

Inside Bar Breakout

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Price-Action Breakout	M15 / H1	www.algotbot.live

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Overview

Inside Bar Breakout is a pure price-action Expert Advisor that trades the classic two-bar *inside-bar compression* pattern — with no indicators of any kind (no moving average, RSI, ATR, or anything else). It reads only the raw open, high, low, and close of the two most-recently closed candles, looking for a strong momentum thrust followed by a tight, coiled pause.

When that compression is detected, the EA brackets the structure with a one-cancels-the-other (OCO) pair of pending **stop orders** — one above the pattern and one below — and lets the market decide the direction. Whichever side breaks out first triggers a position; the opposite resting order is cancelled the instant a fill occurs. If neither side breaks within a configurable window, both orders are pulled and the EA hunts for a fresh setup.

Because every price level — the breakout offset, the stop buffer, and the target distance — is expressed as a *fraction of the mother bar's range*, the strategy scales automatically to any symbol, timeframe, or volatility regime without ever needing to know the instrument's point size. It is built for momentum-prone instruments such as **XAUUSD** or **GBPJPY** on the **M15** or **H1** timeframe, where a single coiled bar can resolve into a sustained run.

How It Works

The Pattern

On every newly-closed bar the EA inspects the two most-recently closed candles and tests them against a strict definition of a coil:

- **Mother bar** (the older of the two) — a strong momentum candle. Its body ($|Close - Open|$) must be a large fraction of its full high-to-low range, governed by `MinMotherBodyFrac`. A large body means price travelled with conviction rather than chopping.
- **Inside bar** (the most recent candle) — must be fully *contained* inside the mother bar (its high is below the mother's high *and* its low is above the mother's low) *and tight* (its range is no more than `InsideMaxFrac` of the mother's range).

Together these read as a thrust followed by a coiled pause — energy stored for a continuation or expansion move in *either* direction.

The Entry

Once a qualifying inside bar closes, the EA brackets the mother bar with an OCO pair of pending **stop** orders (it never enters at market):

- **Long** — a `BUY STOP` placed a buffer *above* the mother bar's high.
- **Short** — a `SELL STOP` placed a buffer *below* the mother bar's low.

The buffer is `BufferFrac` × the mother bar's range. To keep each pending order valid, a side is only placed if the market has not already broken into it (a buy stop must sit strictly above the current ask; a sell stop strictly below the current bid). The moment one side fills, the opposite resting order is immediately cancelled — true one-cancels-the-other behaviour.

Note: The EA never stacks brackets. While a position is open or a bracket is resting, no new orders are placed — it manages exactly one setup at a time.

Stop Loss & Take Profit

The protective stop sits a buffer beyond the *opposite* extreme of the mother bar — the far wall of the coil. A filled long is stopped below the mother low; a filled short above the mother high. The structural risk distance is therefore:

$risk = motherRange + 2 \times buffer$ (the full coil plus both buffers)

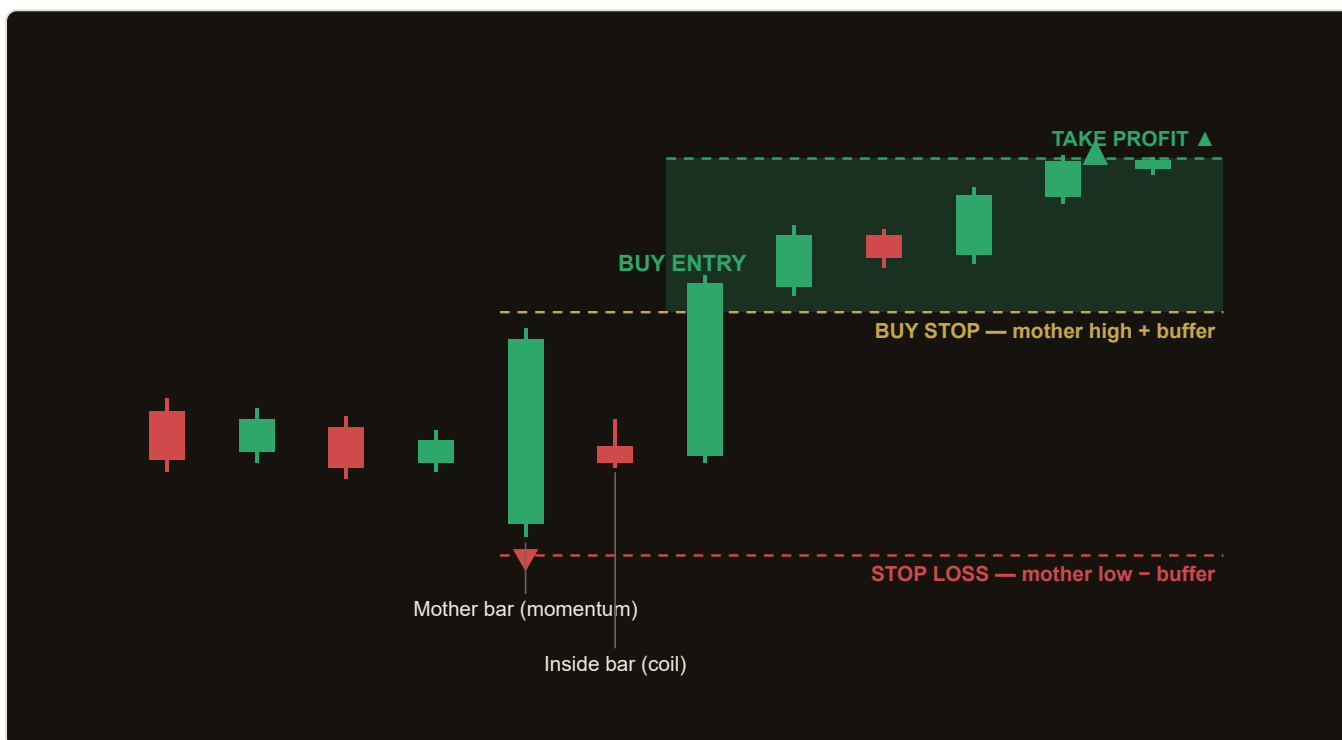
The take-profit is a fixed reward-to-risk multiple of that distance, set by `RewardRatio`. With the default `RewardRatio = 1.50`, the target sits 1.5× the structural stop distance away from entry.

Order Lifecycle & Expiry

A resting bracket is given a limited number of bars to trigger. The `ExpiryBars` counter ages on each new closed bar; if neither side has filled by the time the count is reached, both orders are cancelled and the EA returns to scanning for a fresh coil. This ensures the strategy only ever pays for breakouts that actually happen, rather than leaving stale orders in the market.

Strategy in Action

The illustration below shows an example of how the strategy identifies a setup and triggers its entry and exit. This is a simplified, illustrative example for educational purposes — not real market data.



Illustrative example only. Actual market behaviour varies.

Parameters

Parameter	Default	Description
MinMotherBodyFrac	0.55	Minimum body-to-range ratio of the mother bar — how much momentum the thrust must show. Range 0.30–0.90, step 0.05.
InsideMaxFrac	0.70	Inside bar range as a maximum fraction of the mother bar's range (coil tightness). Range 0.30–1.00, step 0.05.
BufferFrac	0.10	Breakout offset and stop buffer beyond the mother bar, expressed as a fraction of its range. Range 0.00–0.50, step 0.05.
RewardRatio	1.50	Take-profit distance as a multiple of the structural stop distance (reward-to-risk). Range 0.50–5.00, step 0.25.
ExpiryBars	3	Cancel an un-triggered OCO bracket after this many bars. Range 1–10, step 1.
Lots	0.10	Trade volume in lots. Range 0.01–1.00, step 0.05.
Magic	5207	Magic number identifying this EA's orders and positions. Range 0–9,999,999, step 1.

Recommended Settings

The strategy is designed for momentum-prone instruments where a coiled bar can resolve into a sustained directional run. Because all levels scale to the mother bar's range, the defaults are a sound starting point across symbols.

- **Symbols:** XAUUSD (Gold) or GBPJPY — instruments with clean expansion moves after compression.
- **Timeframe:** M15 or H1.
- **Pattern strictness:** Keep `MinMotherBodyFrac` at 0.55 and `InsideMaxFrac` at 0.70 for a balanced trade frequency. Raising the body fraction and lowering the inside fraction yields fewer but cleaner coils.
- **Buffer:** A `BufferFrac` of 0.10 keeps the entry close to the structure while avoiding the noise immediately at the high/low. Increase it in choppier conditions to reduce false breaks.
- **Reward:** `RewardRatio = 1.50` targets one-and-a-half times the structural risk. Lower it for a higher hit-rate, raise it to let winners run.

Example setup

On GBPJPY H1, a strong bullish hour (body \approx 60% of its range) is followed by a tight inside hour spanning only half the mother's range. The EA places a BUY STOP a buffer above the mother high and a SELL STOP a buffer below the mother low. The next hour breaks upward, filling the buy stop; the sell stop is cancelled instantly, the stop sits below the mother low, and the target is set $1.5\times$ the coil distance above entry.

Tip: Use a distinct `Magic` number for each chart or symbol so the EA tracks its own orders independently when running multiple instances.

How to Install on MetaTrader 5

- 1 Copy `InsideBarBreakout.ex5` to your MT5 `MQL5\Experts\` folder
- 2 Restart MetaTrader 5 and refresh the Navigator panel
- 3 Drag the EA onto a chart matching the recommended symbol and timeframe
- 4 Configure the input parameters and click **OK**
- 5 Enable **Algo Trading** in the MT5 toolbar

Risk Warning

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