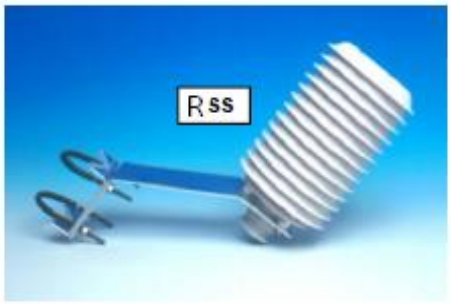
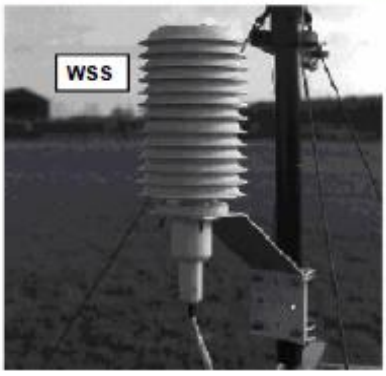


Features

- Maximum protection from solar radiation and precipitation
- To be assemblied on wall or on mast
- Minimum airflow restriction
- Naturally aspirated
- Simple mounting



The WSS Weather Sensor Shields are used in outdoor installations to protect relative humidity and temperature sensor from rain and sun radiation ensuring reliable measurement data.

Weather Sensor Shields WSS are supplied with Bracket and 2 Clamps.
Use bracket with 2 clamps for mast mounting.
Use bracket (without the 2 clamps) for wall mounting.

Ordering

Order Code	Overall height (mm)	Diameter (mm)	Plate spacing (mm)	Top plates	Lower plates	Probe min. (mm)	Probe max. dia. (mm)
WSS 1WB	220	120	11	3	10	18.0	25.4
WSS 3WB	160	120	11	3	5	18.0	25.4
WSS 4WB	295	120	11	3	15	18.0	25.4
WSS 5WB	140	120	11	3	5	3.0	6.5
WSS 6WB	220	120	11	3	10	3.0	6.5

SPL COL15 Split collet to be used for 15 mm probes .....
Split collets for other probe dimensions on request.

Description

These weather sensor shields are produced using modern injection moulding techniques with stabilised plastic.

Designed for the easy mounting of probes and sensors, they are fitted with a silicon seal to eliminate water-trap possibilities.

The designs are of a multi-plate construction;
the plate profiles are shaped to allow the minimum restriction of airflow while providing the necessary shielding from solar radiation and precipitation.

The sensor is mounted through the lower plates and secured by the gland clamp.

The top plates provide extra protection against temperature rise from direct solar.

The shields are supplied complete with mounting bracket and clamps and will fit to vertical or horizontal masts up to 2" in diameter.

At present five sizes of shield are offered.

The WSS are supplied with bracket and 2 clamps for mast mounting, remove the 2 clamps when wall mounting is required.

Temperature Errors Due To Radiation On Weather Sensor Shields

All weather sensor shields produce an error due to temperature rise during high solar radiation; the error is reduced with higher wind speeds which provide ventilation.

The figures given below are based on a radiation intensity of 1000 W/m 2 ; typical errors for the specified wind speeds would be:
0.4°C @ 3 m/s
0.65°C @ 2 m/s
1.4°C @ 1 m/s or slower.

These results have been verified independently in the field.

Due to the design of the shield plates, the sensor is not seen by reflected long wave radiation off the ground; other shields of more open design allow the sensor to be seen by the ground and can perform poorly under these conditions,
for example when there is snow cover on the ground.

Materials

UV stabilised thermoplastic	Shield plates
Glass filled nylon	Gland
Stainless steel	Studs, screws, mounting clamps, nuts and washers.
Anodised alloy	Mounting brackets and support
Silicon rubber	Seal

Split Collet

WSS 1WB, WSS 3WB and WSS 4WB
are for probe dimensions
min. 18.0 mm and max 25.4 mm.

WSS 5WB and WSS 6WB
are for probe dimensions
min. 3.0 mm and max 6.5 mm.

For other probe dimensions
a Split Collet is needed
SPL COL15 for probe dimension 15 mm is standard type.
Split Collets with other dimensions on request.

SPL COL15