

# Donchian Indicator



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# 1. Overview

The Donchian indicator shows Donchian channels: the high and low of the previous N bars.

#### https://en.wikipedia.org/wiki/Donchian\_channel

In addition to the classic Donchian calculation, the indicator also has <u>three other</u> <u>options</u>: average (mean) of the highs/lows; mid-point of the highs/lows; and lowest-high rather than highest-high.

You can also choose to <u>expand</u> (or contract) the Donchian channel: by a fixed percentage, or a price amount, or a multiple of ATR or SD.

You can also turn on pop-up <u>alerts</u> when the current price breaches the high or low lines.



# 2. Using the Donchian indicator

### 2.1 Adding the indicator to a chart

You add the Donchian indicator to a chart in the usual MT4 way, either by dragging it from the Navigator onto a chart, or by double-clicking on it in the Navigator. You can also use standard MT4 features such as adding the indicator to your list of Favorites, or assigning a Hotkey to it.

# 2.2 Timeframe

By default the indicator will be based on the same timeframe as the current chart, and will change if you alter the chart's timeframe.

However, you can use the Inputs tab to make the indicator use a higher timeframe (but not a lower one). For example, you can show the D1 Donchian high and low on an H1 chart.

# 2.3 Bars and shift

You use the Inputs tab to tell the indicator how many bars to include, and how many bars to shift back by. The classic Donchian values are 20 and 1: use the last 20 bars up to but excluding the current bar. (If you set the shift to zero then the current bar's high and low are included in the calculation.)

#### 2.4 Type of calculation

The classic Donchian calculation is to take the highest-high and lowest-low of the selected <u>range</u>.

However, the indicator also provides three other calculations:

- Average (mean) of the highs and lows
- Mid-point of the highs and lows, i.e. halfway point between highest-high and lowest-high, and between lowest-low and highest-low
- Lowest-high and highest-low



### 2.5 Expanding the range

You can tell the indicator to expand its high-low range. You choose a mode on the Inputs tab, and an amount to expand by (which can be negative in order to contract the range rather than expanding it).

The expansion modes are as follows:

- Percentage. The high is increased by N% and low is decreased by N%. (Therefore, it you set the parameter to 10, the total high-low range is increased by 20%.)
- Price amount. You set the parameter to a value such as 0.0010, and this is added to the high and subtracted from the low.
- ATR multiple. The high is increased and the low is decreased by the specified multiple of the ATR for the period.
- Standard Deviation multiple. The high is increased and the low is decreased by the specified multiple of the SD for the period.

#### 2.6 Colours

You set the colours and style for the Donchian lines in the usual way, using the Colors tab. However, you can also use the Inputs tab to tell the indicator to draw the Donchian channel as a filled histogram instead of as lines.

#### 2.7 Alerts

You can turn on pop-up alerts when the current price goes beyond the high or low values. The indicator will only generate one alert per bar (treating the high and low independently). For example, if the high is breached, then the indicator will not issue another alert about a breach of the high before the start of the next bar.



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