

# 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  $120\text{w/m}^2$ , 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 $120\text{W/m}^2$
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 $40^\circ\text{C}$ )
Operation Temperature Range	$-20$ to $40^\circ\text{C}$
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

