



Precipitation Measurement
OTT PWS –
Alter type wind shield
for precipitation gauges

OTT PWS

Precipitation Wind Shield for any type of collecting precipitation gauge

Wind impacts usually cause a systematic error in precipitation monitoring between –10 to –20% and in some cases even up to –100%. Moreover, a certain percentage of precipitation will not fall into the bucket orifice as the precipitation gauge itself has an impact on the wind flow. OTT PWS wind shields are designed to improve the catching efficiency of collecting precipitation gauges, e. g. of the OTT Pluvio and Pluvio² series.

The wind shields can be mounted on the same concrete platform as the precipitation gauge and are constructed to withstand high wind speeds and most severe environmental conditions. Designed and fabricated for long term reliability and longevity, they require no periodic maintenance. The possibility to easily open one of the segments allows convenient and safe access to the precipitation gauge. OTT PWS can be used for all types of precipitation gauges and will improve the catching efficiency significantly at standard measuring heights of 100, 120 and 150 cm.

Improved aerodynamics due to the wind shield assure that only minimum turbulences affect the precipitation to be measured. Mounting the wind shield on the vibrationless concrete platform detached from the mast of the precipitation gauge itself, provides additional protection from wind induced measurement errors.

Meteorology

OTT PWS – wind protection for better data

Features and benefits

- Wind shield Alter type with 24 lamellas
- Improved catching efficiency for precipitation measurements
- Insusceptible to high wind speeds
- Movable segment for opening – safe access to precipitation gauge
- Non corrosive stainless steel construction
- No periodic maintenance required
- Field assembly and mounting on site by only one person
- Small footprint for concrete platform (450 x 450 mm)
- Height adjustment and leveling on base frame
- Pedestal OTT POD 100 (optional) – allows for installation heights of 200, 220 or 250 cm; also suitable as extension unit for OTT Pluvio² pedestals



Movable segment for safe access to precipitation gauge

Applications

- Climatological and synoptic Automatic Weather Station (AWS)
- Daily check gauge for manual observation
- Automatic precipitation monitoring with tipping bucket or weighing precipitation gauges
- Automatic Surface Observation System (ASOS) on Airports
- Remote monitoring of rain and snow events
- Urban and industrial precipitation station



Versions and accessories

- Versions for 100/120/150 cm installation height
- Installation kit for concrete mounting of OTT PWS 100/120/150, consisting of 4 anchor rods and anchor cartridges
- Pedestal OTT POD 100 as extension unit for installation heights 200/220/250 cm
- Installation kit for concrete mounting of OTT POD 100, consisting of 4 anchor rods and anchor cartridges



OTT PWS 100

OTT PWS 120

OTT PWS 150

OTT POD 100
(accessory)

Technical data

Material

- Supports, lamellas: Stainless steel 1.4301
- Small parts (screws, nuts, ...): Stainless steel V2A
- OTT POD 100: Galvanized steel S235 JR (St 37-2)

Environmental conditions

- Wind speed: 0...35 m/s (0...78 mph)
- Temperature: -40 °C ... 60 °C (-40 °F ... 140 °F)
- Relative Humidity: 0...100%

Height

- OTT Alter PWS 100: 1000 mm
- OTT Alter PWS 120: 1200 mm
- OTT Alter PWS 150: 1500 mm
- OTT POD 100: 1000 mm

Diameter

- OTT Alter PWS 100: 1060 mm
- OTT Alter PWS 120: 1060 mm
- OTT Alter PWS 150: 1060 mm
- OTT POD 100 (Ø pipe): 4"

Weight

- OTT PWS 100: 15 kg
- OTT PWS 120: 16 kg
- OTT PWS 150: 17 kg
- OTT POD 100: 26 kg

Shipping dimensions OTT POD 100

- 375 mm x 375 mm x 1000 mm (L x W x H)

Footprint

for installation on concrete platform

Minimum dimension: 450 mm x 450 mm