Guidelines for the transition from SR15-A1 to SR100-A1 analog pyranometers

SR100-A1 offers the same measurement accuracy and reliability as older models, but in an updated form factor. To make the transition from the older analog SR15-A1 pyranometer as easy as possible, Hukx offers this overview of changes and improvements.

Introduction

Hukx SR100-A1 analog pyranometers offer the same measurement accuracy as their predecessors, but benefit from the updated housing. This document provides guidelines and considerations for customers transitioning from older analog models to these new models.

The transition from SR15-A1 to SR100-A1 will be easy, with very few, if any, changes required in most cases.

Notable changes

This document focuses on customers who are currently using the SR15-A1 (ISO 9060 Class B) pyranometer and wish to replace it with the SR100-A1. Each consideration contains specific instructions, remarks, or points of attention. Please refer to the respective user documentation for a complete overview of all installation advice and instructions for use.

Figure 1 The transition from SR15-A1 to SR100-A1 or from SR20 to SR200-A1 is an easy step with the help of our guidelines.

Table 1 ISO 9060 specifications.

item	direction
response time (95 %)	SR15-A1 specification < 10 s SR100-A1 specification 3 s
zero offset b	SR15-A1 specification < 4 W/m^2 SR100-A1 specification < 2 W/m^2

Table 2 Cabling and connector.

item	direction
Pt100 internal temperature sensor available	Consider rewiring the existing cable to read the pyranometer body temperature.

Table 3 Mounting and mechanical.

item	direction
increase in total height total height SR15-A1: 84 mm SR100-A1: 88 mm	This may affect the measurement accuracy in some setups and may cause the instrument to mechanically interfere with accessories. Consider the impact on the application, special attention should be paid to the following situations: – installation on a shadow ring – installation on a solar tracker – installation in an external ventilation unit

Table 4 Earthing and isolation.

item	direction
earthing the instrument housing	SR100-A1 features an earthing terminal to connect the housing to an earth ground to improve signal integrity and safety. It is strongly recommended to use it. Refer to the SR100-A1 product user documentation for instructions.

Table 5 Heating and ventilation.

item	direction
internal heater SR100-A1 does not have an internal heater	When heating is required, the recommended action is to replace the unit with the SR300-D1 digital Class A pyranometer.

Table 6 Accessories.

item	direction
incompatible sun screen	None, a fitting sun screen will be delivered with a new pyranometer.

About Hukx

Hukx is the leading innovator in solar radiation and heat flux sensor technology. We are proud to set the standard in high-accuracy measurement, and to be working at the heart of the energy transition.

Customers worldwide rely on our bestselling pyranometers and heat flux sensors. From sensor design and selection to supply and recalibration, we support you across the entire lifecycle.

Hukx is headquartered in the Netherlands, with locally owned representative sales offices in the USA, Brazil, India, China, Southeast Asia, and Japan.

Let us help you select the best sensor for your application.
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Version 2602
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