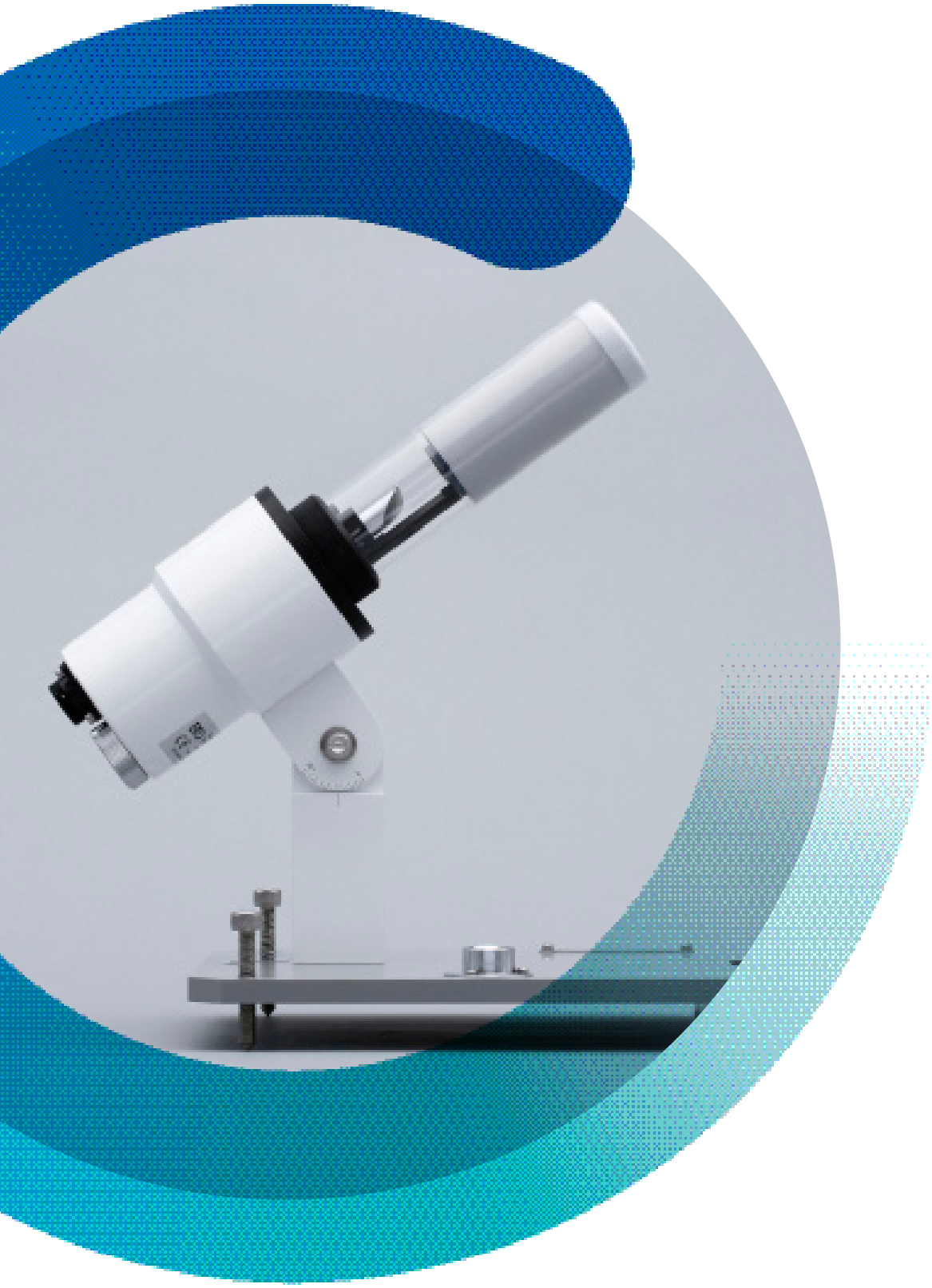
DNI Sensor
MS-90

Direct Normal Irradiance measured from a different angle.



Beyond Accuracy.

MS-90

DNI Sensor
Reinventing Solar Measurement

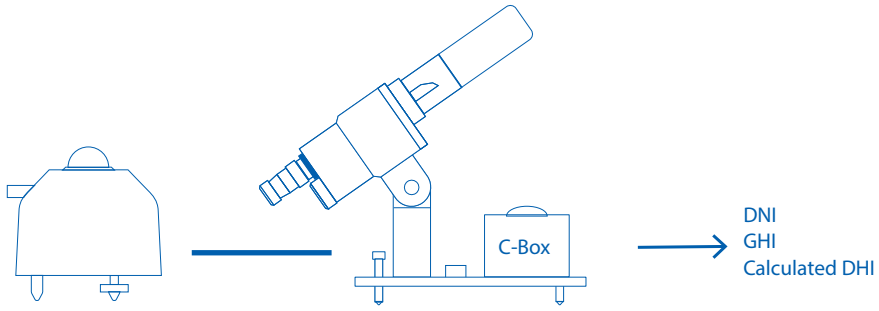
The MS-90 sensor measures the Direct Normal Irradiance (DNI) without the requirement of a sun tracker. The MS-90 DNI sensor is a cost-effective solution to be applied in solar energy monitoring systems and meteorological networks.

MS-90 features a rotating mirror, which only reflects the sunbeam onto a thermal detector. MS-90 can work with high sampling dataloggers or EKO Smart interface solution called "C-box". The Smart interface has a peak hold function, GPS receiver and auxiliary input to be used in combination with any pyranometer to measure the DNI and Global Horizontal Irradiance (GHI). The GPS receiver provides time and location information to calculate the solar position. Hence the Diffuse Horizontal Irradiance (DHI) can be calculated.

Features:
— Measure DNI without a sun-tracker
— Spectral range 300 - 2500nm
— Low power consumption
— Maintenance free operation
— Configure to measure DNI / GHI / DHI
— Digital output (Modbus 485 RTU)

Specifications

	MS-90	MS-90 + C-Box
DNI Output	0 to 2 V (Pulse)	0-1 V / Modbus 485 RTU
GHI output (with GHI pyranometer)	X	Modbus 485 RTU
DHI output (with GHI pyranometer)	X	Modbus 485 RTU
DNI Measrement uncertainty	+/- 5 % (0-70º zenith angle) +/-10% (>70º zenith angle)	
Sampling interval (DNI)	15s	15s / 1s (GHI)
Operating temperature range	-20 to 50°C	
Wavelength range	300 - 2500 nm	
Geographic application	Lattitude (-58º to 58º)	
Power supply	12 VDC / 6W	
Dimension mm / weight	350 (W) x 250 (L) x 200 (H) / 2.7 kg	



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