Algobot
Maximize Your Profits

Deviation Reset Continuation

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend Continuation	M30 – H4	www.algobot.live

⚠ **Important Disclaimer** This document is for educational and informational purposes only. It does not constitute financial or investment advice. Trading forex, CFDs, and other leveraged instruments involves substantial risk of loss and is not suitable for all investors. Past backtest performance does not guarantee future results. Never trade with capital you cannot afford to lose.

Overview

Deviation Reset Continuation is a trend-continuation Expert Advisor. Rather than fading extended moves, it trades *with* the prevailing trend: it waits for an established trend to pause and pull back toward its own moving-average baseline, then enters as the trend resumes.

The core gauge is a volatility-normalized deviation of price from an EMA baseline, which the strategy calls the **stretch**:

```
stretch = (close − EMA(BasisPeriod)) / ATR(AtrPeriod)
```

The stretch measures how many ATRs price is trading away from its baseline. Because it is expressed in ATR units, the same thresholds behave consistently across any symbol, price level, and timeframe — a built-in guard against curve-fitting to one instrument. Healthy trends do not travel in a straight line: they extend, pull back toward the baseline (the stretch “resets” toward zero), then resume. This EA buys the reset and rides the resumption, always in the direction the baseline is already sloping.

Design intent. The strategy is timeframe-agnostic — every calculation uses the chart's primary timeframe — but it was designed with trending FX majors, metals, and indices on **M30 to H4** in mind. Nothing about the symbol or timeframe is hardcoded, so it can be optimized on any instrument.

How It Works

The EA operates as a small, non-repainting state machine that evaluates only **closed bars**. On each new bar it records the just-completed bar, recomputes the EMA baseline and ATR, and derives the stretch. All decisions are made on finished data, so signals never repaint. Long and short rules are fully symmetric.

1. Regime — is there a trend to follow?

The EMA baseline must be sloping. The slope is measured over `SlopeLookback` bars:

```
slope = EMA(now) − EMA(SlopeLookback bars ago)
```

- **slope > 0** → up regime → only long setups are considered.
- **slope < 0** → down regime → only short setups are considered.
- **flat / no slope** → no trades.

2. Arm — wait for the reset toward baseline

While the regime holds, the EA waits for the stretch to pull back toward the mean. This marks a genuine dip (in an uptrend) or rally (in a downtrend) back toward the baseline:

- **Long:** arm when `stretch ≤ PullbackDepth`.
- **Short:** arm when `stretch ≥ −PullbackDepth`.

Once armed, the setup remains active while it waits for confirmation of resumption.

3. Resume — enter as the trend re-extends

After arming, the EA enters when the trend visibly resumes on a closed bar. Three conditions must all be true:

- **Long:** the bar closes bullish (`close > open`), closes above the *prior bar's high*, and the stretch climbs back to `≥ ResumeLevel`.
- **Short:** the bar closes bearish (`close < open`), closes below the *prior bar's low*, and the stretch falls back to `≤ −ResumeLevel`.

If the regime flips against the setup, or `MaxWaitBars` pass without a resumption, the armed setup is abandoned and the EA returns to scanning. A freshly armed setup must always wait for a genuinely later bar before it can trigger.

Worked example — long side

On EUR/USD H1 the 34-EMA is sloping up (up regime). Price surges to `+1.4` ATRs above the baseline, then pulls back over several bars until the stretch drops to `+0.25` — at or below the default `PullbackDepth` of 0.30, so the setup *arms long*. Two bars later a strong bullish candle closes above the prior bar's high and the stretch pushes back up to `+0.7`, beyond the `ResumeLevel` of 0.60. The EA buys the resumption, places an ATR stop and a 2R take-profit, and begins trailing.

Exit logic — stop, target, and trail

Every trade is opened with a hard stop and take-profit, then actively managed by a trailing stop:

- **Initial stop loss:** `StopAtrMult × ATR` away from entry (default 2.0 × ATR).
- **Take-profit:** a reward-to-risk multiple of the stop distance, `RewardRiskRatio × (StopAtrMult × ATR)` (default 2R).
- **Chandelier-style ATR trailing stop:** the stop is re-anchored at `TrailAtrMult × ATR` from current price and only ever ratchets in the trade's favour — it never loosens. This locks in open profit and cuts givebacks.

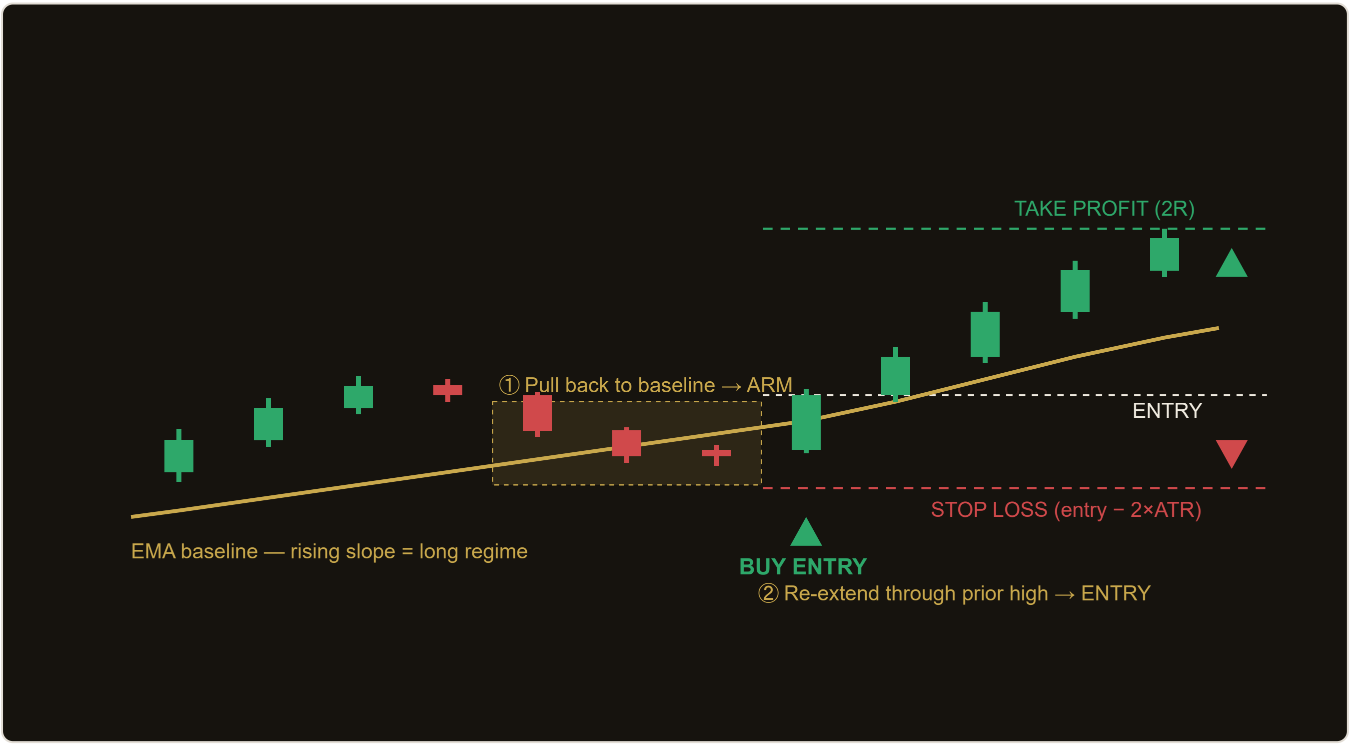
Position management & sizing

- **One position per magic** — no averaging, no grid, no pyramiding. While a position is open the EA only manages the trailing stop.
- **Fixed-fractional sizing** — the base lot scales with account balance relative to the reference balance recorded at start-up, then is clamped to a hard ceiling:

```
volume = round(BaseLots × (Balance / RefBalance), 2)
volume = clamp(volume, 0.01, MaxLots)
```

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

All inputs below are exposed in the EA's settings dialog. Defaults, and the optimizer ranges they were designed to be tested over, are shown for each.

Parameter	Default	Description
BasisPeriod	`34`	Period of the EMA baseline that the deviation is measured from. Range 10–100, step 2.
AtrPeriod	`14`	ATR period — serves as both the deviation normalizer and the risk unit for stops. Range 7–30, step 1.
SlopeLookback	`5`	Number of bars over which the baseline slope (the trend regime) is measured. Range 2–20, step 1.
PullbackDepth	`0.30`	Arm the setup once the stretch pulls back to at/below this value, in ATRs. Range −0.50 to 1.50, step 0.10.
ResumeLevel	`0.60`	Resumption trigger — the stretch must re-extend beyond this value, in ATRs, to enter. Range 0.00–2.00, step 0.10.
MaxWaitBars	`6`	How many bars the EA keeps waiting for a resumption after arming before abandoning the setup. Range 2–20, step 1.
StopAtrMult	`2.0`	Initial stop-loss distance as a multiple of ATR. Range 1.0–4.0, step 0.25.
RewardRiskRatio	`2.0`	Take-profit expressed as a reward:risk multiple of the stop distance. Range 1.0–5.0, step 0.25.
TrailAtrMult	`2.5`	ATR multiple for the Chandelier-style trailing stop (ratchets only in the trade's favour). Range 1.0–5.0, step 0.25.
BaseLots	`0.10`	Fixed-fractional base lot, scaled by account balance at trade time. Range 0.01–1.00, step 0.01.
MaxLots	`2.00`	Hard ceiling on position size after balance scaling. Range 0.10–10.0, step 0.10.
Magic	`517033`	Magic number identifying this EA's positions. One position per magic. Range 0–9,999,999, step 1.

Recommended Settings

The defaults are a balanced starting point for trending instruments on higher intraday timeframes. Adjust to match the character of your market and account.

- **Instruments:** trending FX majors (e.g. EUR/USD, GBP/USD), metals (XAU/USD), and major indices tend to suit continuation logic best.
- **Timeframe:** M30 to H4. Higher timeframes produce fewer, cleaner regimes and less noise in the slope filter.

- **Regime sensitivity:** raise `BasisPeriod` / `SlopeLookback` for slower, more selective trends; lower them to react to shorter swings.
- **Entry selectivity:** a deeper `PullbackDepth` and higher `ResumeLevel` demand a cleaner reset and a stronger resumption — fewer but higher-quality entries.
- **Risk:** keep `StopAtrMult` wide enough to survive normal noise; `RewardRiskRatio` of 2.0 pairs a modest win rate with positive expectancy. `TrailAtrMult` above the stop lets winners breathe before ratcheting.

> **Tip.** Because the stretch is ATR-normalized, thresholds like `PullbackDepth` and `ResumeLevel` transfer across symbols and timeframes. Optimize them on one instrument, then sanity-check on a related one — if the values hold up, you have a robust regime rather than a curve-fit.

> **Always validate before going live.** Backtest across multiple market conditions and forward-test on a demo account before committing real capital. Fixed-fractional sizing grows position size as the account grows — confirm the `MaxLots` ceiling is appropriate for your risk tolerance and broker.

How to Install on MetaTrader 5

1. Copy `DeviationResetContinuation.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.