PRODUCT DATASHEET
Supplier-provided technical data

Sunshine Duration Sensor



Supplier: NiuBoL
Manufacturer model: NBL-W-SDS
Archive SKU: NBL-W-SDS
Price, availability, delivery and warranty: confirmed by quotation.

Sunshine Duration Sensor supplied by NiuBoL. Select the required configuration and request a quotation for price and availability.

Select the required configuration for your intended monitoring task. Supplier-stated ranges and performance figures are reproduced below. Source differences require confirmation of the supplied version; no retail price, stock, warranty duration or delivery commitment is inferred.

Configuration and measurement limitations

• The cosine-response condition is described as 10° solar altitude in the catalogue and 10° solar zenith angle in the quotation. These are different geometries; confirm the intended angular condition.

Source documents

2026 Product Quotations from NiuBoL-Michelle.pdf — PDF page(s) 9.

Weather Stations and Agriculture Sensors Catalog-NiuBoL.pdf — PDF page(s) 19.

Supplier technical description

Technical specifications and configuration — supplier wording

Statistic the sunshine presence per minute,
reset at midnight every day.
Resolution: 0.1h
Spectral Range: 0.3 to 3 μm
Response Time: < 5s
Temperature Dependence: < ±0.08%/°C
Cosine Response: < ±10% (at a solar zenith
angle of 10°)
Non-linearity: < ±2%
Annual Variation Rate: < ±2%
Measurement Range: 0 to 24h
Power Supply: DC 12-24V
Output Type: 4-20mA / 0-2.5V / 0-5V / RS485
Instrument Cable Length: 2.5 meters

Catalogue page 19 — technical data

Parameter	Supplier-stated value / source wording
Measuring range	0~24h
Working environment	Temperature -50°C~80°C Humidity ≤100%RH
Power supply	DC 12-24V
Output format	□4~20mA □0~2.5V □0~5V □RS485
Product power consumption	0.15W
Spectral range	0.3~3μm
Response time	<5s
Temperature dependent	<±0.08%°C
Temperature characteristic	2%(-10°C~+40°C)
Cosine Response	<±10% (when the sun altitude angle is 10°)
Nonlinear	<±2%
Annual rate of change	<±2%
Product weight	Sensor 420g with transmitter 760g
Line length	2.5m

Catalogue page 19 — selection / wiring table

Parameter	Supplier-stated value / source wording
Model	P | ower supply | output met | hod | Description
NBL-W-SDS	Sunshine Duration Sensor
12V-24V	12-24V power supply
NBL-W-SDS — V	0-5V
NBL-W-SDS — V2	0-2.5V
NBL-W-SDS — A1	4-20mA
NBL-W-SDS — W2	Rs485
Supplier statement	Example: 12V-24V-A1: Sunshine Duration Sensor 12V-24V power supply, 4-20mA current signal output