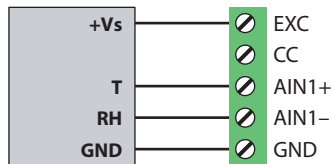


blueberry COMPACT: Sensor Connections and Measurement Functions for 'Standard Setup'

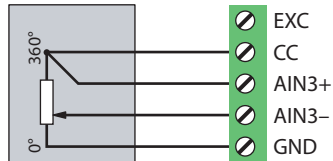
Analogue Sensors

Thermo Hygro Sensor



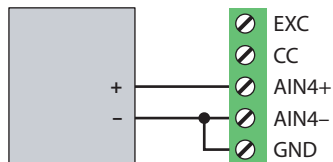
Expert Setup
Poll Command: **#100 s1s7/r**
Functions: **Temp (°C) = 20 * b1 - 40**
Hum (%RH) = 20 * b2
(Type: Wilmers 0538)

Potentiometric Wind Vane



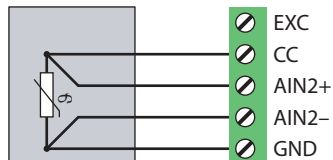
Analog Inputs
Function: **AIN1 Dir (°) = Direction 0..360 * 1 + 0**
Replace '0' by the offset to magnetic North.
(Type: Wilmers 0315, Thies 4.3150.10.212)

Thermopile Pyranometer



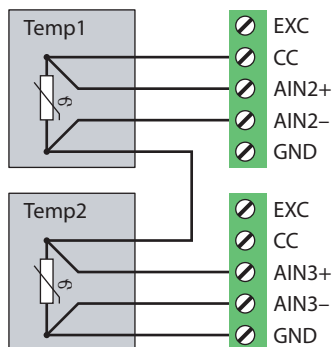
Analog Inputs
Function: **AIN4 Rad (W/m²) = Voltage * 1 / 0.000015**
(Type: Wilmers 0890, Luxsolar Pyranometers
Kipp&Zonen CMP Series, S=1.5µV/(W/m²))

Pt100 Temperature Sensor



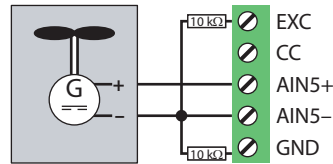
Analog Inputs
Function: **AIN2 Temp (°C) = Temperature**
(Type: Wilmers 0412, 0431, 0441)

Pt100 Temp. Difference Sensor



Expert Setup
Poll Command: **#100 t2u3i2/r**
Functions: **Temp1 (°C) = b1**
Temp2 (°C) = (-0.39083 + (0.39083^2 + 0.000231 * (100 - (1000*b2/b3)))^0.5) / (-0.0001155)
DiffTemp (K) = Temp2 - Temp1
(Type: Wilmers 0412, 0431, 0441)

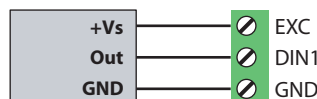
D.C. Generator Anemometer



Analog Inputs
Function: **AIN5 vVertical (m/s) = Voltage * 22.50**
(Type: Wilmers 0276, R.M.Young 27106T)

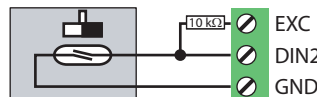
Digital Sensors

Opto / TTL Anemometer



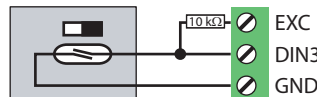
Digital Inputs
Function: **DIN1 vWind (m/s) = Frequency TTL * 0.046 + 0.2**
Option: no offset when zero
(Type: Wilmers 0227, 0228, 0293, Thies 4.3351.xx.000)

Reed Switch Anemometer



Digital Inputs
Function: **DIN2 vWind (m/s) = Frequency TTL * 0.62 + 0.2**
Option: no offset when zero
(Type: Wilmers 0281, RISØ P2546A)

Tipping Bucket Rain Gauge

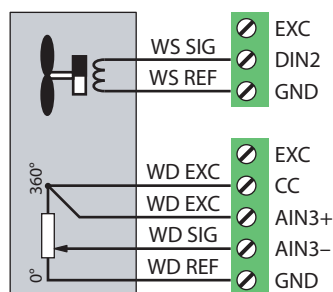


Standard Setup
Function: **DIN3 Rain (mm) = Counter * 0.1**
(Type: Wilmers 0821, 0822, R.M.Young 52202, 52203)

Function: **DIN3 Rain (mm) = Counter * 0.2**
(Type: Wilmers 0831, 0832, Davis 7852)

Combined Sensors

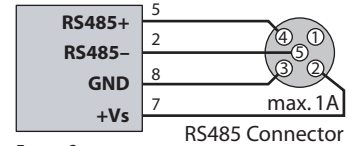
RMV Wind Monitor 05103



Digital Inputs
Function: **DIN2 vWind (m/s) = Frequency AC * 0.098 + 0.2**
Option: no offset when zero
Analog Inputs
Function: **AIN3 Dir (°) = Direction 0..360 + 0**
Replace '0' by offset to magnetic North.
(Type: Wilmers 0271, R.M.Young 05103)

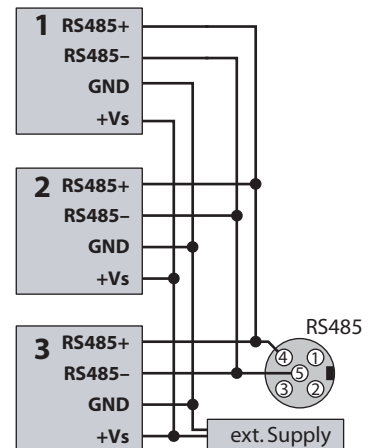
Serial Sensors

Sonic Anemometer (unheated)



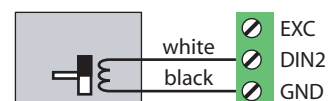
Expert Setup
Poll Command: **02TR5/r**
Function: **vWindX (m/s) = b1**
vWindY (m/s) = b2
vWindZ (m/s) = b3
TempSonic (°C) = a4
(Type: Wilmers 0256, Thies 4.3830.21.400)

3 x Sonic Anemometer (heated)



Expert Setup
Poll Command: **01TR2/r**
02TR2/r
03TR2/r
Function: **vSonic1 (m/s) = b1**
DirSonic1 (°) = (b2 + 0) % 360
TempSonic1 (°C) = b3
vSonic2 (m/s) = c1
DirSonic2 (°) = (c2 + 0) % 360
TempSonic2 (°C) = c3
vSonic3 (m/s) = d1
DirSonic3 (°) = (d2 + 0) % 360
(Type: Wilmers 0255, Thies 4.3820.xx.400)

Small AC Signal Anemometer



Standard Setup
Input: **DIN2**
Function: **vWind (m/s) = Frequency AC * 0.765 + 0.35**
Option: no offset when zero
(Type: NRG #40)

Further infos about the
blueberry COMPACT:



For further details please see the data logger manual or visit <http://wilmers.com/blueberry-compact>.

File: 0141-blueberry-COMPACT-(Sensor Connections for Standard Setup)

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