EKO Q
Trust your data.

FAQs

1. What is EKO Q?

EKO Q stands for **“EKO Quality”**. EKO Q is a sensor data verification service designed to ensure the data is of high quality. EKO Q is designed to answer the question **“Can I trust my solar data?”** Quality solar irradiance measurement data is **accurate** and **reliable**. You can take it to the bank, it is **bankable**.

2. How does EKO Q work?

EKO Q analyses the irradiance data along with additional information about the system. Using advanced algorithms it compares the data to alternative data available from **physical models, satellite based irradiance data and other measurements to assess and benchmark the performance of on-site sensors, detect problems in measurements** and estimate the impact of data quality issues on key performance indicators.

3. Why is EKO Instruments offering this software service?

Quality data is crucial for solar project success, from pre-construction to ongoing operations. EKO Q bridges the gap between measurements with quality sensors and actionable insights, ensuring data reliability for:

- Pre-construction yield assessments
- Performance monitoring and benchmarking
- Ongoing O&M
- Investor reporting

With the growing need for bankable data and faster diagnostics, EKO is the first sensor manufacturer to combine world-class sensors with an intelligent data solution, supporting every stage of the PV lifecycle and setting a new standard for data reliability in the industry.

4. When to use EKO Q

- **Solar resource assessment campaigns:** EKO Q will secure quality of the ground measurement data for yield projection and risk assessment based on satellite data.
- **Installation of pyranometers:** To verify that the installation has been correctly carried out during the initial stages of the project, securing high-quality data — a crucial factor for all further data analysis.
- **Regular O&M:** To ensure that data collected with pyranometers remains consistent and accurate over time, and to detect issues that are typically missed by standard monitoring software.
- **Monthly and annual performance assessment of PV parks:** To evaluate

whether PV parks are meeting performance ratio (PR) targets and to build confidence in the data used to calculate PR performance KPIs.

- **Due Diligence:** To assess overall performance, identify risks, and determine a fair market value for PV assets during the sale or purchase.

5. Who in the PV industry can benefit from EKO Q?

EKO Q is built for anyone who relies on accurate solar data:

- **Project developers:** To check if ground measurement data is accurate before using the data for performance evaluation and risk assessment, from solar resource assessment to due diligence.
- **EPC & system integrators:** To find and fix issues or confirm everything is installed and maintained correctly until PV projects commissioning or handover.
- **O&M teams:** To check if sensors are working properly, spot drift in sensor parameters, damage, or misalignment early to improve the quality of their service and avoid penalties.

Technical advisors: To make sure the data they are using is reliable for yield projections, due diligence, and financial decisions.

6. What problems does EKO Q solve for PV projects?

EKO Q helps answer critical questions like:

- **Can I trust my solar data?**
- Is my irradiance data reliable for performance evaluation and risks assessment of my PV park?
- Is my sensor installed and configured well?
- Which pyranometer data can represent my PV park?
- Are there undetected faults in long-term data sets?

By identifying inconsistencies early, EKO Q **reduces project risks** and boosts confidence in data-driven decisions.

7. What kind of issues does EKO Q check for?

EKO Q runs a full suite of automated diagnostics, including:

- **Data integrity checks** (gaps, frozen values, unrealistic irradiance levels)
- **Time alignment** (wrong time zone, time shifts)
- Error in **sensor orientation**
- Impact of **shading** from surrounding terrain or obstructions
- **Bias and non-linearity** in measurements
- **Long-term drift** in sensor sensitivity

8. What do you get with the EKO Q service?

You receive a detailed PDF report that includes:

- Executive summary with key results and recommendations
- In-depth technical findings for engineers or QA teams
- Data visualization with tailored plots and diagrams

- Pass/fail results for each test
- Recommended actions, if any issues are found

The report summarizes everything you need to understand the quality of your solar measurements — at a glance.

9. Is EKO Q only for EKO sensors?

EKO Q is optimized for EKO sensors (like the **MS-80 series**), but it can be adopted to work with **any irradiance sensor** that follows **ISO 9060 standard**. You can check the compatibility during the onboarding session with our experts.

10. What makes EKO Q different from other analysis tools?

- **Fully automated analysis**
- Based on **decades of sensor expertise**
- Uses **trusted correlative data**
- **Purpose-built for solar sensors** beyond generic data QC tools
- Relies on deep sensor and measurements knowledge and advanced physical models - beyond statistics

11. What kind of data does EKO Q collect and analyze?

EKO Q analyses measurement data from your solar sensors, along with metadata such as site location and timestamps. No personal or confidential business data is required.

12. Is my data secure with EKO Q?

Yes — your data is fully protected. EKO Q follows strict data security protocols and adheres to international standards, including GDPR and other applicable data protection regulations. All data is securely stored on certified cloud servers. Access is strictly limited to authorised EKO personnel involved in your project, and we never share or sell your data. EKO is committed to safeguarding your information at every stage of the service.

13. Can EKO Q detect physical damage to a sensor (e.g., breakage, corrosion)?

No — EKO Q does not replace a physical inspection. It uses data trends to highlight performance anomalies, but it does not visually detect physical damage like a technician on-site could. It complements but not replaces routine maintenance and inspection procedures.

14. Does EKO Q perform real-time monitoring or alerting?

No — EKO Q is a post-processing analysis tool. It analyses historical sensor data to assess its quality and consistency.

15. Can EKO Q fix the problems it identifies?

No — EKO Q provides diagnostics and insights and suggests corrective actions. It flags issues like data gaps, shading, or time misalignment — while actual resolution (e.g. cleaning, recalibration, adjustments, firmware updates) must be handled by your technical or O&M team.

16. Does EKO Q simulate or forecast PV energy yield or production?

No — EKO Q does not provide simulation or yield modelling. It analyses the quality of measured irradiance data—a critical input to yield models—but does not provide energy generation forecasts or PV system simulations.

17. Does EKO Q automatically collect data from my pyranometer or monitoring system?

No — EKO Q does not connect directly to your sensor or SCADA system. You have to manually upload your solar irradiance data — typically in CSV or compatible formats. This data can typically be exported from your:

- Data logger
- Monitoring platform
- SCADA system
- Site control equipment

Along with the data, you provide key metadata such as:

- Sensor type and model
- Installation tilt and azimuth
- Site coordinates and time zone
- This ensures the analysis is accurate and meaningful.

18. Why isn't the data collection automated?

EKO Q is designed as a diagnostic tool that works independently of your on-site systems when you wish. This ensures:

- Full data privacy and security
- Compatibility with diverse data loggers or platforms
- Flexibility for one-off or periodic checks as you need

Discuss your specific needs and available options for data connectivity integration with EKO experts.

19. Where is the EKO Q service available?

EKO Q is a globally accessible service provided by EKO Instruments. It can be used by solar project stakeholders anywhere in the world, as long as irradiance data and required metadata can be uploaded.

20. How can I get in-depth answers about EKO Q for my application?

Schedule your meeting with EKO experts on EKO Q product page or contact EKO office.