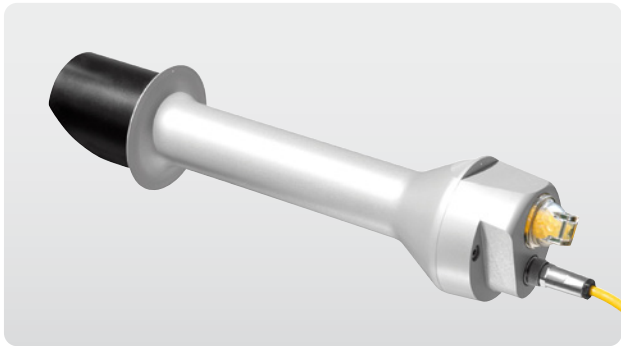


# CHP 1



**CHP 1** exceeds ISO and WMO performance criteria for First Class Normal Incidence Pyrheliometers. Every CHP 1 is calibrated upon manufacture, and is supplied as standard with a WRR (World Radiometric Reference) traceable calibration certificate.

Thanks to the superior mechanical design, CHP 1 offers excellent performance under any atmospheric condition. The zero offsets have been reduced to a minimum and the temperature dependence is limited to just  $\pm 0.5\%$  between  $-20\text{ }^{\circ}\text{C}$  and  $+50\text{ }^{\circ}\text{C}$ . The rain shield protects the window and there are integrated alignment aids.

Both Pt-100 and 10 k $\Omega$  thermistor temperature sensors are fitted as standard, to allow use of the individual temperature response data supplied with each CHP 1, and for easy connection to any type of data logger. Thanks to the signal cable connector and screw-in desiccant cartridge the instrument is easy to install and maintain.

Article	Part number
CHP 1 Pyrheliometer • 10 K + Pt-100 • 10 m cable	0368900-032
Options for CHP 1	
CHP 1 Pyrheliometer • 10 K + Pt-100 • 25 m cable	0368900-034
CHP 1 Pyrheliometer • 10 K + Pt-100 • 50 m cable	0368900-035
CHP 1 Pyrheliometer • 10 K + Pt-100 • plug only, no cable	0368900-038
CHP 1 Pyrheliometer • AMPBOX • 10 K + Pt-100 • 10 m cable	0368900-832
CHP 1 Pyrheliometer • AMPBOX • 10 K + Pt-100 • 25 m cable	0368900-834
CHP 1 Pyrheliometer • AMPBOX • 10 K + Pt-100 • 50 m cable	0368900-835
CHP 1 Pyrheliometer • AMPBOX • 10 K + Pt-100 • plug only	0368900-838
100 m cable	On request
Note: AMPBOX is adjusted so that 4 - 20 mA output = 0 - 1600 W/m <sup>2</sup>	

Specifications	
ISO CLASSIFICATION	First Class
Response time	< 5 s
Zero offset (b) temperature change (5 K/hr)	< 1 W/m <sup>2</sup>
Non-stability (change/year)	< 0.5 %
Non-linearity (0 to 100 W/m <sup>2</sup> )	< 0.2 %
Temperature dependence of sensitivity	< 0.5 % (-20 °C to +50 °C)
Full opening view angle	5 ° ± 0.2 °
Other specifications	
Sensitivity	7 to 14 $\mu\text{V}/\text{W}/\text{m}^2$
Impedance	10 to 100 $\Omega$
Operating temperature range	-40 °C to +80 °C
Spectral range (50 % points)	200 to 4000 nm
Maximum irradiance	4000 W/m <sup>2</sup>
Required tracking accuracy	< 0.5 ° from ideal
Temperature sensor	10 K Thermistor (optional Pt-100)

Accessories for CHP 1	Part number
Desiccant Refill Pack, minimum order 10 packs	2643951
Extended Temperature Test for CHP 1 Temperature dependence from -40 °C to +50 °C in 10 steps of 10 °C	0999920-3
Calcium Fluoride Window Kit Tube end-cap with Calcium Fluoride (CaF <sub>2</sub> ) window to replace standard end-cap with Quartz window. Spectral range 0.2 - 9.5 $\mu\text{m}$ (50 % points)	0368700
Note: Calcium Fluoride is soft and slightly hygroscopic and is not suitable for continuous outdoor use	
Note: The CHP 1 must be mounted on an automatic sun tracker such as the Kipp & Zonen SOLYS 2 or 2AP	