

Rsi Divergence Reversal

Expert Advisor Documentation

PLATFORM

MetaTrader 5 (MT5)

TYPE

Reversal · RSI Divergence

TIMEFRAME

M15 – H1

WEBSITE

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

Rsi Divergence Reversal is a counter-trend Expert Advisor that fades exhausted price swings by combining RSI momentum with confirmed price pivots. Rather than chasing a trend, it waits for the market to push to a fresh extreme while momentum quietly fails to follow — the classic signature of a stalling move — and then positions for the reversal.

The engine that makes this objective is its use of **confirmed fractal pivots**: a swing low or swing high is only recognised once it is the strict lowest (or highest) point inside a symmetric window of bars on both sides. Because the pivot is locked in before any decision is made, the divergence is repeatable and free of look-ahead bias. Once a regular divergence is detected, risk is anchored beyond the pivot using ATR, and the profit target is placed at a fixed reward-to-risk multiple.

The core idea. When price makes a *lower low* but RSI makes a *higher low* (bullish divergence), sellers are running out of force even as price drops — a reversal upward becomes likely. The mirror image (a higher high in price against a lower high in RSI) signals an exhausted rally and a likely move down.

How It Works

The strategy evaluates the market **once per completed bar**. On each new bar it appends the latest price and computes the RSI of that bar, then looks for confirmed pivots and the divergence conditions described below.

1. Confirmed Swing Pivots

A pivot is detected at a fixed shift of `PivotLookback` bars back from the newest bar. A bar qualifies as a swing low only if its low is strictly lower than every other bar within the symmetric `±PivotLookback` window; the swing high uses the mirror rule on highs. This means a signal can only fire *after* the pivot is fully surrounded and confirmed — never on a candle that is still forming.

2. Bullish Divergence → Buy

A long setup is flagged when a newly confirmed swing low satisfies **all** of the following relative to the previous confirmed swing low:

- **Lower low in price** — the new pivot low is below the prior pivot low.
- **Higher low in RSI** — RSI at the new pivot is above RSI at the prior pivot (momentum is improving while price falls).
- **Oversold confirmation** — at least one of the two swing lows formed with RSI below `RsiOversold`.
- **Within range** — the two pivots are no more than `MaxSwingGap` bars apart, so the comparison stays relevant.

3. Bearish Divergence → Sell

A short setup is the exact mirror: a newly confirmed swing **high** that is a **higher high in price**, a **lower high in RSI**, with **overbought confirmation** (at least one swing high formed above `RsiOverbought`) and the two pivots within `MaxSwingGap` bars of each other.

4. Entry, Stop Loss & Take Profit

Pending signals are only acted on when the account is **flat** for this symbol and magic number — the EA holds one position at a time and lets the stop loss and take profit manage the trade. Order levels are derived from ATR and the pivot:

```

// Bullish divergence (buy)
entry = Ask
SL    = pivotLow - ATR × SIAtrMult    // below the swing low
risk  = entry - SL
TP    = entry + risk × RrRatio        // fixed reward-to-risk

// Bearish divergence (sell)
entry = Bid
SL    = pivotHigh + ATR × SIAtrMult   // above the swing high
risk  = SL - entry
TP    = entry - risk × RrRatio

```

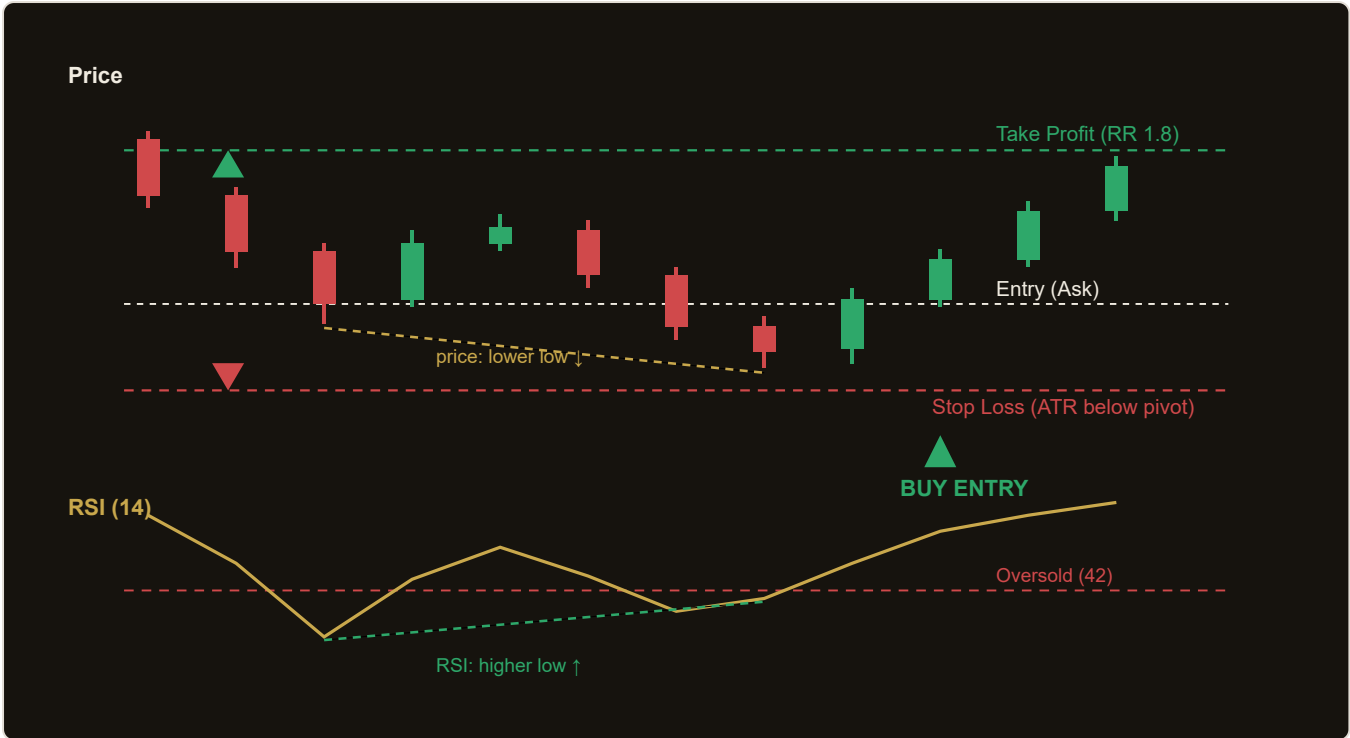
A trade is only sent if the geometry is valid (for a buy, the stop must sit below the entry; for a sell, above it). The stop is anchored a buffer of $ATR \times SIAtrMult$ beyond the pivot so that ordinary noise around the swing does not stop the trade out prematurely.

Worked example — bullish divergence

Suppose EURUSD prints a confirmed swing low at 1.0840 with RSI 28 (oversold), then a second confirmed swing low at 1.0820 (a lower low) but with RSI 35 (a higher low). With $ATR = 0.0015$ and $SIAtrMult = 1.0$, the stop is placed at $1.0820 - 0.0015 = 1.0805$. If the Ask entry is 1.0828 , risk = 23 pips, and with $RrRatio = 1.8$ the target sits at $1.0828 + 0.00414 \approx 1.0869$.

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
RsiPeriod	14	RSI averaging period used for momentum. Range 5–30, step 1.
PivotLookback	3	Symmetric pivot half-window. A swing must be the strict extreme across \pm PivotLookback bars. Range 2–8, step 1.
RsiOversold	42.0	Oversold confirmation level for bullish divergence; at least one swing low must form below this. Range 20–50, step 2.
RsiOverbought	58.0	Overbought confirmation level for bearish divergence; at least one swing high must form above this. Range 50–80, step 2.
AtrPeriod	14	ATR averaging period used to size the stop-loss buffer. Range 5–30, step 1.
SIatrMult	1.0	Stop-loss distance as a multiple of ATR, placed beyond the pivot. Range 0.2–3.0, step 0.1.
RrRatio	1.8	Reward-to-risk ratio. Take profit = entry \pm (risk \times RrRatio). Range 1.0–4.0, step 0.1.
MaxSwingGap	60	Maximum number of bars allowed between the two compared pivots. Range 10–200, step 5.
Lots	0.10	Fixed order volume in lots. Range 0.01–1.0, step 0.05.
Magic	990210	Magic number identifying this EA's positions so it manages only its own trades.

Tuning tip. A larger `PivotLookback` produces fewer but more significant swings (less noise, slower signals); a smaller value reacts faster but flags more minor pivots. Keep `RsiOversold` below `RsiOverbought` and treat them as confirmation gates — widening them toward the extremes (e.g. 30 / 70) makes signals rarer but typically higher quality.

Recommended Settings

Rsi Divergence Reversal is a swing-reversal system and works best where pivots are clean and momentum is meaningful — liquid majors on intraday timeframes.

- **Symbols:** Major FX pairs such as EURUSD, GBPUSD, USDJPY, and AUDUSD with tight spreads.
- **Timeframe:** M15 to H1. Lower timeframes generate more — but noisier — divergences; H1 favours cleaner, higher-conviction setups.

- **Defaults:** The shipped values (RSI 14, PivotLookback 3, oversold 42 / overbought 58, ATR 14, SL 1.0×ATR, RR 1.8) are a balanced starting point.
- **Risk:** Begin with the default `Lots = 0.10` (or smaller) and only scale up after validating on your broker's data. Confirm that `SLAttrMult` produces stops wider than the typical spread.

Always backtest and forward-test first. Reversal logic depends heavily on swing structure and spread. Validate any parameter set in the MT5 Strategy Tester and on a demo account across multiple market conditions before risking live capital.

How to Install on MetaTrader 5

- 1 Copy `RsiDivergenceReversal.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

Note. The EA acts on the close of each bar and trades only when no position with its `Magic` number is open for the chart symbol. Keep the terminal running and connected so that each new bar is processed.

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.