

**Instrument #**

### Example Data Collection Sheet

Each student will calculate their own pressures from recorded observations.

***The WxProj data collection sheet remains on the roof top clipboard at all times!***



**Screen X    Instrument #**

Weather Observation &amp; Analysis Project (WxProj)

### Example Data Collection Sheet

[illegible]

***The WxProj data collection sheet remains on the roof top clipboard at all times!***

Which instrument we use outside depends on the weather conditions at the measurement time.

Always think about being time efficient.

Psychrometers can cool,  $T_w$  can even freeze while you make other observations /measurements!

# Humidity Equipment

## Sling Psychrometers

Always report the correct instrument precision!

### Remember:

Precision is based on half the instrument's smallest division ( $1^{\circ}\text{C}$  for these instruments).

So report either  $\#.0^{\circ}\text{C}$  or  $\#.5^{\circ}\text{C}$  values.



Weksler  
brand

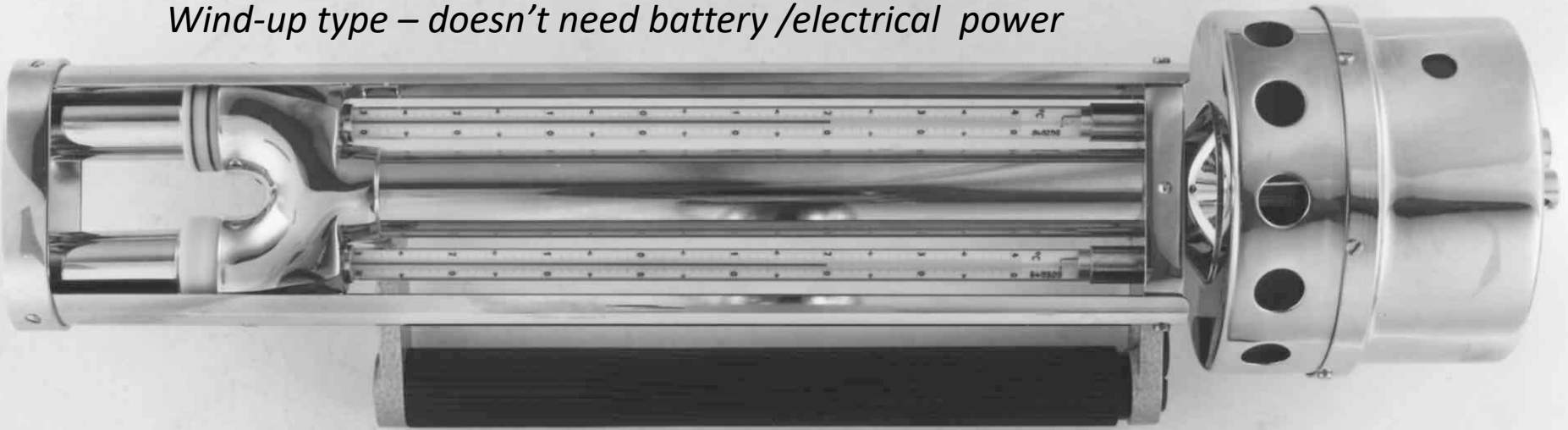


Bacharach  
brand

# Humidity Equipment

**Aspirated Psychrometers** (also known as Assmann psychrometers)

*Wind-up type – doesn't need battery /electrical power*



We have one battery powered & one wind-up aspirated psychrometers.



# Humidity Equipment

## Aspirated Psychrometers

(also called Assmann psychrometers)

**Expensive due to very sensitive thermometers!**

Responds to people reading it.....

**Ours:** 2 types:

Battery & Wind-up

**What is the most precise reading?**

Smallest increments:  $0.2^{\circ}\text{C}$

Reading precision:  $0.1^{\circ}\text{C}$

To determine the scale:

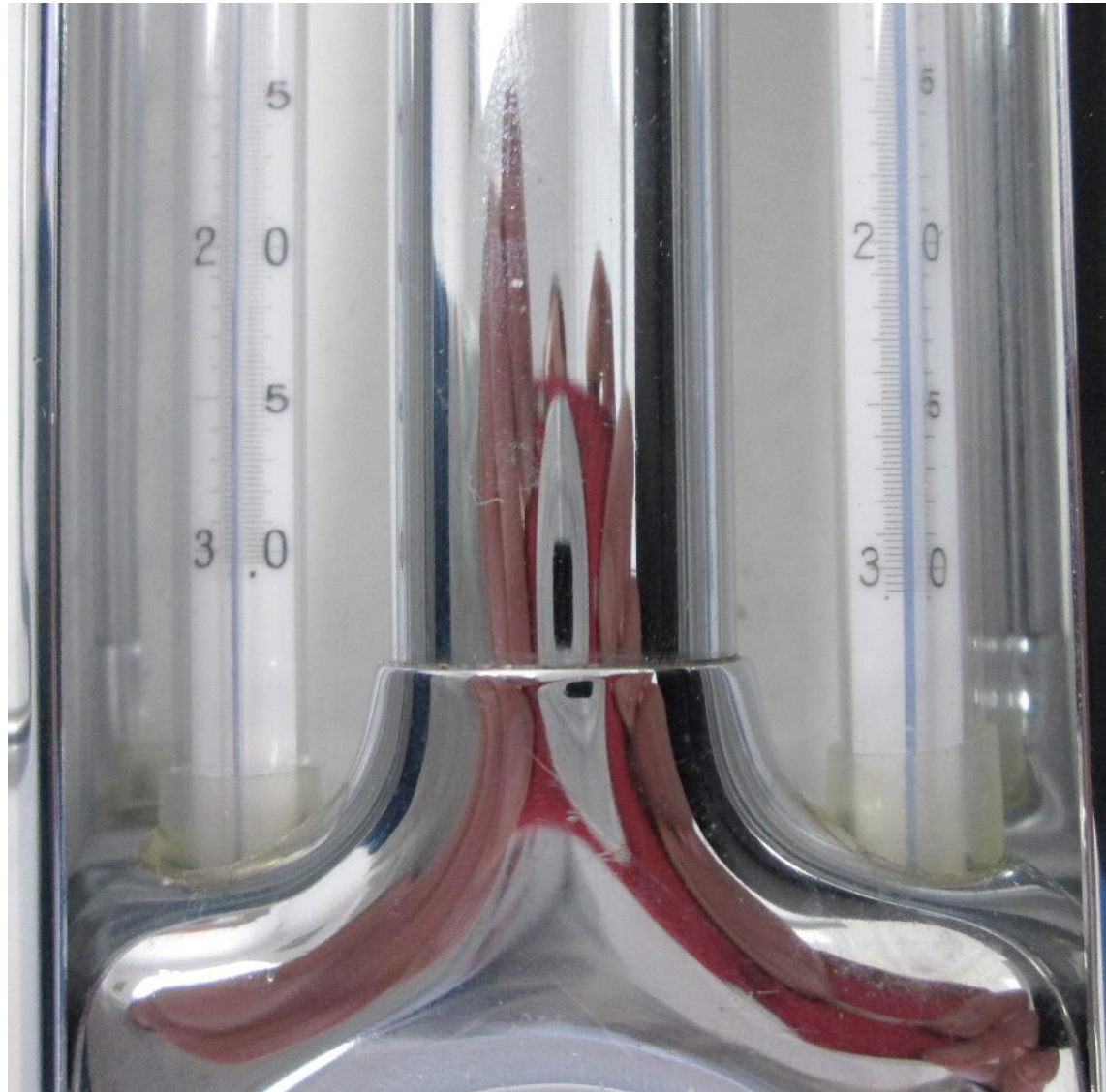
Find (in this order):

$0^{\circ}\text{C}$  to see the  $+$  or  $-$  temperatures

$5^{\circ}\text{C}$  markings

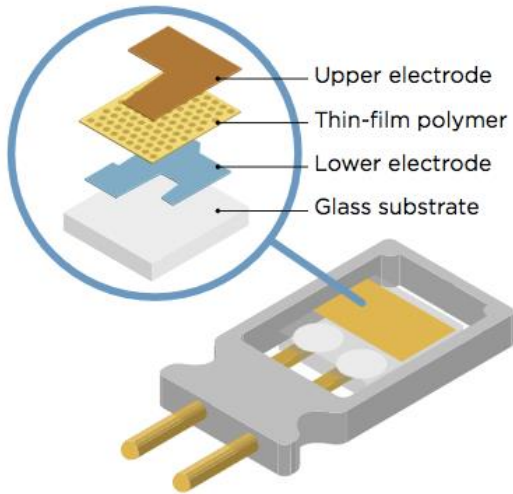
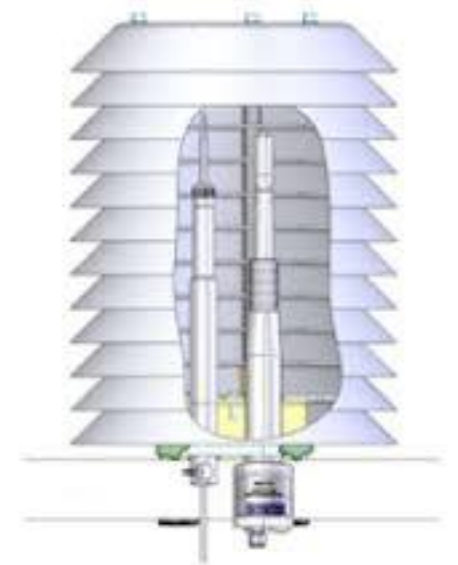
$1^{\circ}\text{C}$  markings

$0.2^{\circ}\text{C}$  markings



# Humidity Equipment

## Electronic relative humidity & temperature probes



*Structure of the HUMICAP sensor.*

