



IV DAQ + Gateway

Si-PV Panel Performance Monitor

Groundbreaking panel-level monitoring

Morgan Solar's IV DAQ system unlocks valuable, actionable insights of your solar assets. Get a pure pulse on your project's health without the noise and uncertainty of inverter readings or the need for costly handheld IV sweeps or drone imaging. Know in real time how your panels are performing against warranty; pinpoint your gains and losses to enable targeted O&M. Using Morgan Solar's Analytics Portal, correlate performance to generate higher accuracy forecasts.



Deep Insights

Panel IV curve, temperature, current, voltage and string current, in real time and changes over time.



No Downtime

Measurements taken during operation, with no revenue lost from costly string, combiner box or inverter down time.



In-Situ

Leave-in-place means data whenever you need it and no more reliance on hand-held measurements or drones



Plug & Play

Simple set up requires no calibration, and no in-field wiring for power or communication.



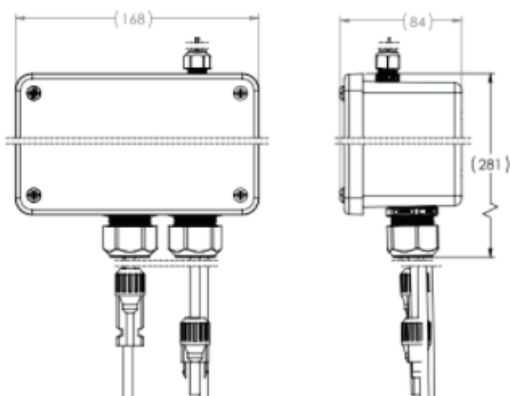
High Frequency Data

Conduct your panel IV sweeps to align with other sensors or as often as once per minute.



Compatible

Measure, Correlate and Predict using our Analytics Portal to integrate your other meteorological sensors.



To find out more or schedule a demo, contact us at: **1-416-203-1655**



morgansolar.com

IV DAQ Specifications

Module Voltage Range	15 V - 50 V	Dimensions	81 mm x 168 mm x 251 mm
Module/String Current Range	0 A - 12 A	Weight	1.65 kg
Power Input Range	15-450 W	Operating Environment	- 20°C to + 50°C
Accuracy - Current	± 1%	Voltage Isolation	1500 V
Accuracy - Voltage	± 0.5%	Enclosure Rating	IP 67
IV Sweep Direction	Isc → Voc	Connection to Module	2 x MC4 on lead
Sweep Time	< 200 ms	Connection to String	2 x MC4 on lead
Sweep Interval (Standard)	15 min	Power Consumption	~1 W
Sweep Interval (Max)	1 min	Power Source	PV module under test
Built in Sensors	K Type Thermocouple	Insertion Resistance	~30 mΩ

Gateway Specifications

Architecture	Embedded Linux Computer		
Wireless Protocol to Tracers	802.15.4 Mesh	Power Source	100-240 VAC
Integration Input/Output	RS-485 / MODBUS	Dimensions	254 mm x 203 mm x 102 mm
Maximum Range	100 m	Weight	2.7 kg

Communication Protocols

Communications	XBee PRO900-HP Mesh network, 902-928 MHZ. Transmit power: up to 24 dB
----------------	---

Certifications (IV DAQ & Gateway)

Certified by CSA Group to CAN/CSA C22.2 No. 61010-1-12, UL 61010-1:2012, CSA C22.2 No. 61010-2-030, UL 61010-2-030:2018
Compliant with FCC Part 15.247, RSS-247, ICES-001, ANSI C63.10: 2013.

