Detection and Display of Out-of-Range Values in Non-Accumulator Meter Readings

help.fracttal.com/hc/en-us/articles/40116558038669-Detection-and-Display-of-Out-of-Range-Values-in-Non-Accumulator-Meter-Readings

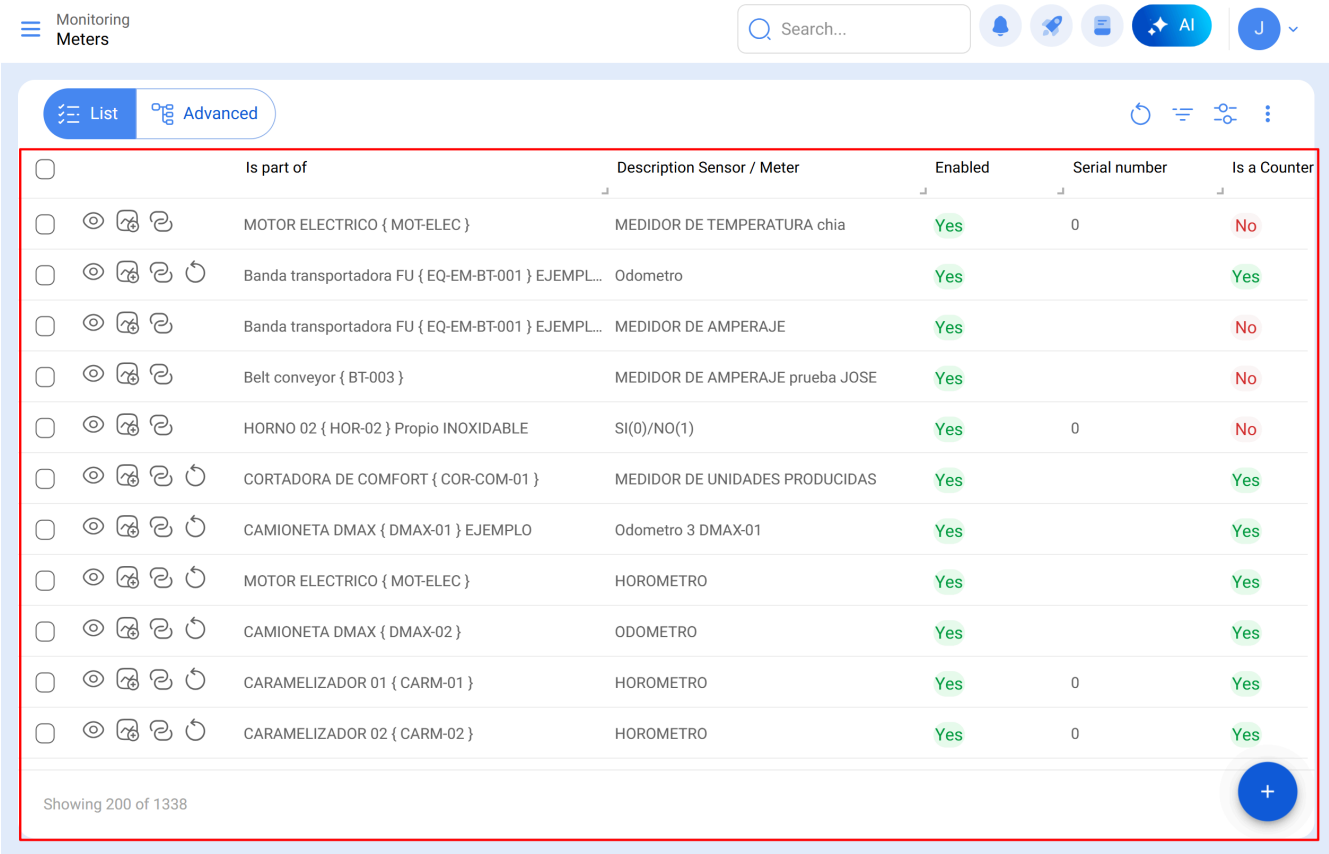
In the **Readings** submodule of meters, the system allows identifying if a reading recorded on a variable-type meter(non-accumulator) is outside the allowed range defined by the minimum and maximum values configured on the meter.

This functionality facilitates the control and analysis of anomalous readings, automatically showing if a value exceeds the defined limits and by how much.

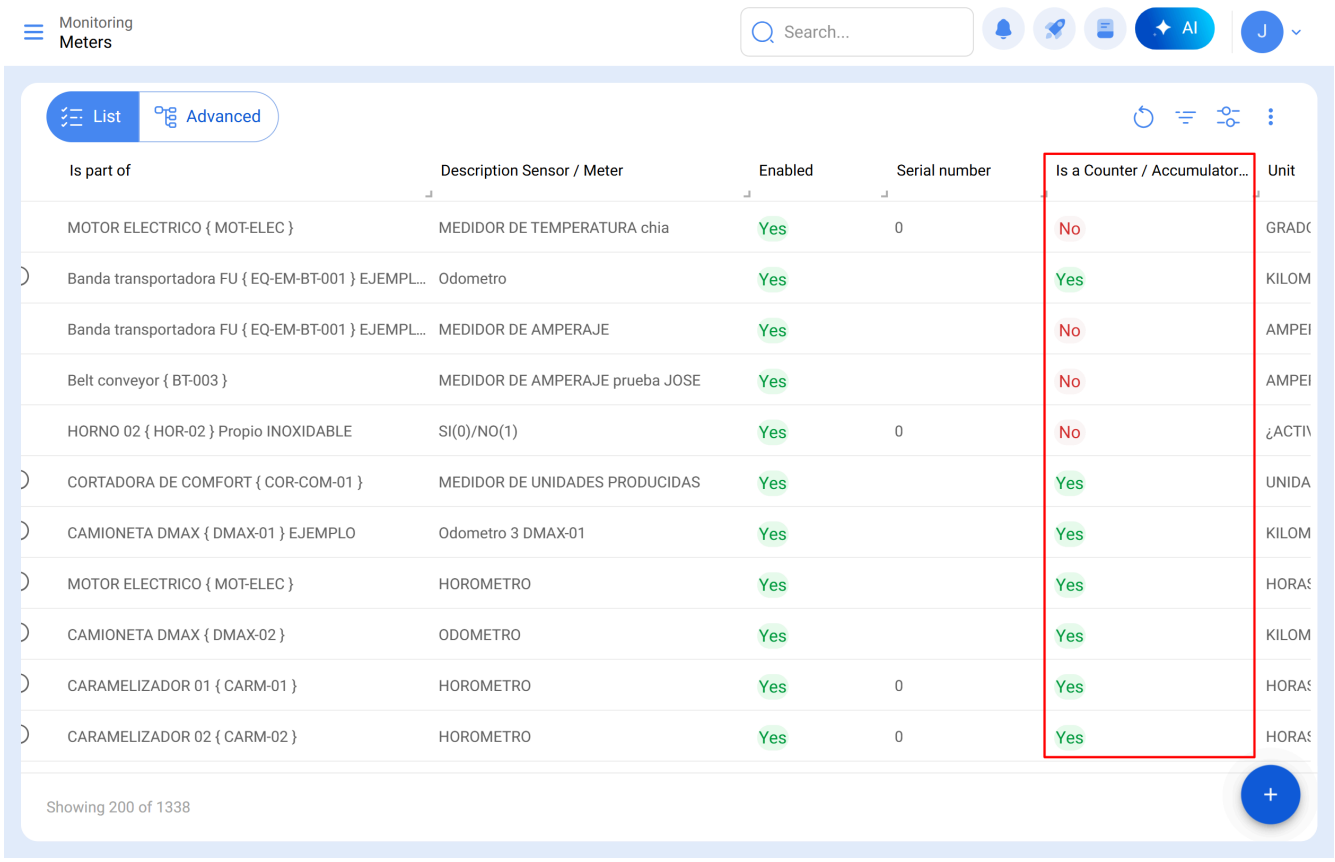
How to Access Meter Readings

To start, access the main menu of Fracttal One and choose the **Meters** module.

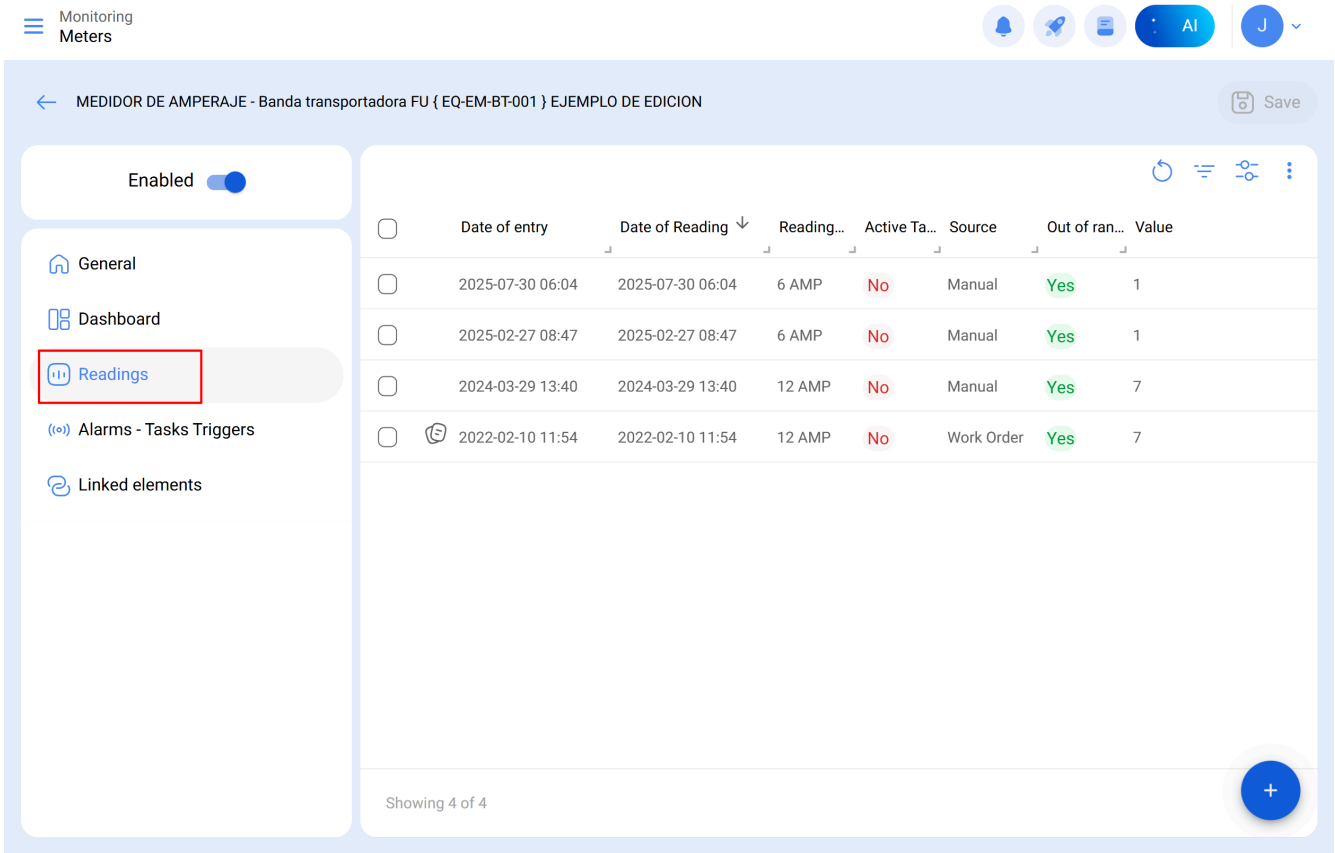
In the meters overview, **identify and select the desired meter**.



Note: only **non-accumulator** type meters allow viewing this functionality.



Once inside the meter, select the **Readings** submodule from the side menu.

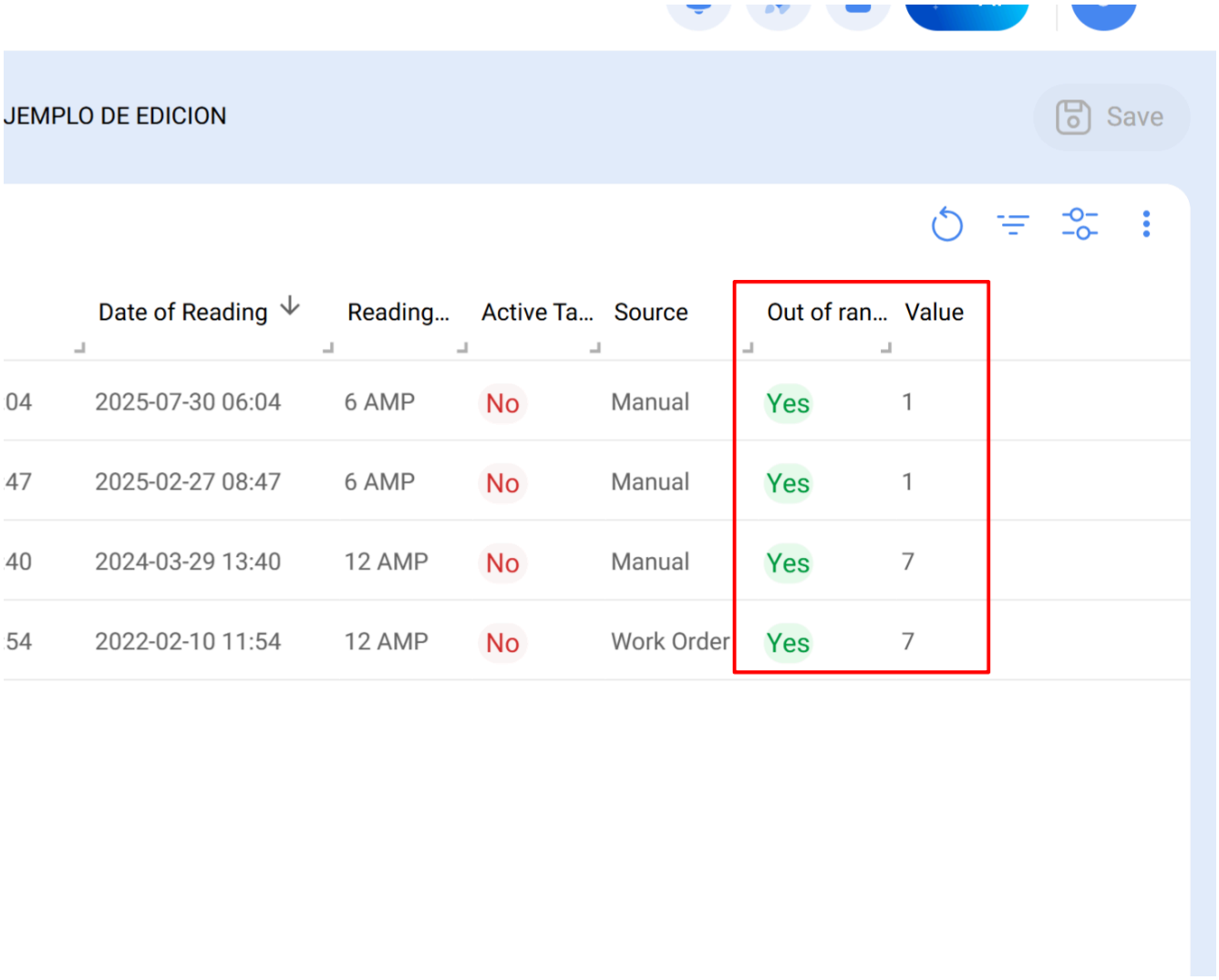


In the readings history, you can consult the records associated with the meter, along with detailed information about each reading.

Fields Available in the Readings Table

The readings table includes the following specific columns:

- **Out of Range (Yes/No):** indicates whether the reading is out of the defined range.
- **Value:** shows the difference between the recorded value and the limit that has been exceeded (positive if the value exceeds the maximum, negative if it is below the minimum).



These columns do not apply to **cumulative counter type meters**, as their operation is based on progressive increments.

Practical Example

Suppose a meter with a range defined between **20** and **100** units:

Registered Reading	Out of Range	Value
115	**Yes**	**15**
10	**Yes**	**-10**

In this example:

- A reading of **85** is considered within range.
- A reading of **115** exceeds the maximum, with a deviation of **+15**.
- A reading of **10** is below the minimum, with a deviation of **-10**.

Out-of-range readings help detect anomalous behaviors, measurement errors, or operating conditions outside the expected.

Note: The minimum and maximum values must be previously defined in the meter configuration for the evaluation to be correct.