

Momentum Regime Continuation

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Momentum / Trend Continuation

TIMEFRAME

H1 – H4

WEBSITE

www.algotbot.live

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Overview

Momentum Regime Continuation is a trend-following Expert Advisor that aims to join an existing directional move only when momentum is genuinely accelerating in that direction. Rather than reacting to a single indicator, it demands agreement from **three independent confirmations** before committing capital, which is what keeps its signal count low and filters out much of the noise that traps momentum systems in choppy markets.

The three confirmations are:

1. **Trend regime** — price is on the correct side of an Exponential Moving Average (EMA) that is itself sloping in the trade direction.
2. **Momentum trigger** — the Rate-of-Change (ROC) oscillator has pushed beyond a configurable threshold.
3. **Acceleration** — ROC is still expanding bar-over-bar, meaning the move is strengthening rather than fading.

Risk is defined at entry with an ATR-based stop and a reward-multiple target, and an optional ATR trailing stop can be used to lock in profit as a move extends. The EA operates entirely on **closed bars** and runs on whatever symbol and timeframe the chart is attached to.

How It Works

Signal evaluation cadence

The entry decision runs **once per newly-closed bar** via a new-bar gate, using only fully-closed price data (shift 1 and older). This avoids acting on an unfinished, repainting bar. Trailing-stop management, by contrast, runs on **every tick** so that protective stops can be tightened using the freshest available price.

Entry logic — three confirmations

A rolling window of closed highs, lows, and closes is maintained and fed to the EMA, ROC, and ATR calculations. A **long** setup requires all of the following on the last closed bar:

- **Trend:** `close > EMA` and the EMA is rising (`EMA now > EMA three bars ago`).
- **Momentum:** `ROC > RocThreshold` .
- **Acceleration:** `ROC(now) > ROC(previous bar)` .

A **short** setup is the exact mirror: price below a falling EMA, ROC below the negative threshold, and ROC still contracting (more negative) bar-over-bar. ROC is measured in percent over the `RocPeriod` lookback:

$$\text{ROC} = (\text{close}[\text{now}] - \text{close}[\text{now} - \text{RocPeriod}]) / \text{close}[\text{now} - \text{RocPeriod}] \times 100$$

Only one position per magic number is allowed at a time — if a trade for this EA is already open, no new entry is taken.

Exit logic — stop, target & trailing

When a signal fires, the EA reads the current ATR and sizes both the stop and target from it:

- **Stop loss:** placed `AtrStopMult × ATR` away from entry (below for longs, above for shorts).
- **Take profit:** placed `AtrStopMult × RewardRatio × ATR` away from entry — i.e. a fixed reward-to-risk multiple of the stop distance.

Worked example (defaults)

With `AtrStopMult = 2.0` and `RewardRatio = 1.5` , a long entry places the stop at `2.0 × ATR` below price and the target at `2.0 × 1.5 × ATR = 3.0 × ATR` above price — risking one unit to make one and a half.

If `TrailAtrMult > 0` , an ATR trailing stop is active. For a long, the desired stop is `Bid - TrailAtrMult × ATR` ; it is only ever applied when it is **tighter** than the current stop (and still below price), so the stop can march up toward price but never loosens. Shorts trail symmetrically from the Ask. Setting `TrailAtrMult = 0` disables trailing and leaves the fixed stop/target to manage the trade.

Note: The trailing stop reuses the ATR value captured at the most recent signal evaluation. This keeps trailing behaviour stable between bar closes while still adapting to volatility as new bars form.

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
EmPeriod	50	EMA period defining the trend regime. Range 20–200, step 10. Higher values track a slower, more established trend.
RocPeriod	10	Rate-of-Change lookback in bars. Range 5–30, step 1. Shorter values react faster; longer values smooth the momentum reading.
RocThreshold	0.15	ROC trigger threshold in percent. Range 0.05–1.00, step 0.05. A trade requires ROC beyond \pm this level. Higher values demand stronger momentum.
AtrPeriod	14	ATR period used for volatility-based risk sizing. Range 7–30, step 1.
AtrStopMult	2.0	ATR multiple for the stop-loss distance from entry. Range 1.0–4.0, step 0.5.
RewardRatio	1.5	Reward-to-risk ratio for the take-profit. Range 1.0–3.0, step 0.5. Target distance = $\text{AtrStopMult} \times \text{RewardRatio} \times \text{ATR}$.
TrailAtrMult	2.0	ATR multiple for the trailing stop. Range 0.0–4.0, step 0.5. Set to 0 to disable trailing.
Lots	0.10	Fixed lot size per trade. Range 0.01–1.0, step 0.05.
Magic	8801	Magic number identifying this EA's positions. Ensures the one-position-at-a-time rule and trailing apply only to its own trades.

Recommended Settings

The EA is symbol- and timeframe-agnostic, but its momentum-continuation logic tends to be most robust on liquid instruments and intraday-to-swing timeframes where trends have room to develop.

SUGGESTED STARTING POINT

- **Instruments:** major FX pairs (EUR/USD, GBP/USD, USD/JPY) or liquid indices with clear directional regimes.
- **Timeframe:** H1 to H4 — long enough for the EMA slope and ROC acceleration filters to be meaningful, short enough to produce a reasonable trade count.
- **Defaults:** the shipped defaults (EMA 50, ROC 10 / 0.15, ATR 14, 2.0 stop, 1.5 reward, 2.0 trail) are a sensible baseline before any optimisation.

Tuning tips: Raise `RocThreshold` to demand stronger momentum and reduce false starts in ranging conditions; lower it for more frequent signals. Increase `AtrStopMult` to give trades more room in volatile markets. A larger `TrailAtrMult` trails more loosely (holds trends longer); a smaller one locks profit faster.

Always validate before going live. Backtest and forward-test any parameter set on your specific broker, symbol, and timeframe before committing real capital. Spread, slippage, and swap conditions vary between brokers and can materially affect results.

How to Install on MetaTrader 5

- 1 Copy `MomentumRegimeContinuation.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

Trading foreign exchange, CFDs, and other leveraged financial instruments involves substantial risk of loss and is not suitable for all investors. The strategies and tools described in this document are provided for **educational purposes only** and do not constitute financial advice, investment recommendations, or solicitation to trade. Always consult a qualified financial adviser before making trading decisions. Past backtest performance is not indicative of future results.