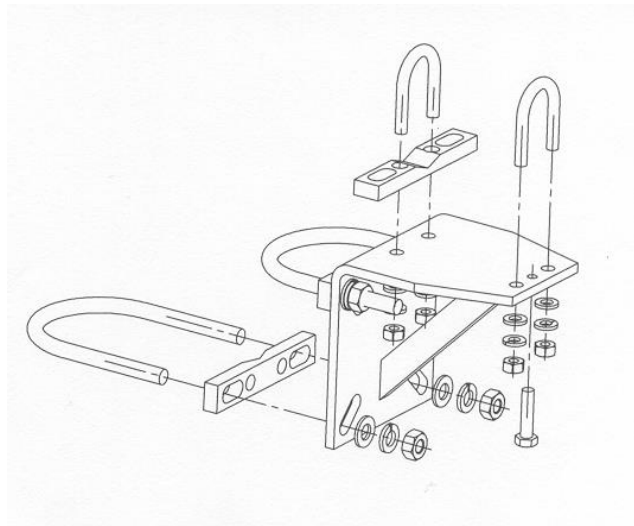


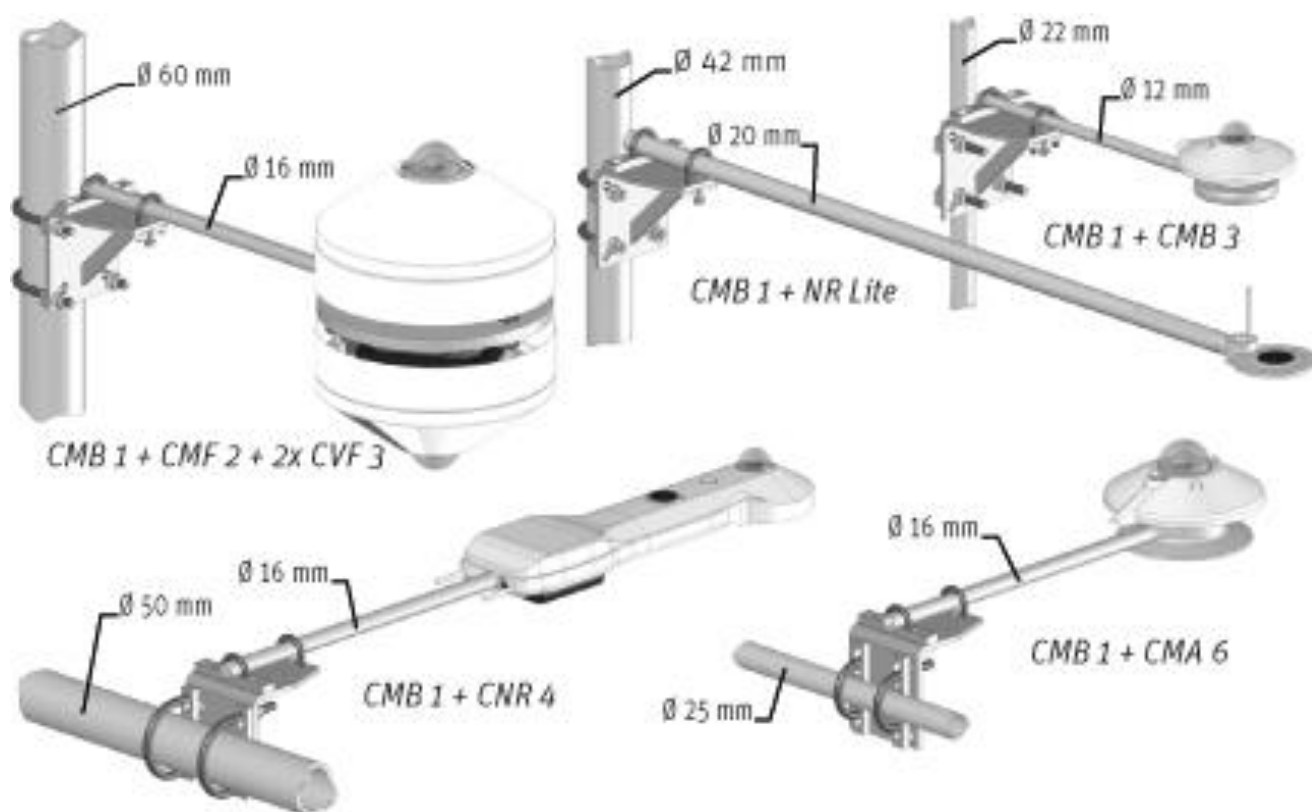
## MOUNTING BRACKET CMB 1



Several of our instruments, such as albedometers and net radiometers, are supplied with a mounting rod as standard, and others have a screw-in mounting rod or a mounting fixture available as an accessory.

We have a specially designed bracket available for easy attachment of a mounting rod to a pole or a wall. CMB 1 is a universal mounting bracket that can accommodate all our mounting rod sizes, from 12mm to 20mm diameter. The radiometer can be leveled by rotating and tilting the rod. The bracket includes U-bolts for fixing to poles and masts from 22mm to 60mm diameter. If the U-bolts are removed, the bracket can be fixed to a wall.

CMB 1 is made entirely of stainless steel for a long life and is very robust. It can support our heaviest instrument combinations in extreme conditions.



## MOUNTING ROD 0338720



The mounting rod is suited for SP Lite2 silicone pyranometer, PQS 1 PAR quantum sensor, CMP & SMP 3 pyranometers and CGR & SGR 3 pyrgeometers.

The rod is screwed into the instrument housing to enable the attachment of the above instruments to poles, masts or walls when used in combination with the CMB 1 mounting bracket.

The rod has a diameter of 12 mm and a length of 300 mm.

## MOUNTING FIXTURES CMF 1 & 4

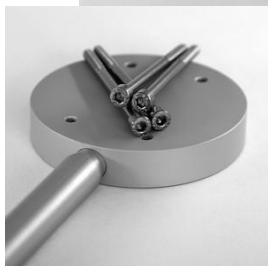


The **CMF 1** mounting fixture is a small round plate with integral rod for mounting one upwards and/or one downwards facing instrument without a ventilation unit.

The **CMF 1** is suited for all CMP and SMP series pyranometers, as for CGR & SGR 3 series pyrgeometers and UV radiometers.

The **CMF 1** has a 88 mm diameter plate with a non-removable mounting rod of 16 mm diameter and 350 mm long.

The **CMF1** can be attached to poles, masts or walls via the CMB 1 mounting bracket.



**CMF 1**



**CMF 4**

The **CMF 4** mounting fixture is a larger version that can be used for mounting instruments either unventilated or fitted with the CVF 3 or CVF 4 ventilation unit.

The **CMF 4** is suited for all CMP and SMP series pyranometers, as for CGR & SGR 3 series pyrgeometers and UV radiometers.

The **CMF 4** has a 280 mm diameter plate with a non-removable mounting rod of 20 mm diameter and 350 mm long.

The **CMF4** can be attached to poles, masts or walls via the CMB 1 mounting bracket.

## LEVELING FIXTURE CLF 4



The **CLF 4** leveling fixture is a high temperature design for use with CM 4 pyranometer only.

## ADJUSTABLE TILT CMP MOUNTING KIT



In solar energy applications it is often desirable to measure the 'tilted' global solar radiation at the angle of non-tracking (fixed) photovoltaic panels, in addition to the usual horizontal global radiation measurement. This can be achieved by mounting a pyranometer at the same angle as the fixed PV panel, so that it sees the same incoming solar radiation.

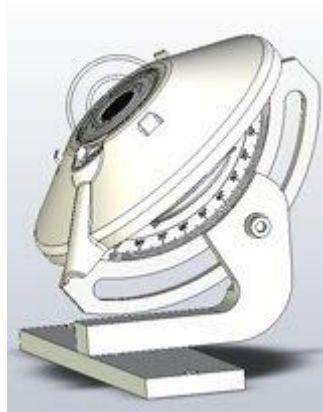
The Adjustable Tilt CMP Mounting Kit is designed to be installed on a horizontal surface and allows a radiometer instrument to be mounted at zenith angles from 0° to 90°. The mounting has a clear scale graduated in degrees and a secure locking device for easy adjustment.

The kit can also be fitted on the CMF 4 mounting fixture for simple attachment to walls and poles using the CMB 1 mounting bracket.

The Adjustable Tilt CMP Mounting Kit can be used with the shading ball assemblies of our 2AP and SOLYS 2 sun trackers to measure tilted diffuse radiation.

Please note that it is not possible to use a ventilation unit with the kit.

## MEASURE TILTED GLOBAL AND DIFFUSED RADIATION



**The position and angle of fixed photovoltaic panels makes a big difference to the power output and return on investment of a solar energy plant. The best way to determine this in prospecting and performance measurement is by measuring solar radiation with both horizontal AND tilted pyranometers.**

**Kipp & Zonen now offers an accessory to tilt a pyranometer to your preferred angle; the adjustable Tilt CMP Mounting Kit.**

A horizontally mounted pyranometer measures the global short-wave radiation from the sun and sky in a way that is easily comparable with other sites and with solar energy database information. However, for fixed angle (non-tracking) PV panels it is important to know the energy available within the 'view' of the panel. This 'tilted global radiation' is measured using a pyranometer inclined at the same angle as the panel.

The Adjustable Tilt CMP Mounting Kit can be fixed to a horizontal surface and has a clear scale in degrees, and a secure locking device, for easy adjustment of any CMP & SMP series pyranometer between 0° and 90° solar zenith angle. The kit can also be fitted to the CMF 4 mounting fixture for simple attachment to walls and poles using the CMB 1 mounting bracket.

The kit can be fitted to the SOLYS 2 and 2AP sun trackers (for the C(S)MP 3, 6, 10, 11, 21 and 22). The dome is at the correct height for use with the tracker shading ball assemblies to measure the 'tilted diffuse radiation' seen by a single-axis sun tracking PV panel. The existing Tilted CMP Pyranometer Mounting Kit fits to the side plate of a sun tracker and measures the tilted global radiation as seen by a two-axis sun tracking PV panel. Please note that these mounting kits cannot be used with the CVF 4 ventilation unit.