Algobot
Maximize Your Profits

Price Impact Conviction Trend

Expert Advisor Documentation

PLATFORM	TYPE	TIMEFRAME	WEBSITE
MetaTrader 5 (MT5)	Trend Continuation	Any (H1 default)	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

Price Impact Conviction Trend is a trend-continuation Expert Advisor built on the Amihud *price-impact* (illiquidity) ratio. Instead of watching raw volume, it measures how much price moves per unit of traded volume:

```
Impact = |Close − PreviousClose| / max(TickVolume, 1)
```

Impact is the *return-per-volume* — the price cost of each unit of flow. That distinction is the whole idea, and it is deliberately counter-intuitive:

- A big price move on **thin** volume produces **high impact**. The tape could not absorb real flow, so the move is a liquidity air-pocket that tends to snap back. Naive "volume-surge" systems miss this because a thin spike can still print an above-average bar count.
- A big price move on **heavy** volume produces **low impact**. Real participants transacted into the move and it barely cost them slippage per lot. That is genuine, absorbed, informed flow — the kind that **continues**.

The EA hunts the second animal: a **conviction bar** that combines a significant directional thrust, low impact for that thrust, and agreement with an EMA trend baseline. It then rides the move in the direction of the

displacement rather than fading it. Because the trigger is normalised by volume, it self-scales — the same settings read a quiet EURUSD hour and a wild XAUUSD hour on the same footing.

> **Core intuition:** Don't chase every large candle. Chase the large candle that the market *absorbed* — the one that moved a lot while costing little per unit of volume. That is conviction, not a squeeze.

How It Works

The Price-Impact Baseline

On every newly-closed bar the EA computes that bar's impact ratio and maintains a rolling average of impact over the previous `ImpactPeriod` bars (the window *behind* the trigger, excluding it). This `avgImpact` is the "normal" cost of movement for the current market and is the yardstick the conviction test uses.

Entry Logic — The Conviction Bar

A fresh entry requires all three conditions to be true on the just-closed bar (shift 1):

- **Big thrust:** `|dClose| ≥ ThrustFactor × ATR` — the bar's signed displacement is a genuine directional move, not baseline noise.
- **Low impact:** `Impact ≤ ImpactFactor × avgImpact` — that move was efficiently absorbed by volume (informed flow, not a thin air-pocket).
- **Trend agreement:** the close must be on the correct side of the `BaselinePeriod` EMA — above for longs, below for shorts, so the EA rides the prevailing trend rather than fading it.

Direction comes from the sign of the displacement, so the system is fully symmetric:

```
longSignal  = bigThrust && lowImpact && dClose > 0 && close > EMA
shortSignal = bigThrust && lowImpact && dClose < 0 && close < EMA
```

When a signal fires and no position is open, the EA checks the spread gate (skip if the current spread exceeds `MaxSpreadPoints`, when the filter is enabled) and then submits a market order at the Ask (long) or Bid (short).

Exit Logic

Only one position per magic number is held at a time. An open trade is abandoned as soon as either of the following happens on a closed bar:

- **Structure break:** price loses the EMA baseline — close below the EMA for a long, or above it for a short.
- **Opposite conviction:** a fresh conviction bar prints in the opposite direction.

Position management is evaluated *before* any new entry each bar, so the EA never stacks or reverses on the same tick.

Protective Stop & Target

Every trade is submitted with a hard ATR-based stop and target that backstop the discretionary exits:

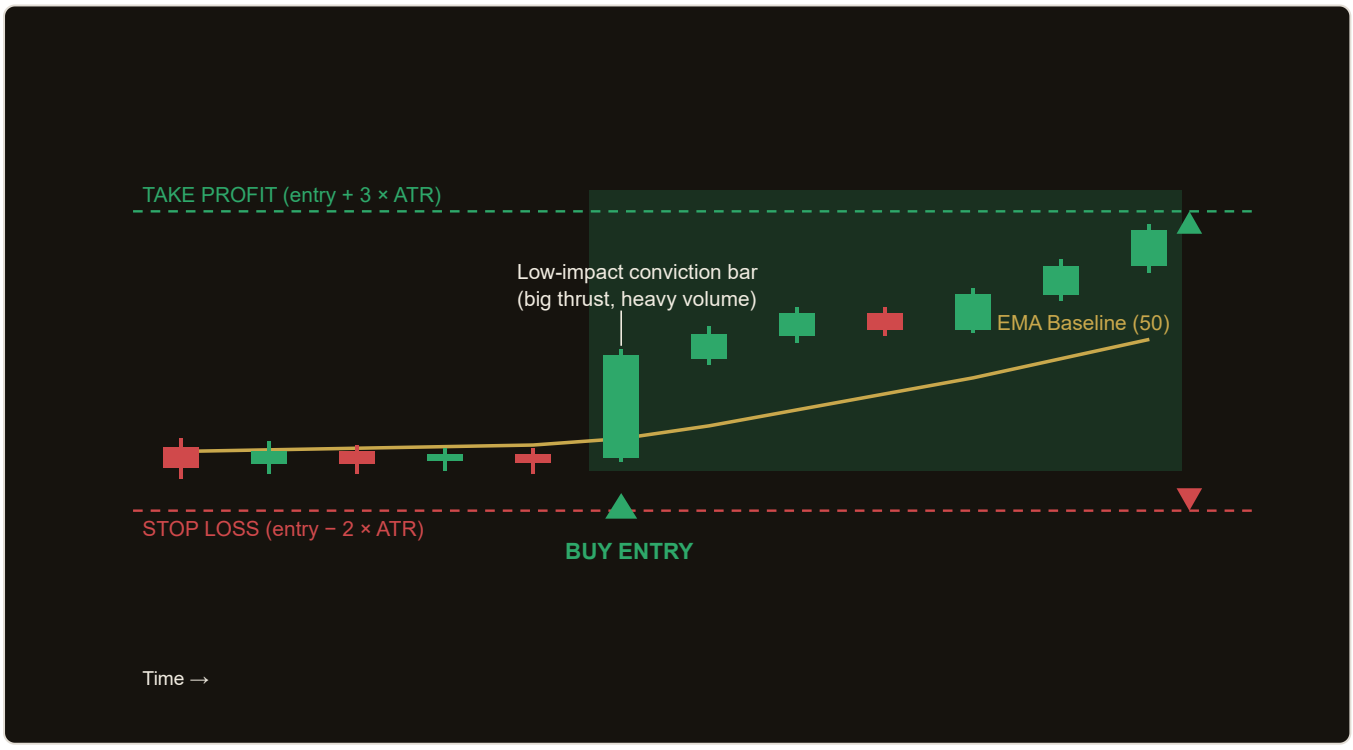
- **Stop loss:** `AtrMultSl × ATR` away from entry.
- **Take profit:** `AtrMultTp × ATR` away from entry (a wider backstop for a runaway leg).

ATR is measured with the engine's `Atr(highs, lows, closes, period)` overload; the EMA baseline is a standard `EMA` of closes. In the MQL5 build these are native `iATR` and `iMA(MODE_EMA)` handles, both read at shift 1 (the completed bar) to match the C# logic exactly.

> **Bar-close only:** the strategy acts once per newly-completed bar (shift 1). Signals never repaint intrabar — the still-forming bar (shift 0) is ignored until it closes.

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.

Price consolidates below the EMA baseline until a large green candle prints a strong upward thrust *on heavy volume* — a low-impact conviction bar that closes above the baseline. That is the long entry. The trade rides

the continuation toward the ATR-based take profit, protected by an ATR stop below, and would be closed early if price fell back through the EMA baseline or an opposite conviction bar appeared.

Parameters

Parameter	Default	Description
ImpactPeriod	`20`	Rolling window that defines the "normal" per-bar price-impact baseline. Range 8–80, step 2.
ImpactFactor	`0.85`	Conviction gate: the trigger bar's impact must be ≤ this × average impact (move efficiently absorbed by volume). Lower = stricter. Range 0.30–1.50, step 0.05.
ThrustFactor	`0.90`	The trigger bar's directional displacement must be ≥ this × ATR to count as a genuine thrust rather than noise. Range 0.30–2.50, step 0.10.
BaselinePeriod	`50`	EMA baseline that keeps entries on the prevailing trend side and doubles as the structural exit. Range 10–200, step 5.
AtrPeriod	`14`	ATR period used for the protective stop and target. Range 5–40, step 1.
AtrMultSl	`2.0`	Stop-loss distance as a multiple of ATR. Range 0.5–6.0, step 0.1.
AtrMultTp	`3.0`	Take-profit distance as a multiple of ATR (backstop for a runaway move). Range 0.5–10.0, step 0.1.
MaxSpreadPoints	`30`	Skip fresh entries when the spread (in points) is wider than this. 0 disables the filter. Range 0–200, step 5.
Lots	`0.10`	Order volume in lots. Range 0.01–1.00, step 0.05.
Magic	`8821`	Magic number identifying this EA's positions. One position per magic at a time. Range 0–9,999,999, step 1.

Recommended Settings

The defaults are a balanced starting point. Because every trigger is volume-normalised, the same knobs transfer well across symbols and timeframes, but the following adjustments help you tune character:

- **Stricter conviction:** lower `ImpactFactor` toward 0.60–0.70 and raise `ThrustFactor` toward 1.10–1.30 to demand larger, more efficiently-absorbed thrusts — fewer but higher-quality signals.

- **More responsive:** shorten `BaselinePeriod` (e.g. 30) so the trend gate and structural exit react faster in shorter timeframes.
- **Volatile instruments (e.g. XAUUSD):** widen `AtrMultSl` a little so the stop is not clipped by normal noise, and consider a higher `MaxSpreadPoints`.
- **Spread-sensitive pairs:** keep `MaxSpreadPoints` active to avoid entering during illiquid or news-driven spread spikes.

> **Tip:** The strategy runs on whatever timeframe the chart is set to — there is no hidden multi-timeframe logic. Optimise `ImpactPeriod`, `ThrustFactor` and `ImpactFactor` together on the exact symbol and timeframe you intend to trade, since they jointly define what "conviction" means for that market.

Example configuration — EURUSD H1

ImpactPeriod = 20, ImpactFactor = 0.80, ThrustFactor = 1.00, BaselinePeriod = 50, AtrPeriod = 14, AtrMultSl = 2.0, AtrMultTp = 3.0, MaxSpreadPoints = 20, Lots = 0.10. A moderately strict profile that waits for a clearly absorbed thrust above the 50-EMA before joining the trend.

How to Install on MetaTrader 5

1. Copy `PriceImpactConvictionTrend.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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