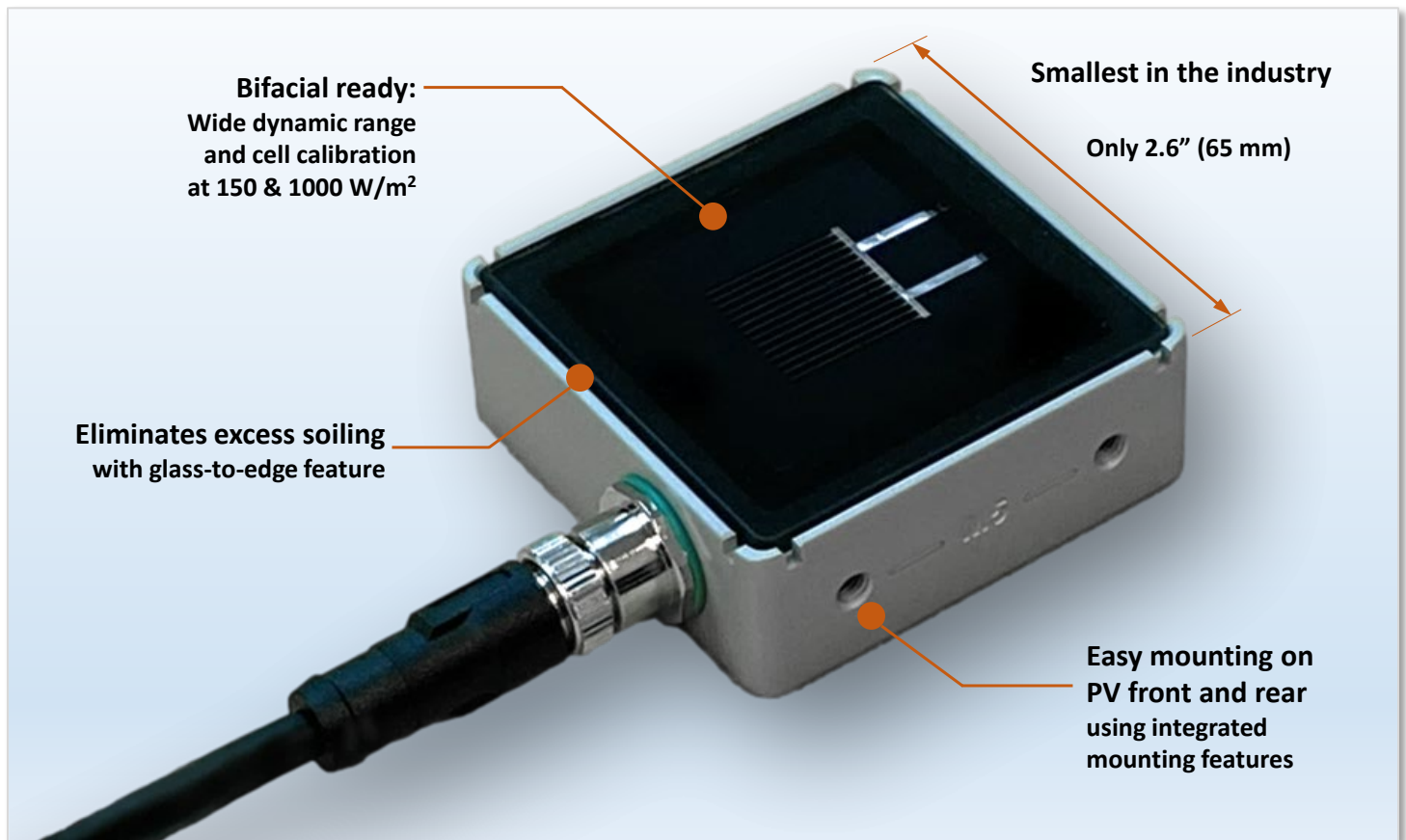


RC22 PV Reference Cell

Digital Irradiance Sensor Optimized for Bifacial PV Arrays



Optimized for Bifacial PV Arrays

- Size, mounting, electronics, & calibration specifically optimized for both monofacial and bifacial PV

Compact Size, Mounts Anywhere

- Compact size – only 65 mm
- Multiple integrated mounting features
- Mounts conveniently on bifacial rear side

Glass to Edge, No Excess Soiling

- Unique glass to edge feature allows water roll-off, eliminating excess soiling vs. conventional cells

Robust Mechanical Construction

- IP67 anodized aluminum enclosure

Accurate at Low and High Irradiance

- Accurate measurements on PV front or rear
- Calibrated at both 150 W²/m and 1000 W²/m
- Wide dynamic range measurement electronics

Digital Smart Sensor

- Digital communication via Modbus over RS485
- Internally calibrated measurements: no need to manage calibration constants in loggers or SCADA

Connectorized for Easy Installation

- Industry-standard M12 5-pin circular connector
- Easy changeout for recalibration
- Compatible cables with secure over-molded connectors available in multiple lengths

Specifications

Main Data	Model name	RC22 Series
	Measurement range	0 to 1500 W/m ²
	Resolution	0.1 W/m ²
	Operating temperature	-40 to 80 °C
	Input power	10-30 VDC
	Current consumption	Typ. 10 mA
	PV cell	Crystalline Si, 20 mm x 20 mm
	Window	Low-iron solar glass
	Cell temperature measurement	Pt1000 RTD
	Calibration data	Internally calibrated; no calibration data to manage
	Setup	Optional configuration kit allows PC-based setup
	Protocol	Modbus over RS485 (RTU), user-settable address
	Baud rate	9600, 19200, 38400, 57600
Enclosure	Material	Anodized aluminum housing
	Ingress protection	IP67
Dimensions	Dimensions	2.56 x 2.56 x 0.96 in / 65 x 65 x 24.4 mm
	Weight	0.375 lbs / 170 g
	Mounting	Side and bottom mounting holes
Cable		Multi-option mounting brackets
	Type	Shielded, weather resistant, UV-rated, 24 awg / 0.2 mm ²
	Length options	4 m, 10 m, 25 m, 50 m, 100 m (order separately)
		Optional Y-cable for multi-sensor networks
	Connector	M12 circular connector, IP67
Measurement	Pinout	Power, Ground, RS485 A & B, Shield
	Irradiance calibration	± 1.2% @ 1000 W/m ²
	Measurement uncertainty	± 2.0% @ 1000 W/m ²
	Cell temperature	± 1 °C
	Stability	0.5% / year
Standards		IEC 61724-1 Class A, IEC 60904-2
		CE

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