

How-to use VIDI Charts

r.0-2021

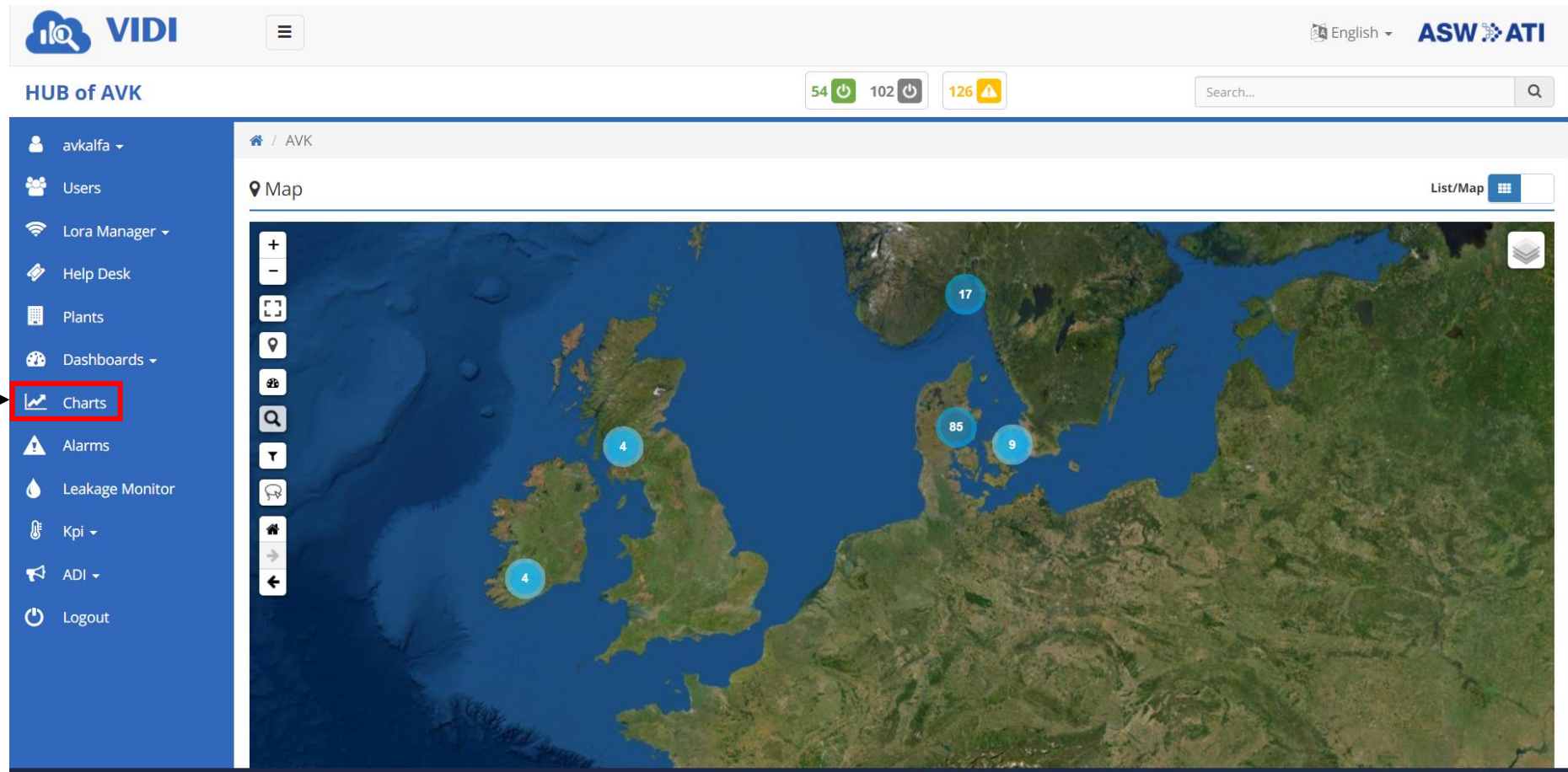
Charts

The *VIDI Charts* module allows to visualize the data acquired by the VIDI Devices in a graphical way. A chart can create a clearer picture of a set of data values. It's often easier to spot trends, patterns and outliers in charts than by simply looking through a table of data.

VIDI Charts offers a wide set of tools such as:

- Creating a chart with data of one or more tags, selecting custom or preset time intervals
- Creating different types of chart: line, points, bars and step lines. Single or multi-axis.
- Customizing the style of the chart (color, background, dimensions, font)
- Comparing between two different time periods
- Decimating data sets to a lower time resolution using sum, max, min and average algorithms
- A chart library where to store recurrent charts and load when needed

Open *Charts* from main menu



Toolbar

Create a new chart.
By clicking *New*, you will reset
the current chart settings

Open the chart library, where you can load
the charts which you previously saved

Export the current chart in PNG format

With *Save* and *Save As* you can save recurrent charts so
that they will be available in the library for future use

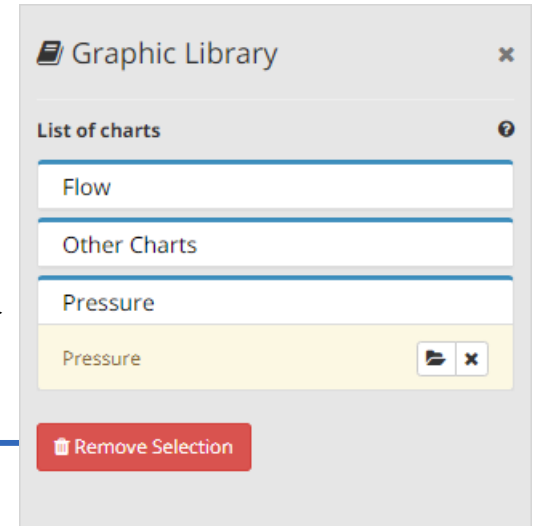
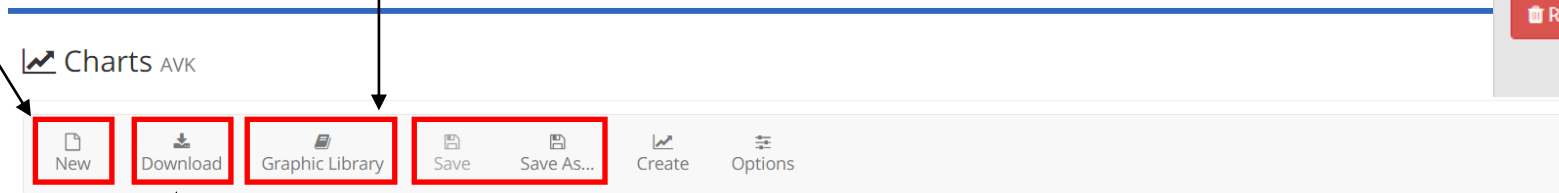
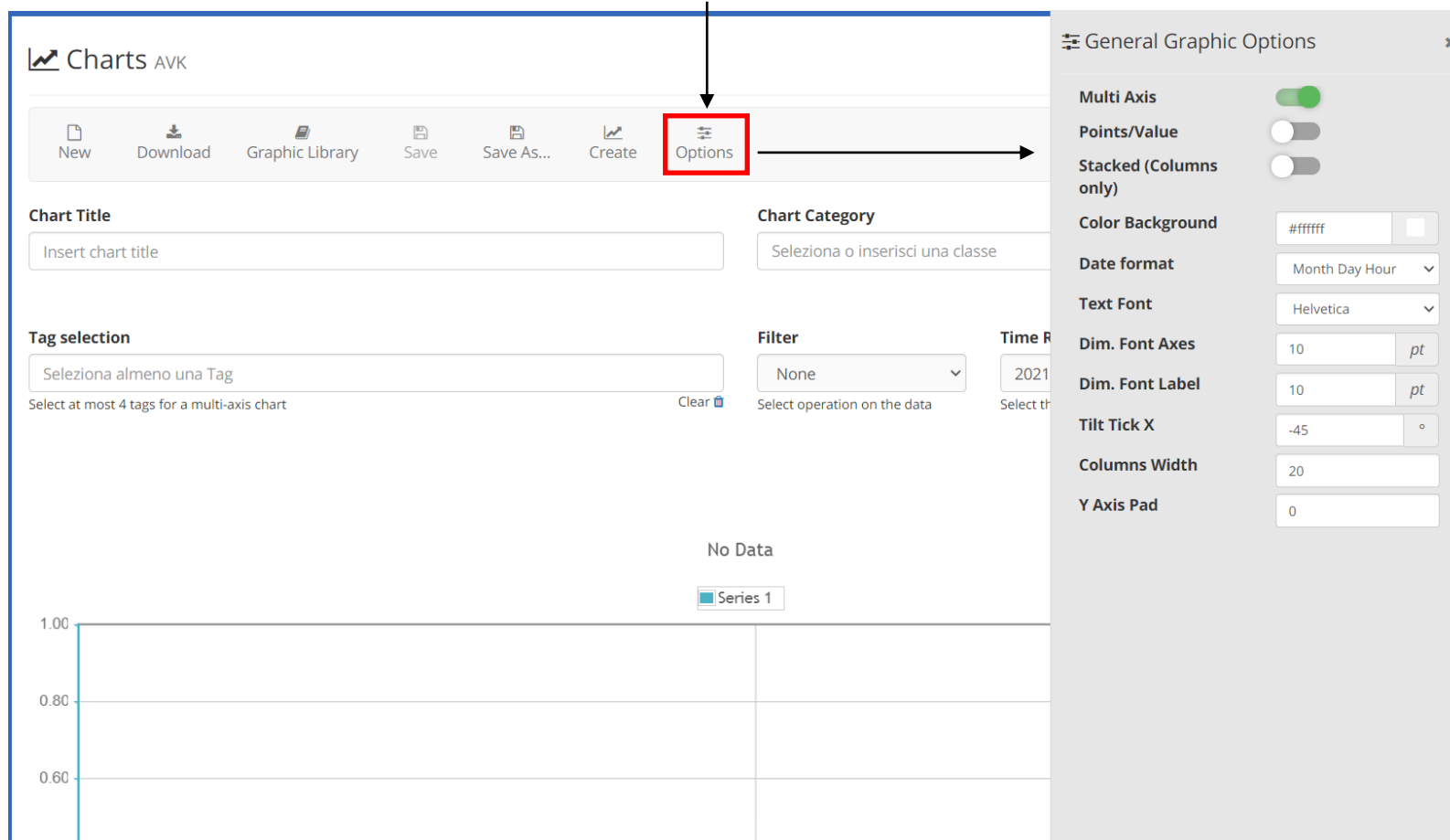


Chart style

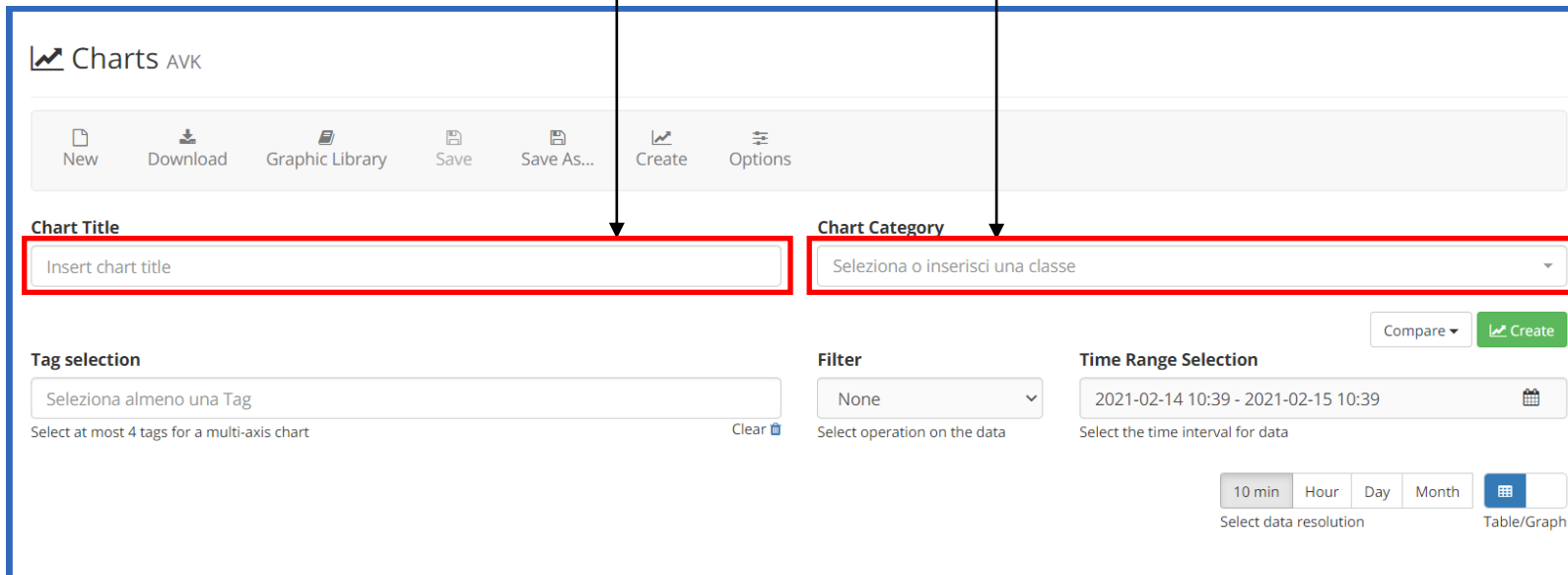
Press *Options* to open the side panel and edit the style of the chart



The screenshot displays the ASW Charts AVK software interface. At the top, a toolbar contains icons for New, Download, Graphic Library, Save, Save As..., Create, and Options. The Options icon is highlighted with a red box, and an arrow points from the text 'Press Options' to it. Below the toolbar, the main workspace is divided into sections for Chart Title, Chart Category, Tag selection, Filter, and Time Range. The Chart Title section has a text input field. The Chart Category section has a dropdown menu. The Tag selection section has a text input field and a 'Clear' button. The Filter section has a dropdown menu. The Time Range section has a date input field. The main workspace area shows a 'No Data' message and a legend for 'Series 1'. On the right side, a 'General Graphic Options' panel is open, displaying various settings for the chart's appearance, including Multi Axis, Points/Value, Stacked (Columns only), Color Background, Date format, Text Font, Dim. Font Axes, Dim. Font Label, Tilt Tick X, Columns Width, and Y Axis Pad.

Chart title and category

Optionally you can assign a title and a category so that the chart will be properly organized in the chart library



Charts AVK

New Download Graphic Library Save Save As... Create Options

Chart Title
Insert chart title

Chart Category
Seleziona o inserisci una classe

Tag selection
Seleziona almeno una Tag
Select at most 4 tags for a multi-axis chart Clear

Filter
None
Select operation on the data

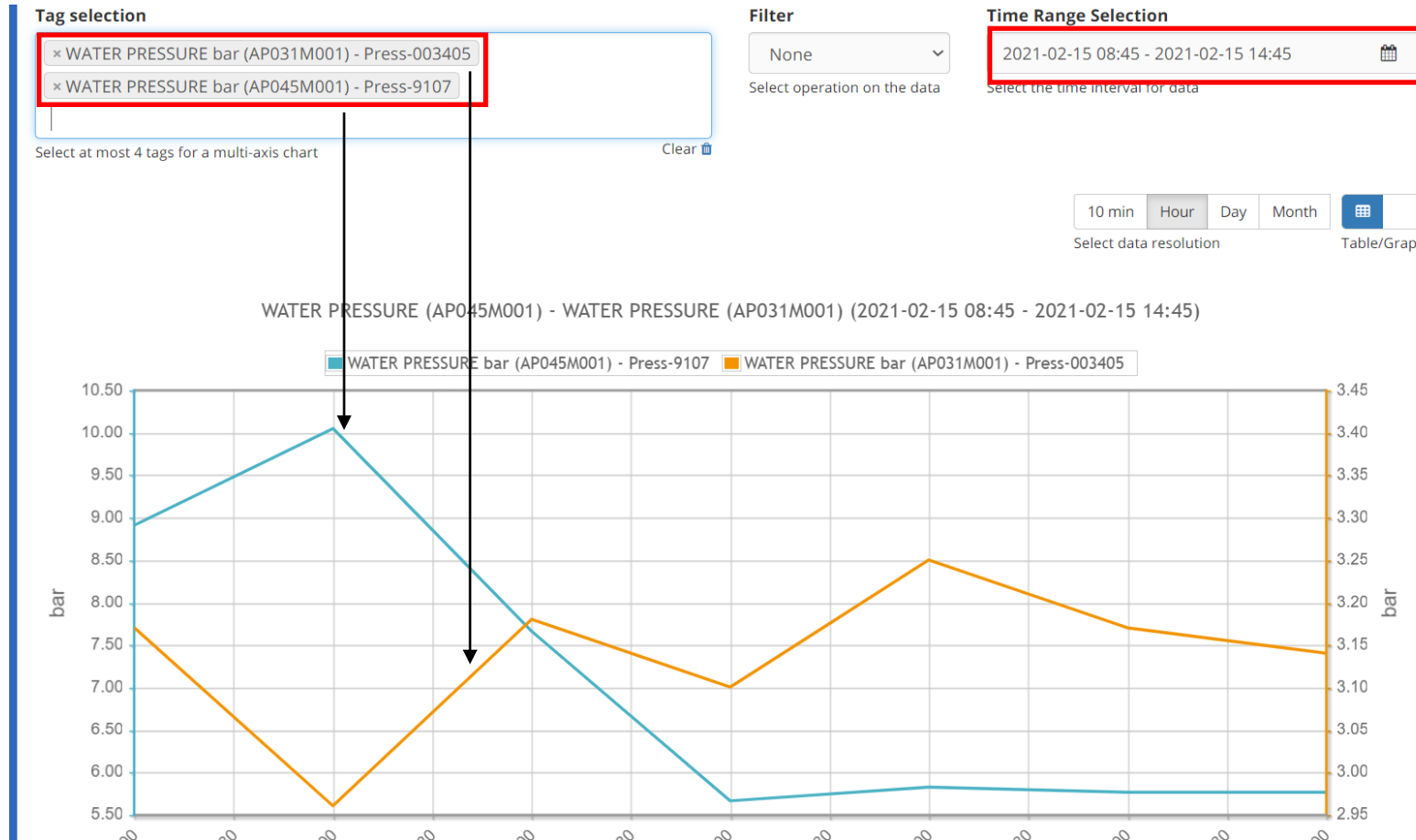
Time Range Selection
2021-02-14 10:39 - 2021-02-15 10:39
Select the time interval for data

Compare Create

10 min Hour Day Month
Select data resolution Table/Graph


Select tags and time interval

Select one or more tags to be plotted



Select the time interval to be plotted

Create chart

 Charts AVK

New Download Graphic Library Save Save As... Create Options

Chart Title
Insert chart title


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Time Range Selection
2021-02-14 10:39 - 2021-02-15 10:39
Select the time interval for data

Compare **Create**

10 min Hour Day Month 
Select data resolution Table/Graph

No Data

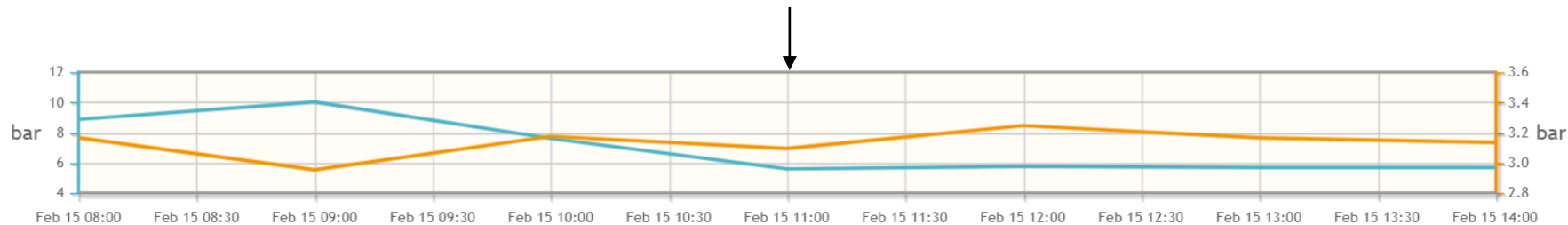
Series 1

1.00
0.80
0.60

Once you have selected the tag and the time interval, press *Create* to generate the chart

Zoom and plot settings

Click and drag on the bottom plot to zoom on the top plot. Double click or click the *Reset zoom* button to reset zoom





Click and drag to zoom. Double-click inside the lower graph or click on the 'Reset Zoom' button to reset the zoom.

 Reset Zoom

Data Set Options

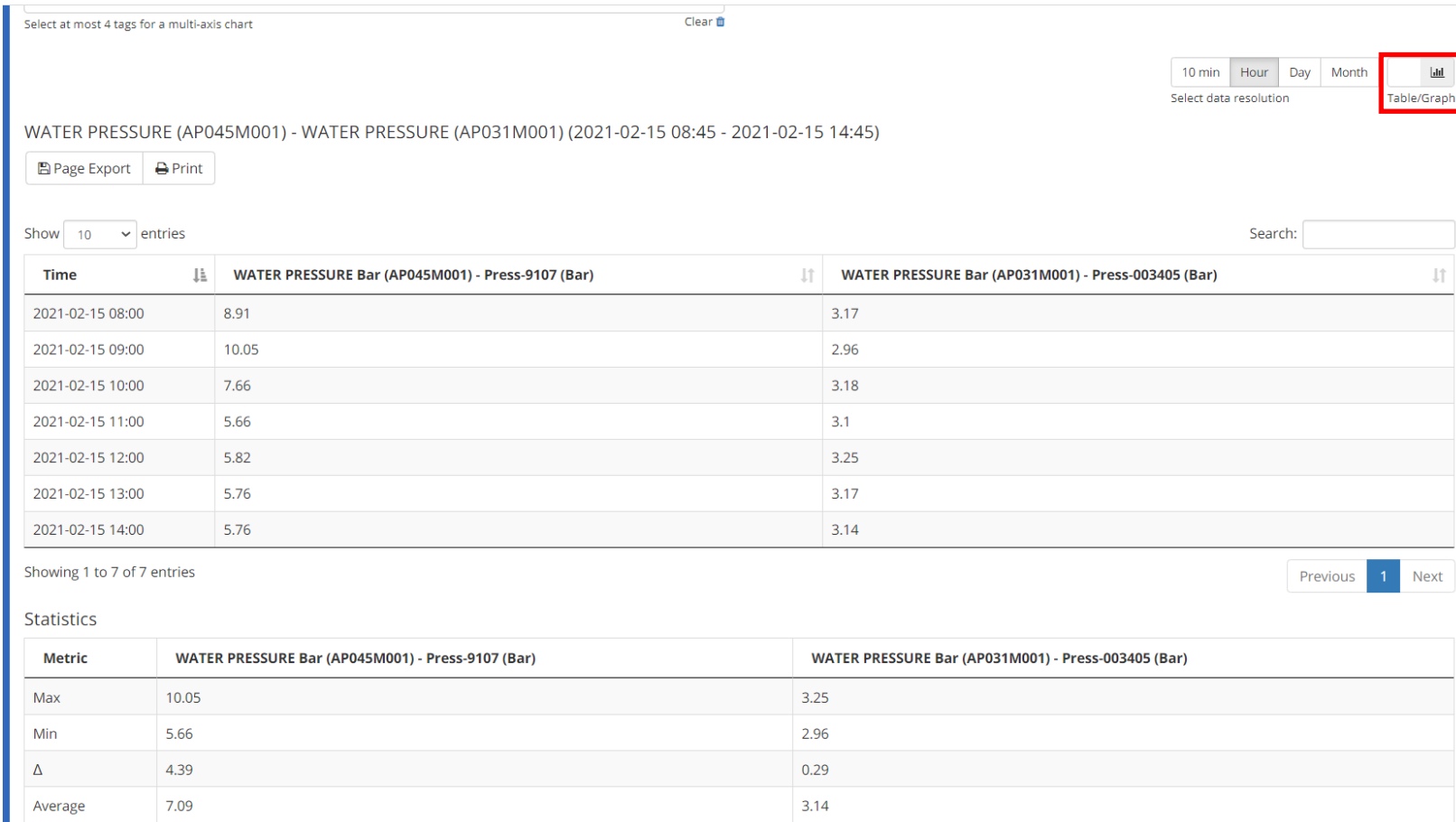
Set 1 2021-02-15 08:45 - 2021-02-15 14:45

#	Label	Markers	Type of chart	Color
1	WATER PRESSURE bar (AP045M0C)	<input type="checkbox"/>	Line	#4bb2 
2	WATER PRESSURE bar (AP031M0C)	<input type="checkbox"/>	Line	#f294 

← Edit the style of the tracks

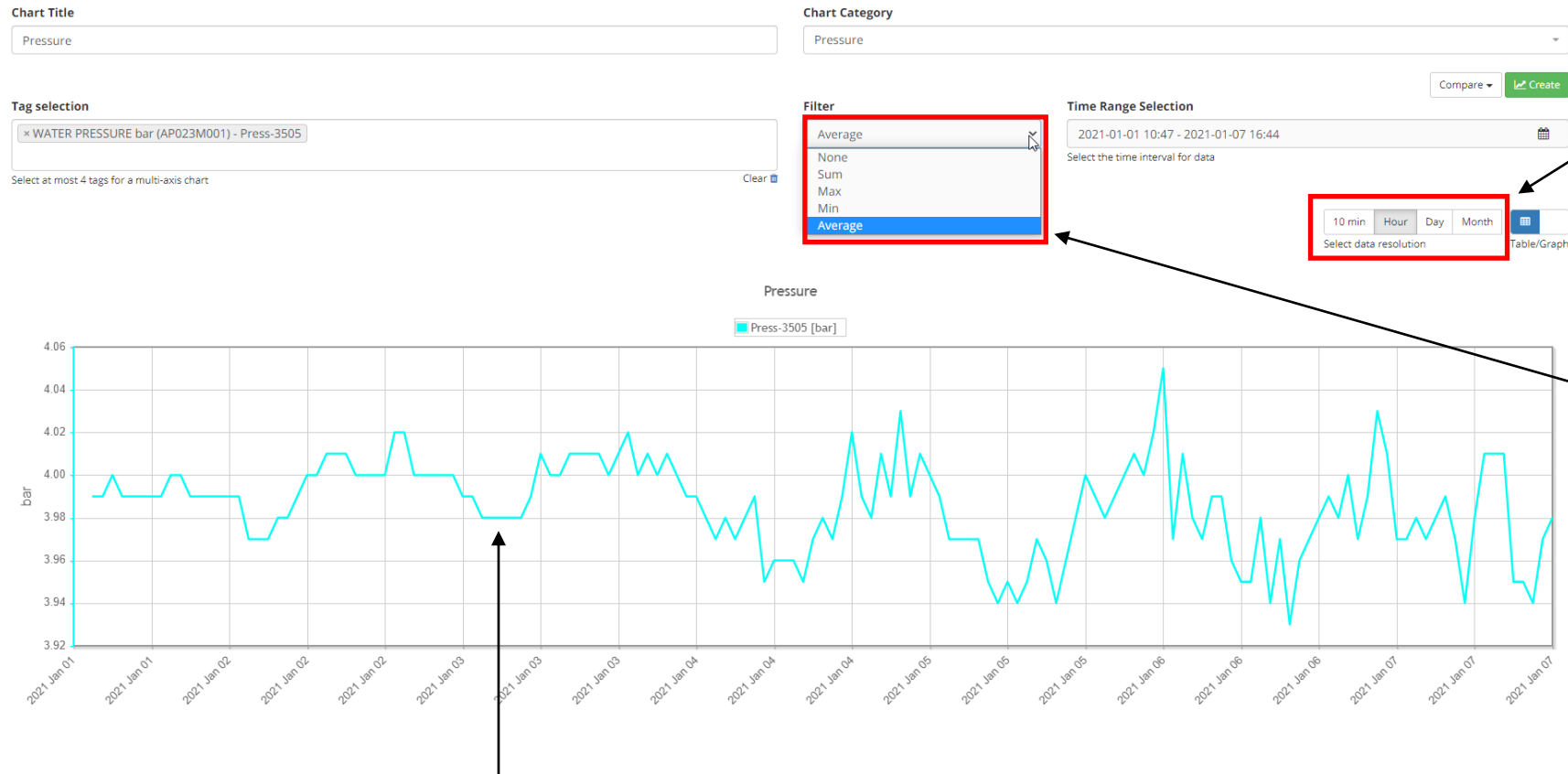
↑ Chart type: bar, line, point, step lines

Table/Graph view



By clicking the switch you can see the data in the form of a table

Data resolution



It is possible to change the data resolution

The records will be filtered using one of the following filters:

- Sum
- Maximum
- Minimum
- Average

Example: the original data rate has one sample every 5 minutes. In this example, the “Hour” resolution is selected, so the chart show one sample (the average of the 12 samples) every single hour.

Compare function



It is possible to make a comparison between two different time periods of the same tag:

- Previous period: the data is compared with the time interval immediately antecedent to the current
- Last year: the data is compared with the same interval last year
- Custom: it is possible to select a second time interval to compare to the current one

Cyan track: last week data

Example: multi-axis chart

Enable Multi-Axis in Options

Chart Title

Chart Category

Tag selection

WATER PRESSURE bar (AP023M001) - Press-3505
TEMPERATURE °C (AP104M001) - Temp-4737

Filter

Time Range Selection

Compare
Create

Select at most 4 tags for a multi-axis chart
Clear

General Graphic Options

Multi Axis

Points/Value

Stacked (Columns only)

Color Background

Date format

Text Font

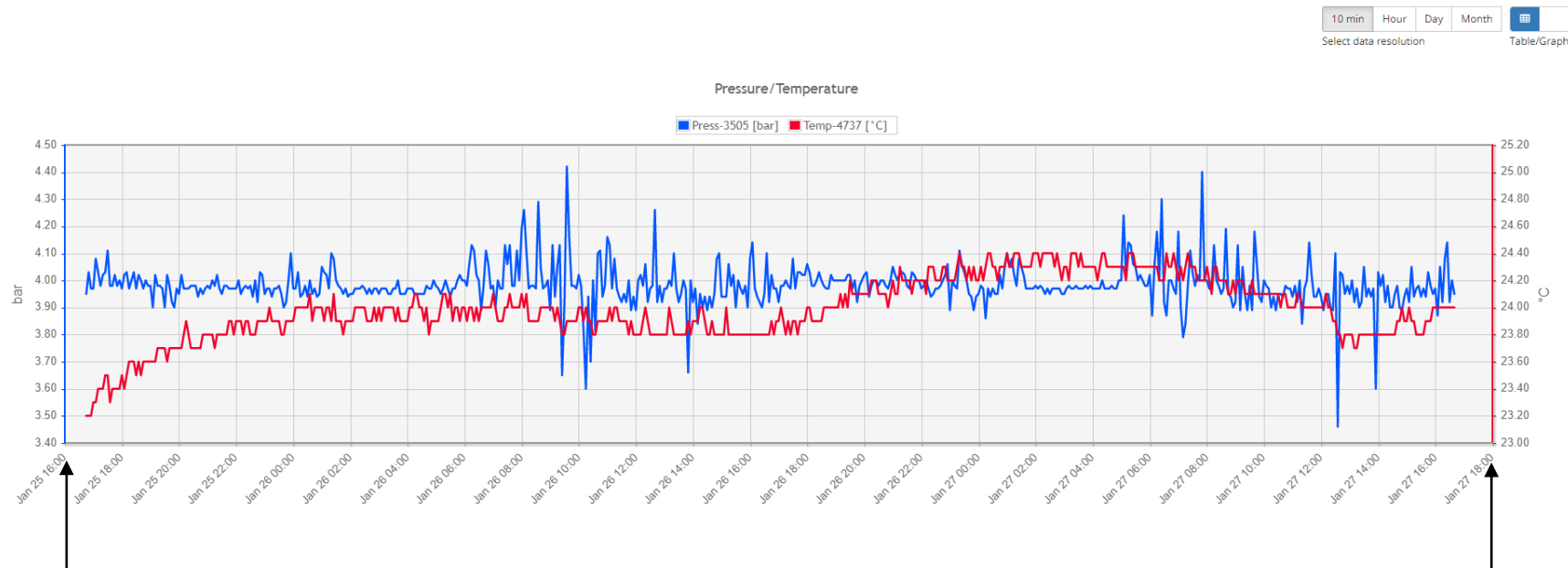
Dim. Font Axes

Dim. Font Label

Tilt Tick X

Columns Width

Y Axis Pad



Pressure axis (blue)

Temperature axis (red)

Example: total daily water flow

Selected tag:
daily water
volume [m³]

Chart Title:

Tag selection:

Chart Category:

Filter:

Time Range Selection:

Compare with:

Time Range Selection:

Select data resolution:

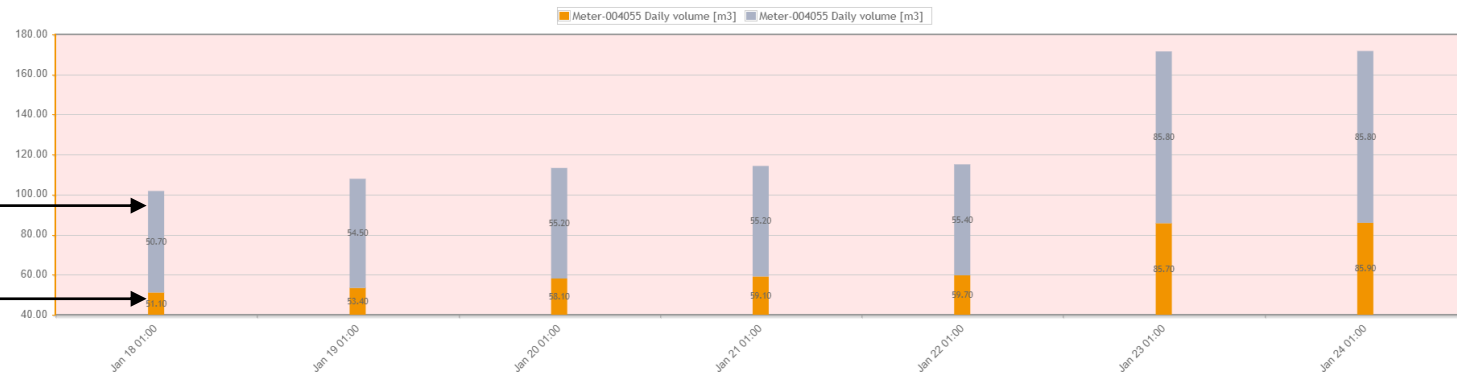
Table/Graph:

Comparison with
previous week

Data filtering: one
sample per day
(maximum)
It indicates the
volume of water
flown in a day

Gray stack:
previous monday

Orange stack:
current monday



Select *Columns* as chart type

Type of chart

Columns

Enable *Stacked* in Options

Stacked (Columns
only)

