



DEUTSCHE BÖRSE
CASH MARKET

Chart Module User Manual

Introduction

The chart module is provided by Deutsche Börse Cash Market as a web service. It is accessible via HTTP requests from inside a web browser.

The chart module is a very flexible tool. You can customize it by providing various parameters to meet your company's requirements.

In this document we will present

- how the chart module and price widget can be integrated to your web page and
- all available customization parameters

The Issuer Services team kindly offers to assist you with the establishment of the chart link.

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1 Product overview

1.1 Stock Chart Module

The module provides issuers the opportunity to display the company's stock chart on their (IR-) website. This commonly used chart can be easily integrated using an iframe and adjusted to your corporate design. Please find a detailed description for the adjustment and integration of the stock chart from [section 2.1](#) onwards.



URL: <https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055>

1.2 Price Widget

The widget can be additionally integrated into the company's (IR-) website to give users an overview of the current share price. This widget can also be easily integrated using an iframe and adjusted to your corporate design. Please find a detailed description for the adjustment and integration of the price widget from [section 6.1](#) onwards.



URL: <https://xms.deutsche-boerse.com/chartmodule/brand-value?ISIN=DE0005810055>

2 Stock Chart Module - Customization Parameters

You can customize the chart module by providing parameters to the URL used in the prior section. There are two types of customization parameters:

- required parameters and
- optional parameters.

2.1 Required Parameter

This parameter is required by the web service. Omitting this parameter will cause an error and the chart module will not be displayed properly on your web page. Make sure to provide it to the URL inside the iframe tag.

2.1.1 ISIN

Provide your company's ISIN using the following parameter.

```
https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055
```

2.2 Optional Parameters

These parameters are optional. Default values will be used if you do not define them.

2.2.1 MARKET

The chart module displays data from the XETRA and FRANKFURT markets. This parameter defines which market's data is displayed when the chart module is loaded. Users can change between the XETRA and FRANKFURT markets by interacting with the UI.

Valid values:

- "DETR" for XETRA and
- "DFRA" for FRANKFURT.

```
https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&MARKET=DFRA
```

In case you do not define a value for this parameter, or you provide an invalid value, the default "DETR" (XETRA) value will be used.

2.2.2 LANG (Language)

You can set the language from the chart by providing a value for the LANG parameter.

Two languages are supported:

- German (default) and
- English

Valid values:

- "de" for German (default)
- "en" for English

```
https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&LANG=en
```

In case you do not define a value for this parameter, or you provide an invalid value, the default "de" (German) value will be used.

2.2.3 TIME_SPAN

The chart module displays data for specific time-periods (last hour, intraday, last week, last month, last year, max). This parameter defines the time-period that is displayed by default (when loading the webpage). Module end users can still browse through the various time-periods by using the buttons in the top right corner of the module.

Valid values:

- "1H" for last hour
- "1D" for intraday
- "1W" for last week
- "1M" for last month
- "1Y" for last year
- "MAX" for the whole history

In case you do not define a value for this parameter, or you provide an invalid value, the default "1Y" (last year) value will be used.

https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&MARKET=DFRA&TIME_SPAN=1M

3 Custom Design Parameters

Use the parameters of this section to override the default colors if you want to adjust the chart's colors to fit your web page and/or corporate colors.

Figure 1 shows which parameters affect the respective parts of the chart.

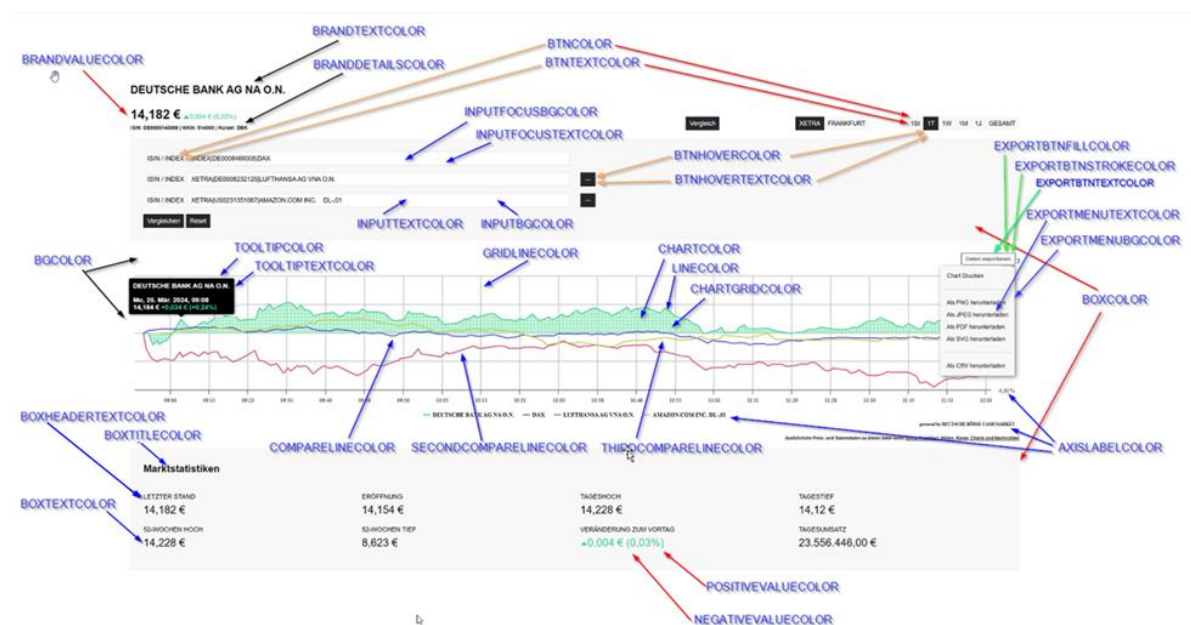


Figure 1: Custom Design Parameters

3.1 Example components

3.1.1 BRANDTEXTCOLOR

DEUTSCHE BOERSE NA O.N.

194,35 € ▲ 1,60 € (0,83%)

ISIN: DE0005810055 | WKN: 581005 | Symbol: DB1

COMPARE

XETRA FRANKFURT

1H 1D 1W 1M **1Y** MAX

e.g.

<https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&BRANDTEXTCOLOR=009>

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

3.1.2 RANDVALUECOLOR

DEUTSCHE BOERSE NA O.N.

194,35 € ▲ 1,60 € (0,83%)

ISIN: DE0005810055 | WKN: 581005 | Symbol: DB1

COMPARE

XETRA FRANKFURT

1H 1D 1W 1M **1Y** MAX

e.g.

<https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&RANDVALUECOLOR=3c3c3c>

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

3.1.3 BRANDDETAILSCOLOR

DEUTSCHE BOERSE NA O.N.

194,35 € ▲ 1,60 € (0,83%)

ISIN: DE0005810055 | WKN: 581005 | Symbol: DB1

COMPARE

XETRA FRANKFURT

1H 1D 1W 1M **1Y** MAX

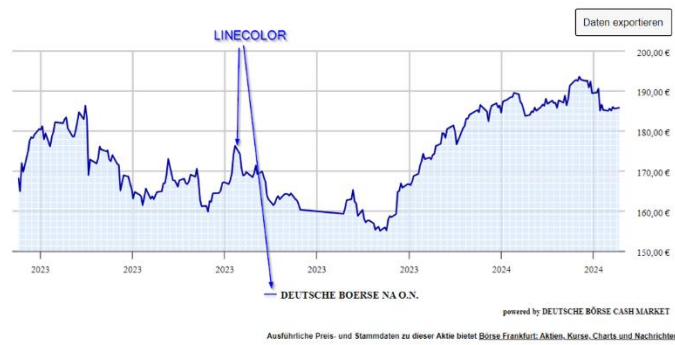
e.g.

<https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&BRANDDETAILSCOLOR=3c3c3c>

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

3.1.4 LINECOLOR

This parameter sets the chart line color.



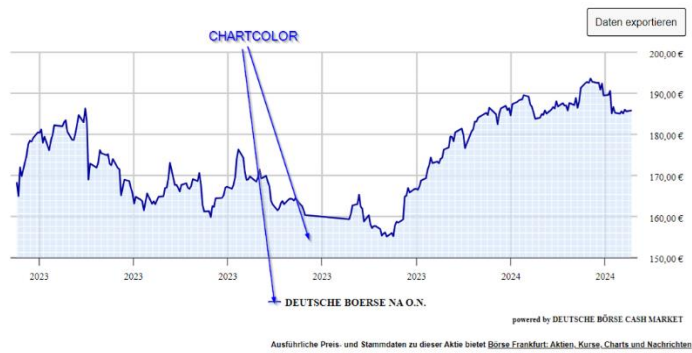
e.g.

<https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&LINECOLOR=000>

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

3.1.5 CHARTCOLOR

This parameter sets the chart fill color.



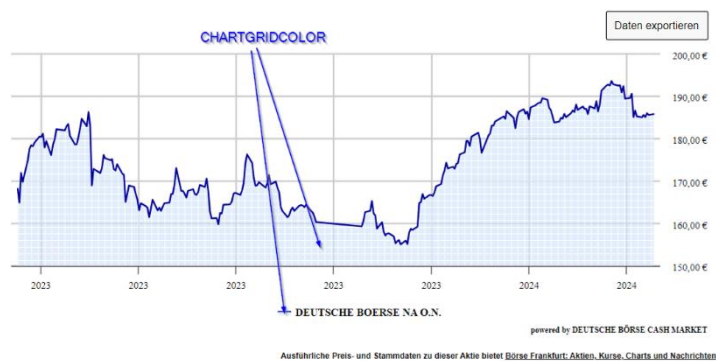
e.g.

<https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&CHARTCOLOR=000>

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

3.1.6 CHARTGRIDCOLOR

This parameter sets the chart fill grid color.



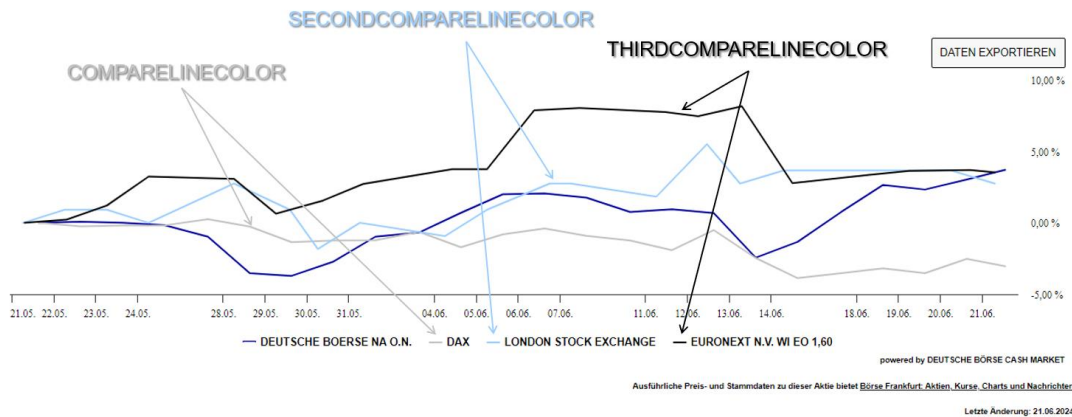
e.g.

```
https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&CHARTGRIDCOLOR=000
```

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

3.1.7 COMPARELINECOLOR

This parameter sets the line color for the ISIN given in the first compare input field.



e.g.

```
https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055&COMPARELINECOLOR=000
```

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

4 How to Integrate the Chart Module

You can easily integrate the chart module into your own web page inside an iframe.

Add an iframe HTML tag (example below) where you want the chart to be displayed to your web page.

```
<iframe src="{URL}" style="border: none; width: 100vw; height: 110vh;"></iframe>
```

Just replace {URL} with the following Link and replace “company ISIN” with your individual ISIN:

```
https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=company ISIN
```

For example: DE0005810055 (Deutsche Börse AG)

```
<iframe src="https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055" style="border: none; width: 100vw; height: 110vh;"></iframe>
```

The only thing missing is to add some parameters to the above URL and you will have the chart module on your web page. The following pages will provide an overview towards the available parameters.

5 Example Customized Stock Chart

Figure 2 shows a mockup where we have integrated the chart module into one of our web pages for test purposes.



Figure 2: Example

Below is the iframe tag used to integrate this chart:

```
<iframe src="https://xms.deutsche-boerse.com/api/v1/chartmodule?ISIN=DE0005810055
&CHARTCOLOR=d3e3fa&BTNHOVERCOLOR=009&LINECOLOR=009&BRANDTEXTCOLOR=009&BRANDETAILSCOLO
R=009&BRANDVALUECOLOR=009&TOOLTIPCOLOR=009&COMPARELINECOLOR=4c9cfc&BOXTITLECOLOR=009&BOX
HEADERTEXTCOLOR=009&BOXTEXTCOLOR=009" style="border: none; width: 100vw; height: 110vh;"></iframe>
```

6 Price Widget - Customization Parameters

The stock price widget illustrates the current stock price and the key stock identification data. It can be used in overview pages as a button or pointer linked to the detailed stock chart module.

6.1 Customization Parameters

As with the Chart Module, you can also customize the widget by providing the same parameters to the URL used in the prior section. The required and optional parameters can be adjusted as described in point “[2. Customization Parameters](#)” on pages 3-4.

7 Custom Design Parameters

Custom design parameters are optional. Use the parameters of this section to override the default colors and font-sizes if you want to adjust the module’s colors to fit your web page.

Figure 3 shows which parameters affect which parts of the chart.



Figure 3: Custom Design Parameters

7.1 Example components

6.3.1 BRANDTEXTCOLOR



e.g.

<https://xms.deutsche-boerse.com/chartmodule/brand-value?ISIN=DE0005810055&BRANDTEXTCOLOR=009>

Valid values: a hexadecimal RGB color string of length three or six without the hash symbol (#).

6.3.2 BRANDFONTSIZE

Valid values: a number in rem. In case of a decimal number, use “.” instead of “,”. If you use a decimal number with “,”, then the value will be considered as invalid and the default value will be used.



e.g.

<https://xms.deutsche-boerse.com/chartmodule/brand-value?ISIN=DE0005810055&BRANDFONTSIZE=1.5>

8 How to Integrate the Stock Price Widget

The integration process is the same as with the stock chart module, it can be easily integrated into your own web page via an iframe.

Add an iframe HTML tag (example below) where you want the chart to be displayed to your web page.

```
<iframe src="{URL}" style="border: none; width: 100%; height: 100%;"></iframe>
```

Just replace {URL} with the following Link and replace “company ISIN” with your individual ISIN:

```
https://xms.deutsche-boerse.com/chartmodule/brand-value?ISIN=company ISIN
```

For example:

```
<iframe src="https://xms.deutsche-boerse.com/chartmodule/brand-value?ISIN=DE0005810055" style="border: none; width: 100%; height: 100%;"></iframe>
```

9 Example Customized Price Widget

Figure 4 shows an example of the price widget based on the Deutsche Börse stock and corporate colors.



Figure 4: Example

Below is the iframe tag used to integrate this chart:

```
<iframe src="https://xms.deutsche-boerse.com/chartmodule/brand-value?ISIN=DE0005810055
&MARKET=DETR&BGCOLOR=000099&BRANDTEXTCOLOR=FFFFFF&BRANDVALUECOLOR=1cd1b0&BRANDDTAILSC
OLOR=FFFFFF&POSITIVEVALUECOLOR=3ccf94&NEGATIVEVALUECOLOR=f00&LANG=de&BRANDFONTSIZE=2.3&VAL
UEFONTSIZE=3.2&DIFFVALUEFONTSIZE=1.9&DETAILSFONTSIZE=1.2" style="border: none; width: 100%; height:
100%;"></iframe>
```