



EDO BANDS FUSION

Official Manual

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English

Table of Contents

Section 1 — Introduction

Section 2 — What Edo Bands Fusion Is and Is Not

Section 3 — Indicator Philosophy

Section 4 — Technical Foundation: Bollinger Bands, Donchian and BBWP

Section 5 — Indicator Structure

Section 6 — Bollinger Bands Layer

Section 7 — Donchian Channels Layer

Section 8 — Volatility Percentile Layer (BBWP)

Section 9 — State Classification

Section 10 — Donchian Breakout Markers

Section 11 — Information Panel

Section 12 — Settings and Customization

Section 13 — Alerts

Section 14 — Combined Reading and Patterns

Section 15 — Access and License

Section 16 — Risk Warning

Section 17 — Conclusion

Section 1 — Introduction

Edo Bands Fusion is a volatility and structure indicator that fuses in a single coordinated panel the two reference readings for framing the operating range of any asset: John Bollinger's Bollinger Bands and Richard Donchian's Donchian Channels. On top of this double envelope, a percentile volatility layer (BBWP) ranks the current band width against its own history and allows the detection of compression and expansion regimes.

Its goal is to deliver a complete reading of the market state on a single surface: where price stands relative to its statistical mean, where it stands relative to recent range extremes, and at which point of the volatility cycle we are. The indicator color-codes the bands based on the dominant state, marks confirmed Donchian breakouts and highlights squeeze periods on the chart.

Edo Bands Fusion is part of the Edolab ecosystem as a free-access indicator and is designed for traders who want a quick structural framing of the market before making finer decisions with oscillators, volume reading or other specific indicators.



Edo Bands Fusion on NBIS weekly: Bollinger Bands color-coded by state, Donchian Channels enveloping in red and green, breakout marker and information panel with the volatility state and price position percentages.

Section 2 — What Edo Bands Fusion Is and Is Not

What it is

Edo Bands Fusion is a structural and volatility framing tool. It combines three independent but coordinated layers:

- A statistical envelope (Bollinger Bands) that measures how far price deviates from its mean in standard deviation terms.
- A range envelope (Donchian Channels) that marks the maximum and minimum of the last N periods as an operational breakout reference.
- A percentile volatility ranking (BBWP) that places the current band width relative to its history and classifies the current regime between compression, normal and expansion.

What it is not

It is not a closed entry system nor a momentum oscillator. It does not generate binary buy-sell signals. It does not predict reversals. Its reading is always contextual and must be combined with the asset's structure and your own trade management system.

Summary

- Edo Bands Fusion contextualizes the range and volatility of the asset.
- Bollinger Bands + Donchian + BBWP on a single comparable surface.
- Donchian breakout markers are regime-change confirmations, not entry signals per se.

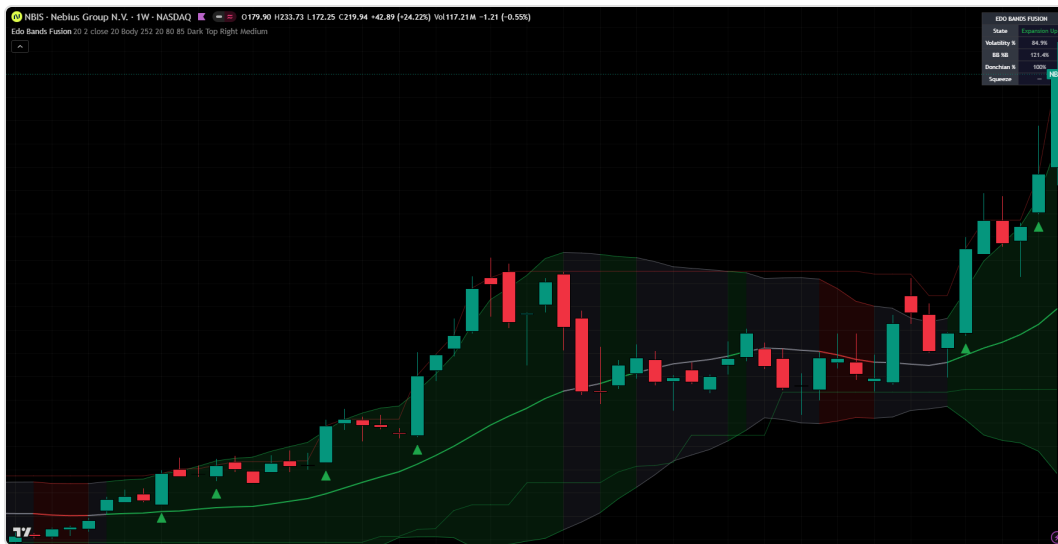
Section 3 — Indicator Philosophy

The philosophy of Edo Bands Fusion is to separate three questions a trader needs to answer before trading and solve them in a single visual block:

1. **Where is price relative to its statistical mean?** — solved by Bollinger's basis line (simple moving average of close) along with its upper and lower bands at 2 standard deviations.
2. **Where is price relative to the extremes of the recent range?** — solved by the Donchian Channel, which takes the maximum and minimum of the last N candles.
3. **At which point of the volatility cycle are we?** — solved by BBWP, which ranks the current Bollinger Band width against its history through a percentile rank.

The three layers were chosen to be independent of each other: Bollinger measures statistical dispersion, Donchian measures absolute extremes, and BBWP measures relative volatility. When they coincide, the reading is more robust. When they diverge, it marks especially interesting market points — for example, a price reaching the Donchian extreme but still inside the Bollinger Bands suggests a strong directional move without statistical overheating.

The indicator state is calculated automatically and translated visually into the color of the bands and into the chart background during compression periods. The information panel presents the state in text, along with the volatility percentage, the percentage position of price within each envelope and the squeeze bar counter.



Bollinger Bands change color according to the dominant state: green in Trend Up, red in Trend Down, neutral gray in Range, and bluish in Squeeze. The basis line follows the same color code with a thicker stroke.

Section 4 — Technical Foundation: Bollinger Bands, Donchian and BBWP

Bollinger Bands

Bollinger Bands are a statistical envelope developed by John Bollinger in the 1980s. They consist of a central line, which is a simple moving average of the close over N periods (default 20), and two bands placed above and below the central line at a distance equivalent to K standard deviations of price relative to that mean (default K = 2).

The classical interpretation is that in a market with normal statistical behavior, approximately 95% of closes occur between the bands. When price touches or exceeds a band, it is not by itself a directional signal, but it indicates a statistically significant deviation worth contextual attention.

Donchian Channels

Donchian Channels are a range envelope introduced by Richard Donchian. The upper band is the maximum of the last N candles; the lower band is the minimum. Edo Bands Fusion allows two modes:

- **Wick:** takes high/low of each candle. The classical reading.
- **Body:** takes max(open, close) and min(open, close) — body extremes. Produces a cleaner envelope, less sensitive to wicks.

The default mode is Body because it produces more structural breakouts less sensitive to noise from individual wicks.

BBWP — Bollinger Band Width Percentile

BBWP does not compute the absolute width of the Bollinger Bands but its percentile position within its own history. The formula is:

- Current band width = (upper band – lower band) / basis line × 100
- BBWP = percentile_rank(current width, lookback) — returns a value between 0 and 100.

A BBWP of 10 indicates that the current volatility is higher than only 10% of the history — the market is compressed. A BBWP of 90 indicates that the current volatility is higher than 90% of the history — the market is in expansion. The default squeeze threshold is 20% and the expansion threshold is 80%, both configurable.

Section 5 — Indicator Structure

Edo Bands Fusion is made up of five synchronized visual blocks:

1. **Bollinger Bands:** basis line + upper band + lower band + fill colored by dominant state.
2. **Donchian Channels:** upper band in red, lower band in green, optionally the gray middle line.
3. **Squeeze background:** when BBWP falls below the squeeze threshold, the chart is painted with a faint bluish background to visually highlight the compression.
4. **Breakout markers:** green and red triangles at the base/abovebar of price when close exceeds the Donchian extreme for the first time.
5. **Information panel:** 2×6 table with current state, volatility percentage, BB %B, Donchian %, squeeze counter and indicator name.

Coordination between layers. The color of the Bollinger Bands is not fixed: it updates bar by bar according to the state computed by the classification logic. It is the same information that appears in the panel, synchronized with the chart.

Section 6 — Bollinger Bands Layer

The Bollinger Bands layer provides the statistical framing of price. Four visual elements:

Basis line

Simple moving average of close over 20 periods by default. Plotted with width 2 and color coordinated with the state. It is the central reference of price.

Upper band and lower band

Basis line \pm 2 standard deviations of close by default. Plotted with width 1 and coordinated color, slightly transparent.

Colored fill

The area between the two bands is filled with the state color and adjustable opacity (85% by default). This makes the current market regime immediately identifiable at a glance without needing to read the panel.

Available inputs

- **BB Length:** basis moving average length. Default 20.
- **BB StdDev Multiplier:** number of standard deviations for the bands. Default 2.0.
- **BB Source:** calculation price. Default close.
- **Show Bollinger Bands:** global visibility of the block.



Bollinger Bands reflect the dominant regime. In Trend Up, green accompanies the upward expansion; when price enters compression, the fill desaturates toward neutral gray.

Section 7 — Donchian Channels Layer

Donchian Channels answer a different question: has price made a new high or a new low relative to the last N candles? This reading is simpler than Bollinger but also more structural — a close above the upper Donchian is, by definition, the highest close of the chosen period.

Upper band and lower band

By default, computed over 20 periods. The upper band is the maximum (high or maximum close in Body mode) of those 20 candles; the lower band is the minimum. Plotted as lines with linebr style (stepped) to visualize discrete transitions — Donchian only changes when a new extreme appears.

Middle line (optional)

$(\text{upper band} + \text{lower band}) / 2$. Hidden by default. Useful when the operator uses it as dynamic stop reference.

Body vs Wick mode

Body mode (default) ignores wicks and works with the candle body. Results in a cleaner envelope and more reliable breakouts. Wick mode is classical and also reacts to wicks — useful in assets where wicks are operationally relevant (for example, actual stop loss levels).

Available inputs

- **Donchian Length:** calculation window. Default 20.
- **Donchian Mode:** Body / Wick. Default Body.
- **Show Donchian Channels:** global visibility of the block.
- **Show Donchian Basis:** visibility of the middle line.

Section 8 — Volatility Percentile Layer (BBWP)

BBWP is the relative volatility layer of the indicator. It does not measure how much price moves in absolute terms but how much it moves relative to what the asset has been moving in its recent history.

Calculation

On each bar, the relative width of the Bollinger Bands is first computed as $(\text{upper_band} - \text{lower_band}) / \text{basis_line} \times 100$. Then a percentile rank function is applied over the last 252 periods by default (approximately one year of daily sessions). The result is a value between 0 and 100 indicating at which point of the history the current volatility stands.

Thresholds

- **Squeeze Threshold (default 20%):** below this value the market is compressed. Visually, the chart background is painted in faint blue.
- **Expansion Threshold (default 80%):** above this value the market is in volatility expansion — moves are larger than 80% of the history.

Why it matters

BBWP is one of the few indicators that makes sense to read in absolute terms comparable across assets. A BBWP of 10 means the same in NBIS as in BTC or in EURUSD: the market is compressed relative to its own history. This makes it especially useful for scanning watchlists and identifying candidates for imminent breakout.



When BBWP falls below the 20% threshold, the chart is painted with a faint bluish background. That visualization allows identifying at a glance compression periods that typically precede wide moves.

Section 9 — State Classification

Edo Bands Fusion classifies each bar into one of six states according to a priority hierarchy. The assignment is made in this order:

1. **Squeeze** — BBWP below the squeeze threshold. Takes priority over any other state.
2. **Expansion Up** — close exceeds the upper Donchian band of the previous period.
3. **Expansion Down** — close falls below the lower Donchian band of the previous period.
4. **Trend Up** — price is above the Bollinger basis line AND the basis line has positive slope relative to 5 bars ago.
5. **Trend Down** — price is below the Bollinger basis line AND the basis line has negative slope relative to 5 bars ago.
6. **Range** — none of the previous conditions are met. Default state when the market shows no clear direction.

Color codes by state

State	Color	Operational interpretation
Squeeze	Neutral blue	Volatility compression — watch for imminent breakout
Expansion Up	Bull green	Bullish breakout of the Donchian extreme
Expansion Down	Bear red	Bearish breakout of the Donchian extreme
Trend Up	Bull green	Confirmed uptrend by bias + slope
Trend Down	Bear red	Confirmed downtrend by bias + slope
Range	Neutral gray	No clear direction — wait for definition

The assignment is computed bar by bar and the result is reflected simultaneously in the band color, in the "State" cell of the panel and in the transition log if used along with alerts.

Section 10 — Donchian Breakout Markers

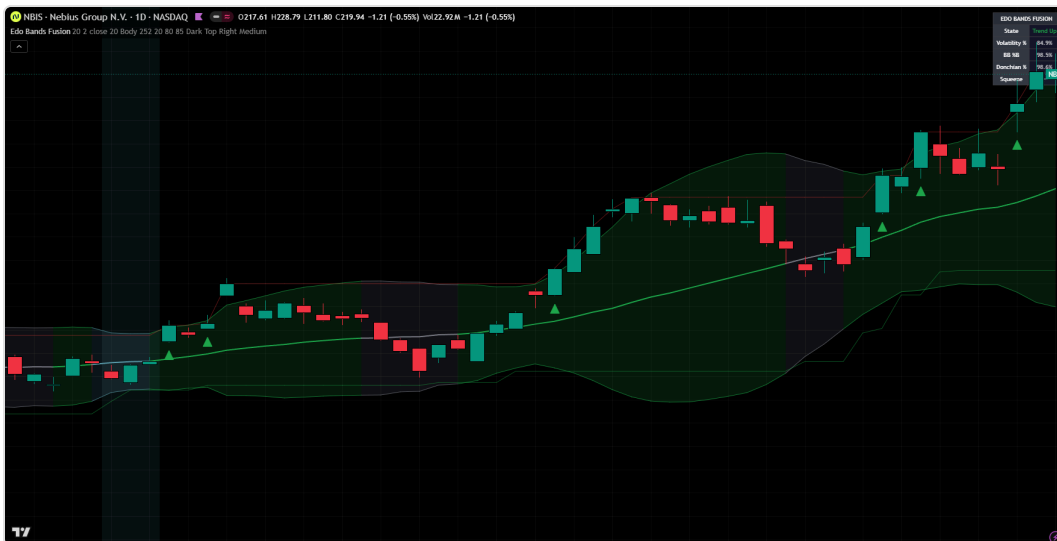
The indicator visually highlights the first confirmed breakouts of the Donchian Channels. The logic is deliberately conservative: only the FIRST candle in which the close exceeds the extreme is marked, not the following ones. This avoids a constellation of consecutive markers during a sustained trend.

Bull Breakout

Green triangle pointing upward, plotted below the candle (`location.belowbar`). It fires when the close first closes above the upper Donchian band of the previous period.

Bear Breakout

Red triangle pointing downward, plotted above the candle (`location.abovebar`). It fires when the close first closes below the lower Donchian band of the previous period.



Green triangle marks the first breakout of the upper Donchian. The Bollinger band is simultaneously colored in green of Expansion Up, making the regime change visually clear.

Associated input

- **Show Donchian Breakout Markers:** can be toggled on/off according to visual preference. Active by default.

Operational treatment. Breakout markers are not entry signals. They are confirmations that the asset has broken its recent range. The operational decision depends on context: direction of the asset in higher timeframes, structure of the previous range (width, duration), and price behavior on the breakout candle itself.

Section 11 — Information Panel

The panel offers the quantitative reading of the indicator in a compact 2-column 6-row table:



Information panel in upper right corner. Shows current state, volatility percentile, percentage position of price in Bollinger and Donchian, and counter of bars in compression when applicable.

Panel rows

Row	Meaning
EDO BANDS FUSION	Panel header.
State	Current state with its associated color.
Volatility %	BBWP — percentile rank of band width. 0% = minimum historical volatility, 100% = maximum.
BB %B	Percentage position of price within the Bollinger Bands. 0% at lower band, 50% at basis line, 100% at upper band.
Donchian %	Percentage position of price within the Donchian Channel.
Squeeze	Counter of consecutive bars in squeeze state. Shows "—" when there is no compression.

Position and size

The panel is positionable in any of the four corners of the chart and has two sizes (Small / Medium). It can be hidden completely from the inputs.

Section 12 — Settings and Customization

All relevant parameters are exposed in the Inputs tab of TradingView and grouped by functional block. Below the most relevant with their default values:

Bollinger Bands block

- BB Length: 20
- BB StdDev Multiplier: 2.0
- BB Source: close
- Show Bollinger Bands: enabled

Donchian Channels block

- Donchian Length: 20
- Donchian Mode: Body
- Show Donchian Channels: enabled
- Show Donchian Basis: disabled

Volatility State block

- Volatility Lookback: 252 bars
- Squeeze Threshold: 20%
- Expansion Threshold: 80%
- Highlight Squeeze Background: enabled

Style block

- Bull Color: green (#1FA64B)
- Bear Color: red (#C73535)
- Neutral / Squeeze Color: blue (#5B9FAD)
- BB Fill Opacity: 85
- Theme: Dark / Light

Markers block

- Show Donchian Breakout Markers: enabled

Panel block

- Show Panel: enabled
- Panel Position: Top Right
- Panel Size: Medium

Section 13 — Alerts

Edo Bands Fusion includes six predefined alerts that are configured from the TradingView alerts menu by selecting the indicator as condition:

Alert	Trigger
Squeeze Started	BBWP crosses below the squeeze threshold for the first time after a period of higher volatility.
Squeeze Released	BBWP recovers the normal zone after a period in squeeze. Often precedes a wide move.
Donchian Breakout Up	First close above the upper Donchian band of the previous period.
Donchian Breakout Down	First close below the lower Donchian band of the previous period.
Price Crossed BB Upper	Price crosses the upper Bollinger band — significant statistical deviation to the upside.
Price Crossed BB Lower	Price crosses the lower Bollinger band — significant statistical deviation to the downside.

Operational suggestion. The most profitable alerts are usually Squeeze Released and the two Donchian Breakout. Squeeze Started is useful as a pre-warning to prepare trading plans. Bollinger cross alerts can be noisy in highly volatile assets — combining them with a higher-timeframe filter reduces false positives.

Section 14 — Combined Reading and Patterns

Squeeze → Expansion

The most identifiable pattern. A series of bars in Squeeze state (BBWP < 20%, bluish background, narrow bands, panel showing increasing counter) followed by an abrupt change to Expansion Up or Expansion Down with its Donchian marker. This pattern works especially well on higher timeframes (4H and D) where compression collects more information.

Persistent Trend

Price remains consistently above (or below) the Bollinger basis line for many consecutive bars, with BBWP in normal values (40-70%) and without ever touching the opposite extreme. Indicates a healthy trend that does not require immediate action — wait for the first bar in Range state to evaluate whether the trend is exhausting.

Extreme Bollinger without Donchian breakout

Close breaks above the upper Bollinger band but is still within the Donchian range. Indicates a strong impulse that has not yet generated a new absolute extreme. Operationally, one can wait for Donchian breakout confirmation or use it as a momentum warning without defining entry yet.

Donchian breakout without Bollinger extreme

Close exceeds the upper Donchian but the Bollinger Bands do not show statistical overextension. It is the classical pattern of clean structural breakout — price has made a new range high without overextending much relative to its mean. It is usually a higher-quality entry than breakouts with overextension.

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State	Trend Up
Volatility %	22.2%
BB %B	69.2%
Donchian %	73%
Squeeze	—

Panel reading. State indicates the regime, Volatility % the current percentile, BB %B the position in Bollinger, Donchian % the position in the range, and Squeeze the counter when applicable.



Wide view with the three layers working together: Bollinger Bands color-coded by state, enveloping Donchian Channels and bluish background on compression periods compose a coherent reading of the asset regime.

Section 15 — Access and License

Edo Bands Fusion is a free-access indicator within the Edolab Markets ecosystem. It is publicly available on TradingView and can be added directly to the chart from the author's public library.

The indicator source code is intellectual property of Edolab Markets. Any modification, redistribution or commercial use requires express authorization. Individual and educational use is free without restrictions.

Section 16 — Risk Warning

The content of this manual and the Edo Bands Fusion indicator itself are technical analysis tools for educational and informational purposes. They do not constitute an investment recommendation, an offer to buy or sell financial instruments, nor personalized financial advice.

Trading in financial markets carries the risk of total or partial loss of invested capital. Past returns do not guarantee future returns. Each user is responsible for their own investment decisions and must assume the economic consequences thereof.

Edolab Markets is not responsible for losses arising from the use of the indicator. Before trading with real capital, it is recommended to test the tools in a demo account and to receive adequate training in risk management.

Section 17 — Conclusion

Edo Bands Fusion solves on a single surface the three structural questions a trader needs to answer before trading: where is price relative to its statistical mean, where is it relative to recent range extremes, and at which point of the volatility cycle the asset stands. The integration of Bollinger Bands, Donchian Channels and BBWP in a single coordinated panel allows reading the market regime at a glance and dedicating the rest of attention to the specific operational decision.

The indicator works as a base for any system that needs to contextualize entries in daily or weekly timeframes. Its reading is stable, its signals are discrete and its panel summarizes in five rows what is traditionally obtained from three separate indicators.

Like every Edolab tool, it is designed to integrate into a broader system, not to replace it. Its precision depends, as always, on the operator's discipline.



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