

Sunshine Duration Meter

EKO Sunshine Duration Meter MS-093 has a specially designed and rotating mirror, which reflects the direct solar radiation onto an especially flat spectral response pyroelectric sensor and measures the sunshine duration by pulse signals.

MS-093 precisely measures the direct solar irradiance that exceeds the threshold of 120W/m^2 , which is defined in the sunshine duration measurement method by WMO (World Meteorological Organization), making it possible to measure highly accurate sunshine duration.

EKO Sunshine Duration Meter MS-093 is a one-of-a-kind high performance instrument, which is used worldwide in many applications such as ASOS (Automated Surface Observing System) by NOAA (National Oceanic and Atmospheric Administration).



Specifications

Wavelength Range	300 to 2,500nm
Mirror Rotation Speed	100 revolutions/hour (Optional: 120 revolutions/hour)
Sunshine Duration Threshold	Direct Solar Irradiance 120W/m^2
Sunshine Duration Measurement Error	Within $\pm 10\%$ against the Sunshine Duration Threshold
Power Voltage	DC 10.5 to 12.5V
Consumption Current	380mA to 450mA (-30 to 40°C)
Operation Temperature Range	-20 to 40°C
Sunshine Duration Outputs	Output: Non-voltage contact output
Pulse Width:	$1 \pm 0.05\text{sec.}$
Voltage Resistance:	60V
Sunshine:	Make contact for one second every 36 seconds 1 pulse/36 sec., 100 pulse/hour
No Sunshine:	Contact remains in break condition
Weight	2.1kg
Materials	Body: A6063BD Glass Tube: Borosilicate Glass (Hard Glass) Sensor Cover: SUS
Option	Reset Box, Power Supply Box, Blower Fan Unit, Base Plate

