





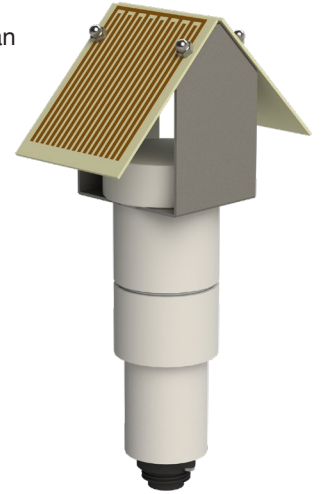
-  It perfectly simulates a real leaf
-  Ease of installation and use
-  Very robust device
-  Virtually maintenance free

# Description

TBF is a basic sensor for agrometeorology, typically used to investigate with a very high precision the persistence of water drops above the leaf surface. This indicator is fundamental to measure the residence time of water drops on the leaves, in order to identify phytopathological risks or the leaching of treatments from crops.

TBF sensing element consists of two gilded copper electrical circuits placed on glassonite plates, which are specifically tilted to simulate a real leaf. Once the surface gets wet (for rain, condensation, dew, ice, etc.), the system enters into conduction closing the electrical contact.

Sensor body is overall made of high-quality plastic, but particularly the sensing element is mounted on an anticorrosive aluminium alloy support. The protection screen is made of non-hygroscopic, UV resistant and low thermal capacity plastic material, to ensure long-term stability. The sensor is supplied with power and signal cable (4 m).



## Main features

- **Easy to install**
- **It perfectly simulates a real leaf**
- **Virtually maintenance free (6 months cleaning needed)**

## Technical Specifications\*

| Measurement performance             |  |         |     |
|-------------------------------------|--|---------|-----|
| <b>Leaf Wetness</b>                 |  |         |     |
| Transducer                          | Two gilded copper electrical circuits placed on glassonite plates      |         |     |
| Measurement range                   | 0÷100% (Dry and Wet)   |         |     |
| Resolution                          | 0.59%  |         |     |
| Accuracy                            | ± 0.5  |         |     |
| Repeatability                       | ± 3%   |         |     |
| Stability                           | <± 5% per year   |         |     |
| <b>Operating conditions</b>         |  |         |     |
| Temperature                         | -20°C ÷ +60°C  |         |     |
| Humidity                            | 0% ÷ 100%  |         |     |
| <b>Outputs</b>                      |  |         |     |
| Output                              | Open drain (relay contact upon request); Tension                       |         |     |
| Maximum tension open drain output   | 24 V   |         |     |
| Maximum current open drain output   | 400 mA   |         |     |
| Maximum tension reed contact output | 30 V   |         |     |
| Maximum current reed contact output | 1000 mA  |         |     |
| <b>Power supply and Consumption</b> |  |         |     |
| Voltage supply                      | 6 ÷ 22 Vdc   |         |     |
| Consumption (mA)                    | Min  | Typical | Max |
| Open drain                          | -  | 1.5     | -   |
| Relay contact                       | -  | 15      | -   |
| <b>Mechanical specifications</b>    |  |         |     |
| Protective body                     | Plastic and stainless steel, sensing element in copper and glassonite. |         |     |
| Weight                              | 410 g  |         |     |
| Dimensions                          | 135 x 67 x 232 mm  |         |     |
| Electrical connections              | IP67 / 4-pole male connector   |         |     |
| <b>Ordering codes</b>               |  |         |     |
| Open drain/Relay contact            | PSM-t017-TBF-N   |         |     |

\*Changes on technical performances can be applied upon request of specific calibration