels
- Sensor Type: Serial device
- Sensor Model: **Thies X Advanced_SERIAL1_A**
- Sensor Model: **Pressure**
- Sensor Model: **TILT**
- Sensor Model: **Vibration Freq X**
- Sensor Model: **Vibration Freq Y**
- Sensor Model: **Vibration Acc X**
- Sensor Model: **Vibration Acc Y**

THIES FIRST CLASS ADVANCED X | CUP ANEMOMETER

USING ANEMOMETER THIES FIRST CLASS ADVANCED X WITH THE ORBIT 360 PREMIUM DATA LOGGER

The Orbit 360 Premium data logger is fully compatible with the Thies First Class Advanced X cup anemometer and can store variables from up to 8 devices simultaneously on each of the three RS485 buses.

The Thies First Class Advanced X cup anemometer features both a traditional frequency output signal as well as a new digital output signal. The traditional frequency output from the instrument is used to collect the non-corrected horizontal wind speed (no instrument calibration is applied to the frequency signal). The digital output signal is used to collect the remaining variables from the instrument, including density corrected wind speed, tilt, vibration etc.

Example

In the example below, Atlas is used to configure a Thies First Class Advanced X anemometer.

- Non-corrected wind speed from the frequency output is connected to channels FRQ1
- Corrected wind speed from the digital output is mapped to channel FRQ2
- Vibration Freq X from digital output is mapped to channel FRQ3
- Vibration Freq Y from digital output is mapped to channel FRQ4
- Pressure from digital output is mapped to analog channel ANL1
- TILT from digital output is mapped to channel ANL2
- Vibration Acc X from digital output is mapped to channel ANL3
- Vibration Acc Y from digital output is mapped to channel ANL4

The screenshot displays the Atlas configuration interface, divided into three main sections: Serial channels, Frequency channels, and Analog channels.

Serial channels: A table with columns for Bus, ID, Sensor model, and Name. One channel is configured: SERIAL1, ID A, Sensor model Thies First Class Advanced X, Name TFCAX_SERIAL1_A.

Frequency channels / Serial devices: A table with columns for Channel, Sensor type, Sensor model, Height, Name, Std Dev, Min, Max, and T130. It includes a note: "FRQ1 to FRQ10 are used for connecting frequency output sensors or mapping RS-485 sensor variables. FRQ11 to FRQ16 are exclusively for mapping RS-485 sensor variables or sensors connected via the Frequency Channel Expander." The table lists four channels:

Channel	Sensor type	Sensor model	Height	Name	Std Dev	Min	Max	T130
FRQ1	Anemometer	Thies First Class Advanced	100	F1_WS_100_0_TFCA	On	On	On	On
FRQ2	Serial device	TFCAX_SERIAL1_A	100	F2_DG_100_0_S1A_HS	On	On	On	On
FRQ3	Serial device	TFCAX_SERIAL1_A	100	F3_DG_100_0_S1A_VFX	On	On	On	On
FRQ4	Serial device	TFCAX_SERIAL1_A	100	F4_DG_100_0_S1A_VFY	On	On	On	On

Analog channels / Serial devices: A table with columns for Channel, Sensor type, Sensor model, Height, Name, Std Dev, Min, and Max. It includes a note: "ANL1 to ANL15 are used for connecting analog output sensors or mapping RS-485 sensor variables. ANL16 to ANL23 are exclusively for mapping RS-485 sensor variables." The table lists four channels:

Channel	Sensor type	Sensor model	Height	Name	Std Dev	Min	Max
ANL1	Serial device	TFCAX_SERIAL1_A	100	A1_DG_100_0_S1A_P	On	On	On
ANL2	Serial device	TFCAX_SERIAL1_A	100	A2_DG_100_0_S1A_Tilt	On	On	On
ANL3	Serial device	TFCAX_SERIAL1_A	100	A3_DG_100_0_S1A_VAX	On	On	On
ANL4	Serial device	TFCAX_SERIAL1_A	100	A4_DG_100_0_S1A_VAY	On	On	On

MEASNET CALIBRATION

Several options for Measnet calibration of the Thies First Class Advanced X anemometer are available. For more information, please contact us on support@kintech-engineering.com.

Last modified: 06.08.2020

For more information please contact support@kintech-engineering.com or visit our website www.kintech-engineering.com