

BLAKE-LARSEN SUNSHINE RECORDER

SEE THE LIGHT, COUNT THE HOURS

Seeing a light beam through the clouds means sunshine! The human eye is the best instrument to determine whether it's sunny. Not very practical though. However, the new Blake-Larsen Sun Recorder can determine sunshine duration using a unique way to discriminate between direct and indirect sunlight all over the world. Now you can start to see the light and count the hours.



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The Blake-Larsen Sunshine Recorder is a smart sensor to measure sunshine duration. Back in 1885 McLeod invented the measuring principle which was recently rediscovered by Blake and Larsen. In close cooperation with them, Wittich&Visser has taken the measurement principle into a unique and accurate product to comply with the current WMO performance specifications. The sensor is easy to install, can be applied globally and used for many applications.

Measurement principle

The Blake-Larsen Sun Recorder is unique! Sunshine is determined by mimicking the way a human would determine whether the sun shines. Light, reflected by the dome, passes through a special filter unto the LUX-sensor. A scientifically deduced algorithm then determines whether the sun is shining or not. Research and thorough testing ensured our method confines with the WMO standard. We consider this method an improvement since the human perception of sunlight differs from measuring direct irradiance as specified by the WMO.

Application

We all like to know where to expect sunny weather and for that sunshine duration is the main parameter. Besides being interesting for sunbathers, sunshine duration is an important parameter to the agricultural and solar energy sector. The Blake-Larsen Sun Recorder can be applied all over the world by professionals and amateurs, from holiday resorts to prospective locations for solar energy.

Technical specifications

Operating longitude	-90° to +90°
Analogue output signals (yes/no)	5V/1V, 20mA/4mA and open drain switch
Resolution	1s
Sunshine duration uncertainty	± 0.3 hours
Accuracy of sunshine hours	>90% per weekly sums
Weight	800g
Size (total/housing only)	160x100x83 / Ø83x74 mm
Power supply	12-30 VDC



Use and installation

After putting the device to the right direction and under the right angle, the GPS automatically determines the location and the Sun Recorder starts recording. Occasionally, the recorder needs a check-up for exterior cleaning and that's it!

Future outlook

The Blake-Larsen Sun Recorder is constantly under development and we're not at a standstill. Soon it will be possible to let the recorder share the measured data online as shown in the pictures below. Additionally we're developing a self-calibration algorithm, meaning the recorder will improve its performance based on the current location resulting in better results.

SR around the world

Sunrecorders around the World:

