

### 18.2.2 External Temperature Sensor

All models of the WS family can be used with an external temperature sensor.

For different application various types of NTC sensor are in supply:

- WT1 for temperature acquisition of devices and surfaces
- WST1 for mounting in the road surface (road surface temperature)

Mounting / installation of the temperature sensors is shown in the sensor manual.

### 18.2.3 External Rain Gauge

All models of the WS family without integrated precipitation detection can be used with an external rain gauge. Models WS400-UMB, WS600-UMB, WS401-UMB, WS601-UMB with R2S sensor resp. integrated tipping bucket **cannot** be equipped with an external rain gauge.

The measurement values of the external rain gauge are on the same channels as the data of the internal precipitation sensors of WS400-UMB, WS600-UMB, WS401-UMB, and WS601-UMB.

The external rain gauge WTB100 uses the same technology as the integrated rain gauge of models WS401-UMB and WS601-UMB.

The resolution of the rain gauge WTB100 can be modified by the reduction ring delivered with the sensor from 0.2mm to 0.5mm.

In principle, all rain sensors with bounce-free reed contact (normally open or normally closed) and with a resolution of 0.1 mm, 0.2 mm, 0.5 mm or 1.0 mm can be used.



**Note:** To get the correct amount of rain this “mechanical” selection must be also be set in compact weather stations configuration.

The setting is done with the UMB Config Tool by the same procedure as with WS401-UMB and WS601-UMB (s. Chap.10.2.8).

The WS601/401-UMB's advices for installation (Chap.7.3.4) and maintenance (Chap.12.1) are as well valid for the external rain gauge.

Example with WS501-UMB and WTB100 without reduction ring:

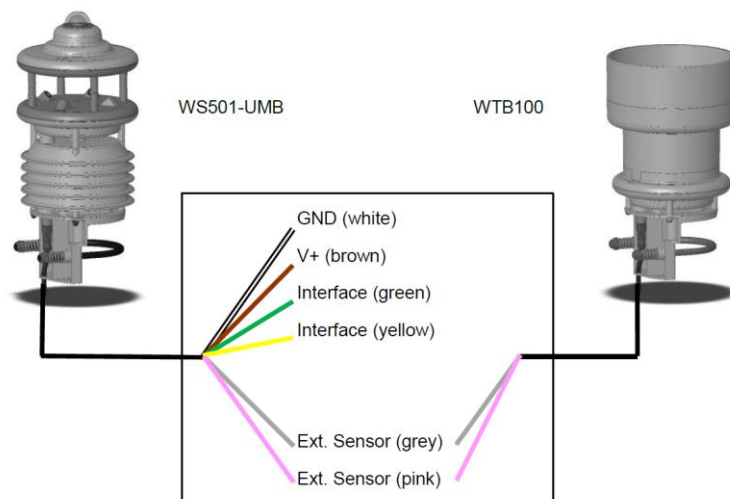


Figure 33: Example WS501-UMB and WTB100

