

# Momentum Pivot Confluence

Expert Advisor Documentation

## PLATFORM

MetaTrader 5 (MT5)

## TYPE

Momentum Breakout

## TIMEFRAME

H1 (recommended)

## WEBSITE

[www.algotbot.live](http://www.algotbot.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

**Momentum Pivot Confluence** is a breakout Expert Advisor that combines two classic, complementary ideas: rolling **floor pivot levels** and a **directional momentum filter**. It looks for moments when price decisively closes through a pivot resistance (R1) or support (S1) line — but it only acts when that break is backed by genuine momentum, not a low-conviction poke that quickly fades.

The EA computes the pivot levels itself from a rolling window of recently completed bars on the chart timeframe, so it does not read any higher timeframe. Every decision is made on the close of a completed bar, which keeps signals stable and avoids reacting to intra-bar noise. When a confirmed break occurs, the EA opens a single position protected by an ATR-based stop loss and take profit, and it holds at most one trade per magic number at any time.

**Core idea.** A pivot break alone is a weak signal — price pierces these levels constantly. Requiring that the move also clears an ATR-normalised momentum threshold filters out the shallow, mean-reverting pokes and keeps only breaks that have force behind them.

# How It Works

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## 1. Rolling Floor Pivots

On each newly completed bar, the EA looks back over a window of `PivotLookback` bars (the window ends at the bar *before* the signal bar). From that window it takes the highest high, the lowest low, and the closing price of the most recent bar in the window, then derives the standard floor-trader pivots:

$$\begin{aligned} P &= (\text{High} + \text{Low} + \text{Close}) / 3 \\ R1 &= 2 \times P - \text{Low} \\ S1 &= 2 \times P - \text{High} \end{aligned}$$

Because the window *rolls* forward with every bar, the pivot levels continuously re-anchor to the most recent price structure rather than being fixed to a calendar session.

## 2. Momentum Confirmation

Momentum is measured as the change in closing price over `MomentumPeriod` bars, normalised by the current ATR so the gate adapts to volatility:

$$\text{mom} = (\text{Close}[\text{signal}] - \text{Close}[\text{signal} - \text{MomentumPeriod}]) / \text{ATR}$$

An upside break must satisfy `mom ≥ MomentumThreshold`; a downside break must satisfy `mom ≤ -MomentumThreshold`. Dividing by ATR means the same threshold value means the same thing whether the market is quiet or volatile.

## 3. Entry Rules

A trade is taken only on a completed bar when no position for this magic number is already open.

### LONG (BUY)

- The prior bar closed at or below R1 ( `prevClose ≤ R1` ), and
- The signal bar closed above R1 ( `curClose > R1` ), and
- The signal close is also above the central pivot ( `curClose > P` ), and
- Momentum confirms the break ( `mom ≥ MomentumThreshold` ).

### SHORT (SELL)

- The prior bar closed at or above S1 ( `prevClose ≥ S1` ), and
- The signal bar closed below S1 ( `curClose < S1` ), and
- The signal close is also below the central pivot ( `curClose < P` ), and
- Momentum confirms the break ( `mom ≤ -MomentumThreshold` ).

## 4. Stop Loss & Take Profit

Both protective levels are derived from the ATR at the signal bar, so they scale with current volatility:

- **Long:** Stop Loss = entry - ( `SlAtrMult` × ATR); Take Profit = entry + ( `TpAtrMult` × ATR).
- **Short:** Stop Loss = entry + ( `SlAtrMult` × ATR); Take Profit = entry - ( `TpAtrMult` × ATR).

With the defaults ( `SlAtrMult` = 1.50, `TpAtrMult` = 2.50) each trade targets a reward-to-risk ratio of roughly 1.67 : 1.

## 5. Position Management

The EA enforces a single open position per magic number. While a trade is live, no new signals are taken; once it closes (at stop, target, or manually), the EA is free to look for the next confirmed break. There is no averaging, grid, or martingale behaviour.

**One signal per bar.** The EA evaluates its rules only when a new bar opens (the previous bar has just closed). This makes its behaviour identical between live trading and the Strategy Tester and removes sensitivity to individual ticks.

## 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.*

### Reading the chart

Price consolidates just beneath the R1 resistance line. On the breakout bar it closes decisively above R1 *and* above the central pivot P, while the close-vs-close momentum clears the threshold — so the EA opens a long. The stop sits one ATR multiple below entry; the take profit sits a larger ATR multiple above, which price reaches as the move extends.

## Parameters

Parameter	Default	Description
PivotLookback	24	Number of completed bars in the rolling pivot window used to compute P, R1 and S1. Range 10–96, step 2.
MomentumPeriod	10	Lookback (in bars) for the close-vs-close momentum measurement. Range 3–30, step 1.
MomentumThreshold	0.50	ATR-normalised momentum gate a break must clear to confirm. Higher = stricter, fewer trades. Range 0.10–2.0, step 0.10.
AtrPeriod	14	ATR period used both for stop/target sizing and for normalising momentum. Range 5–30, step 1.
SIATRmult	1.50	Stop-loss distance as a multiple of ATR (entry +/- SIATRmult × ATR). Range 0.50–4.0, step 0.10.
TpATRmult	2.50	Take-profit distance as a multiple of ATR (entry +/- TpATRmult × ATR). Range 0.50–6.0, step 0.10.
Lots	0.10	Fixed trade volume in lots. Range 0.01–1.0, step 0.05.
Magic	70010	Magic number identifying this EA's trades and enforcing the one-position-at-a-time rule.

## Recommended Settings

The defaults are tuned for liquid instruments on the **H1** timeframe, where a 24-bar pivot window covers roughly one trading day of structure. Suggested starting points:

- **Symbols:** major FX pairs (e.g. EUR/USD, GBP/USD, USD/JPY) with tight, stable spreads.
- **Timeframe:** H1 to start. H4 also works well with the default lookback for slower, higher-conviction signals.

- **Momentum threshold:** keep at 0.50 initially. Raise it (e.g. 0.70–1.00) to demand stronger breaks and cut down on whipsaws; lower it for more frequent signals.
- **Risk:** begin with the default 0.10 lots on a demo account and size up only after validating behaviour on your broker's feed.

**Tuning tip.** The `MomentumThreshold` is the strategy's main quality dial. If you see too many false breakouts in the Strategy Tester, increase it before touching anything else. Re-optimize `SlAtrMult` / `TpAtrMult` only after the entry filter feels right.

**Validate before going live.** Always backtest across several years and forward-test on a demo account with your own broker before committing real capital. Spread, slippage, and execution differ between brokers and will affect results.

## How to Install on MetaTrader 5

- 1 Copy `MomentumPivotConfluence.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.