Kwizda Xperience

FAQ

KX Rain EN

Inhalt

What is KX-Rain?

KX-Rain is a web application that provides historical rain data for any location you choose. You can see rainfall data from the past year, including daily rain totals and accumulated rain over the course of a year. The application also provides a current rain widget showing the ongoing rainfall in your selected area.

Who uses KX-Rain?

KX-Rain is used by farmers, crop advisors, and other agricultural professionals who need reliable Weather, specifically rain, for better decision-making.

Where does the data in KX Rain come from?

The basis of data in KX Rain comes from the company GeoSphere.

KX-Rain sources its data from two primary providers: **GeoSphere Austria** for rainfall data specific to Austria and **Open-Meteo** for broader coverage across Europe like Romania and Hungary. These sources ensure accurate and reliable precipitation data, helping users access detailed historical weather insights.

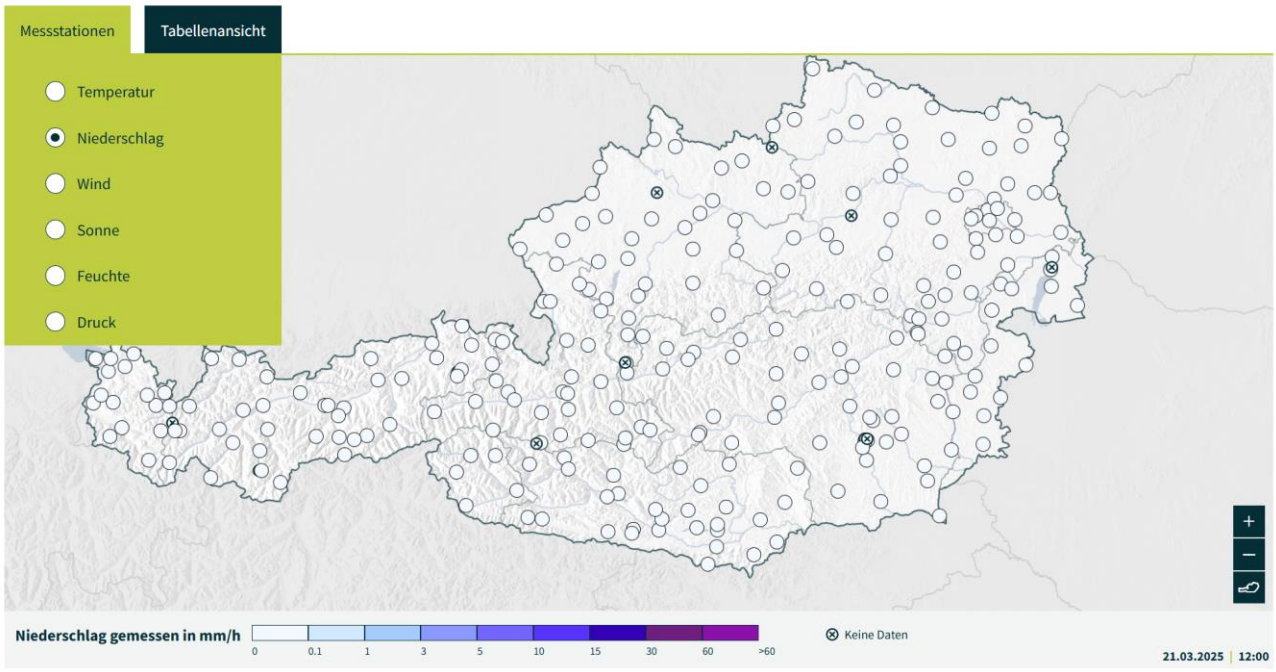
GeoSphere Austria is the central provider of meteorological and seismological data in Austria. A dense measurement network provides data essential for weather forecasts, climate research, and earthquake monitoring.
GeoSphere Austria's measurement networks provide precise measurement data for weather, climate and earthquakes. **www.geosphere.at**

Open-Meteo is a high-performance weather API that provides free access to global meteorological data. Its fast and lightweight service delivers historical, current, and forecast weather information, supporting applications in climate research, environmental monitoring, and weather-dependent industries. **https://open-meteo.com/**

What is the meteorological network and how big is it?

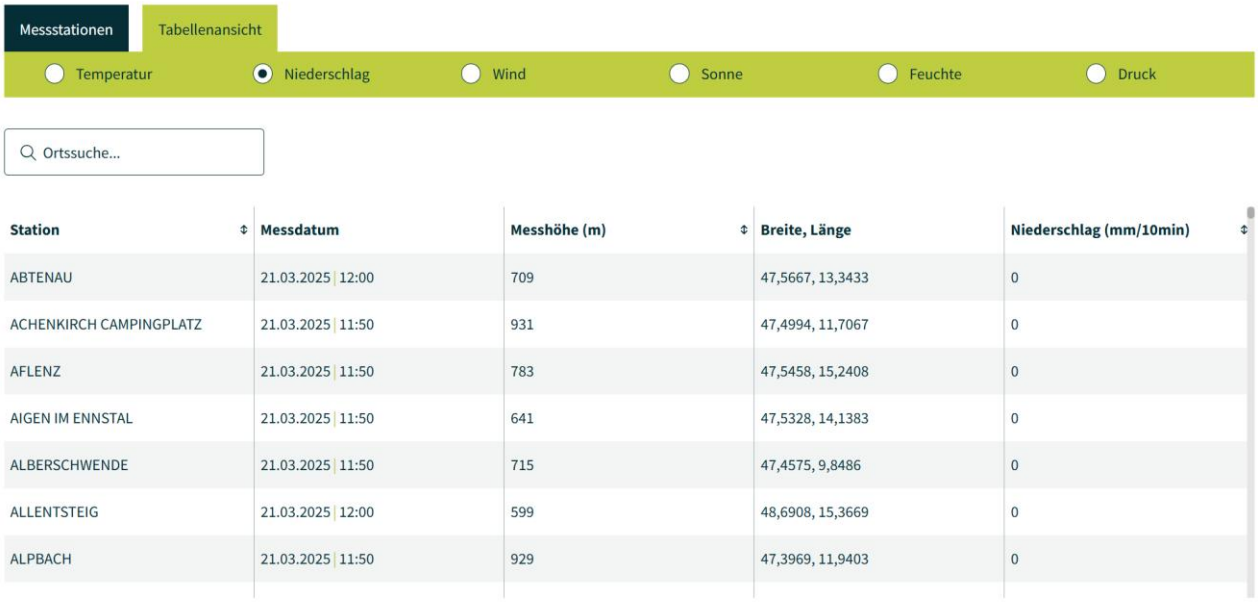
GeoSphere Austria's meteorological measurement network meets the international quality standards of the World Meteorological Organization (WMO) and forms the backbone of weather forecasts, climate products, and climate research. With approximately **280 weather stations** covering all climatic regions and altitudes in Austria, it ensures the availability of accurate weather data in real time. The majority of the stations are semi-automatic weather stations (TAWES), which record basic weather elements such as temperature, humidity, precipitation, and wind speed.

Measurement stations in austria (map view) www.geosphere.at



www.geosphere.at

Measurement stations in austria (table view)



Station	Messdatum	Messhöhe (m)	Breite, Länge	Niederschlag (mm/10min)
ABTENAU	21.03.2025 | 12:00	709	47,5667, 13,3433	0
ACHENKIRCH CAMPINGPLATZ	21.03.2025 | 11:50	931	47,4994, 11,7067	0
AFLENZ	21.03.2025 | 11:50	783	47,5458, 15,2408	0
AIGEN IM ENNSTAL	21.03.2025 | 11:50	641	47,5328, 14,1383	0
ALBERSCHWENDE	21.03.2025 | 11:50	715	47,4575, 9,8486	0
ALLENTSTEIG	21.03.2025 | 12:00	599	48,6908, 15,3669	0
ALPBACH	21.03.2025 | 11:50	929	47,3969, 11,9403	0

www.geosphere.at

Open-Meteo itself does not operate a physical meteorological network. Instead, it aggregates and processes data from multiple authoritative sources, including national weather services, satellite observations, and numerical weather models. Some of its primary data sources include:

- **ECMWF (European Centre for Medium-Range Weather Forecasts)**
- **NOAA (National Oceanic and Atmospheric Administration, USA)**
- **DWD (Deutscher Wetterdienst, Germany)**
- **Météo-France (France)**
- **UK Met Office (United Kingdom)**

Because Open-Meteo relies on these extensive global and regional datasets, it effectively provides coverage for nearly every location worldwide. The size of its "network" depends on the underlying models and observation stations maintained by these official meteorological organizations.

https://open-meteo.com/

How often are the measured values transmitted from the stations?

These measurements are transmitted every five to ten minutes to the headquarters in Vienna, where they are checked for completeness and plausibility. The verified data is then incorporated into databases and made available for weather forecasts, climate studies, and economic applications.

Open-Meteo itself doesn't operate weather stations, it aggregates data from various official meteorological sources and provides it through a unified API. The frequency of measured value updates depends on the original source. Precipitation values and current weather uses near real-time data (usually updated every 15 minutes to 1 hour depending on the source).

What does the precipitation value shown as the daily total represent?

In KX Rain, enter an address in the search field and a blue window will appear on the map. This blue window represents the area from which the precipitation data is calculated. This means that the rainfall value shown is for a broader area, not a single point. You can test this by moving the location on the map slightly. The blue window will change to indicate a different area, and the daily rainfall totals will also change. These totals are derived from the data within the blue area.
By contrast, a physical weather station provides data for a specific location, showing the exact rainfall measured there. Therefore, values from a physical weather station and those from KX Rain may not match exactly. However, they usually align within a margin of ±5 mm. While the weather station offers point-specific data, KX Rain provides an area-based calculation from multiple data sources.

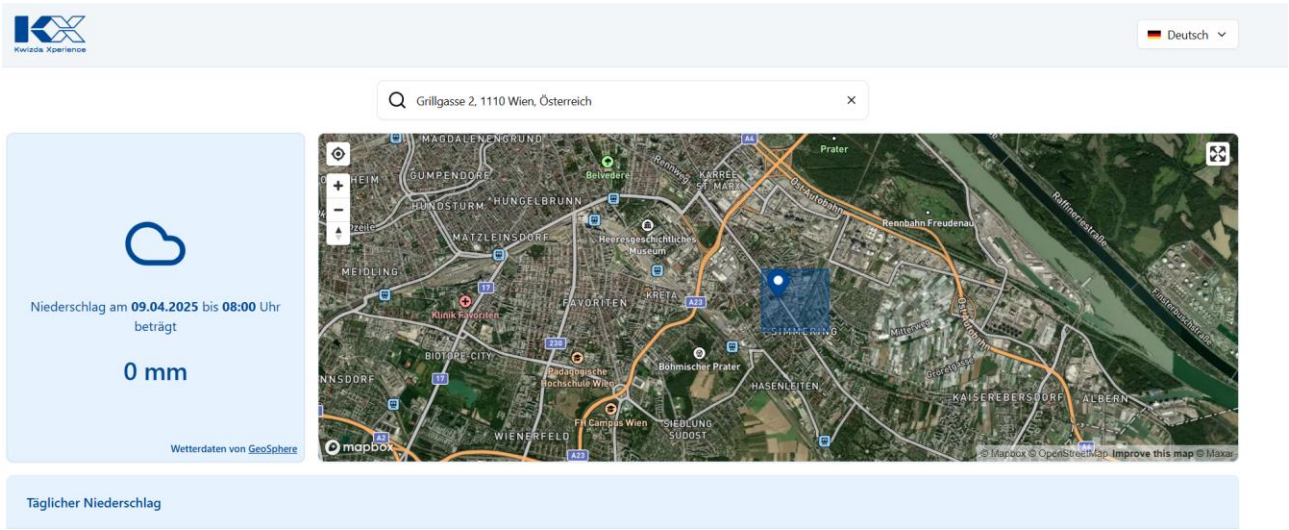
How do I set my location?

You can set your location in two ways:

- **Search Bar**: Simply type your location in the search bar to find and select it.
- **Map**: Click on the map to select your desired location.

Additionally, if you grant permission, the app can automatically detect your location via your browser.

Depending on your location you can see a blue square if you search for data within and closely around Austria. The blue square is called a bounding box and indicates from which area the measurements are taken. It is only displayed for weather data coming from GeoSphere.



https://rain.kx-digital.com/

What will I see in KX Rain?

In KX-Rain, you will see:

- **Current Precipitation Widget**: Displays the current rainfall at your selected location.
- **Daily Precipitation Bar Chart**: A bar chart that shows the daily rainfall data for the past year, based on your selected location.
- **Annual Evaluation Line Chart**: A line chart showing the total accumulated rainfall for the past year. You can also compare rainfall between two years in this chart.

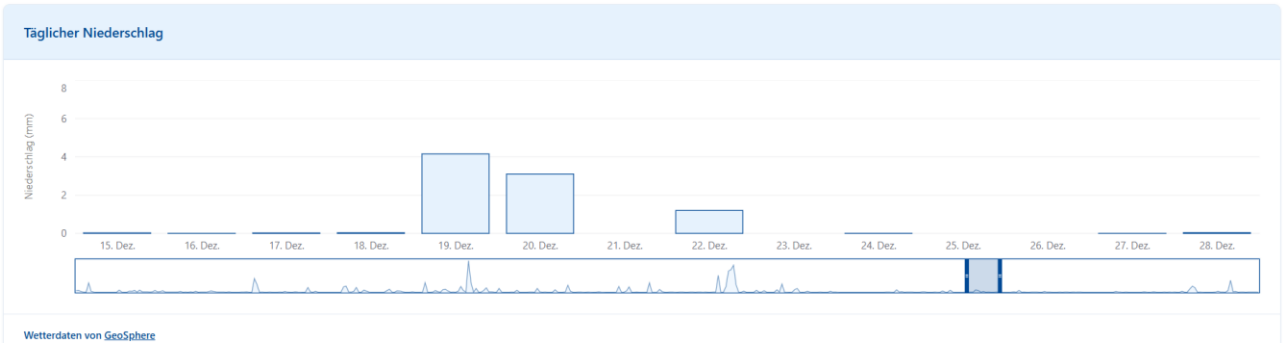
What can I see in the charts and what can I do in the charts?

Daily Precipitation Bar Chart: This chart displays rainfall for each day over the past year. It helps you track rainfall patterns on a daily basis.

> **Interactive Timeframe Bar**: Below the daily rain bar chart, you'll see a depiction of the rainfall over the year along with a manipulable bar. This allows you to adjust and control the timeframe you want to explore. You can choose to zoom in on specific periods and select the amount of data you'd like to see on the bar chart above.

Accumulated Rain Line Chart: This chart shows the cumulative rainfall over a year. You can compare rainfall across two different years to analyze trends.

In both charts, you can hover over the data points for more detailed information.



https://rain.kx-digital.com/

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