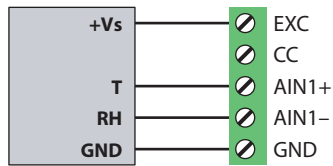


blueberry COMPACT: Sensor Connections and Measurement Functions for 'Expert Setup'

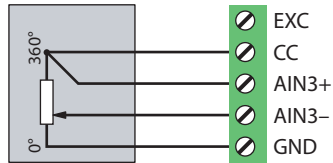
Analogue Sensors

Thermo Hygro Sensor



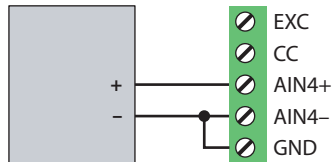
Poll Command: **#100 s1s7\r**
Function: **Temp (°C) = 20 * b1 - 40**
Hum (%RH) = 20 * b2
(Type: Wilmers 0538)

Potentiometric Wind Vane



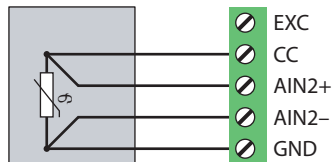
Poll Command: **#100 p3\r**
Function: **Dir (°) = (360 * b1 + 0) % 360**
(Type: Wilmers 0315, Thies 4.3150.10.212)

Thermopile Pyranometer



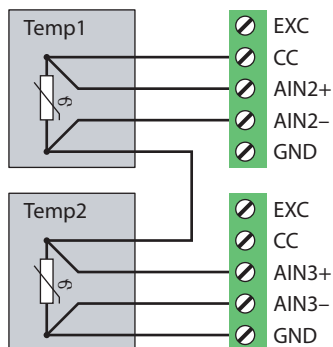
Poll Command: **#100 u4\r**
Function: **Rad (W/m²) = b1 / 0.000015**
(Type: Wilmers 0890, Kipp&Zonen CMP Series, S=15µV/(W/m²))

Pt100 Temperature Sensor



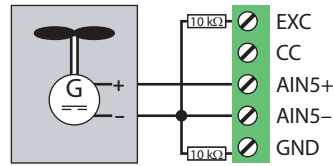
Poll Command: **#100 t2\r**
Function: **Temp (°C) = b1**
(Type: Wilmers 0412, 0441)

Pt100 Temp. Difference Sensor



Poll Command: **#100 t2u3i2\r**
Function: **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, 0441)

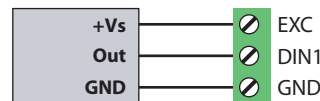
D.C. Generator Anemometer



Poll Command: **#100 u5\r**
Function: **vVertical (m/s) = 22.50 * b1**
(Type: Wilmers 0276, R.M.Young 27106T)

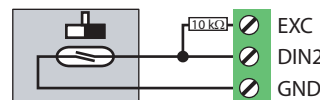
Digital Sensors

Opto / TTL Anemometer



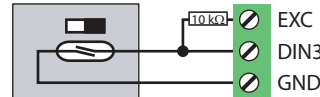
Poll Command: **#100 f1\r**
Function: **vWind (m/s) = 0.046 * b1 + 0.2 * (b1 > 0)**
(Type: Wilmers 0227, 0228, 0293, Thies 4.3351.xx.000)

Reed Switch Anemometer



Poll Command: **#100 f2\r**
Function: **vWind (m/s) = 0.62 * b1 + 0.2 * (b1 > 0)**
(Type: Wilmers 0281, RISØ P2546A)

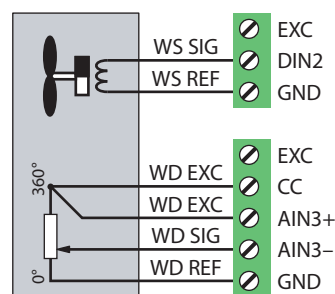
Tipping Bucket Rain Gauge



Poll Command: **#100 n3\r**
Function: **Rain (mm) = 0.1 * b1**
(Type: Wilmers 0821)

Combined Sensors

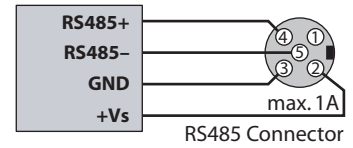
RMY Wind Monitor 05103



Poll Command: **#100 f2p3\r**
Function: **vWind (m/s) = 0.098 * b1 + 0.2 * (b1 > 0)**
Dir (°) = (360 * b2 + 0) % 360
(Type: Wilmers 0271, R.M.Young 05103)
Signal type for DIN2 must be set to **Frequency AC**

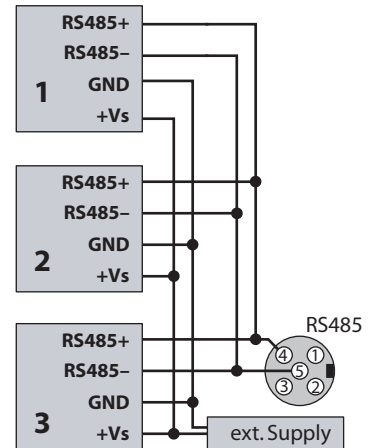
Serial Sensors

Sonic Anemometer (unheated)



Poll Command: **02TR5\r**
Function: **vWindX (m/s) = b1**
vWindY (m/s) = b2
Wilmers 0256) **vWindZ (m/s) = b3**

3 x Sonic Anemometer (heated)



Poll Command: **01TR2\r**
02TR2\r
03TR2\r
Function: **vSonic1 (m/s) = b1**
DirSonic1 (°) = (b2 + 0) % 360
Wilmers 0255) **TempSonic1 (°C) = b3**
vSonic2 (m/s) = c1
DirSonic2 (°) = (c2 + 0) % 360
TempSonic2 (°C) = c3
vSonic3 (m/s) = d1
DirSonic3 (°) = (d2 + 0) % 360
TempSonic3 (°C) = d3

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 Expert Setup)-Overview

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