

# Level RSI Reversal

Expert Advisor Documentation

**PLATFORM**

MetaTrader 5 (MT5)

**TYPE**

Mean Reversion / Reversal

**TIMEFRAME**

M15 – M30

**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

**Level RSI Reversal** is a mean-reversion system that fades tests of horizontal support and resistance — but only when momentum confirms the move into the level has run out of fuel and is starting to turn. Rather than blindly “buying support and selling resistance,” it demands that two genuinely independent ideas agree on the same freshly-closed bar. That double confirmation is the entire point: it is what screens out the false breaks that wreck naive level-fading systems.

The two pillars are:

- **Structure** — price must be pressing on a *real* level. Levels are not round numbers; they are swing pivots carved out of recent price action. The EA picks the nearest pivot-based support below price and resistance above it.
- **Momentum** — the Relative Strength Index (RSI) must have stretched into an extreme recently *and* ticked back the other way on the signal bar. This captures the moment a one-sided push into the wall exhausts and the crowd begins to flip.

Because every distance — the “at the level” tolerance, the stop, and the target — is measured in multiples of Average True Range (ATR), the strategy self-scales to any symbol or timeframe. Its natural habitat is a liquid, range-prone major such as **EURUSD** or **AUDUSD** on **M15** or **M30**, where price spends most of its time rotating between levels.

**Why two confirmations?** Price tags levels all the time and breaks straight through them. Requiring a structural rejection *and* an exhausted-then-turning RSI on the same bar throws away the open-ended trend days where lone level-fades get run over. You trade fewer setups, but each one has both structure and momentum behind it.

## How It Works

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### 1. Structure — Support & Resistance from Swing Pivots

A **swing high** at a given bar is a high that stands strictly above the highs on *both* sides of it, out to `SwingLookback` bars in each direction; a **swing low** is the mirror image. From all the pivots inside the `LevelLookback` window, the EA selects the two nearest to current price:

- **Support** — the highest swing low that is still *below* the signal bar's close.
- **Resistance** — the lowest swing high that is still *above* the signal bar's close.

These are the walls price is actually pressing on — not arbitrary lines.

### 2. Momentum — RSI Exhaustion and the Turn

Tagging a level is not enough. The EA additionally requires RSI to have reached an extreme within the last `ExtremeLookback` closed readings, and to have reversed direction on the signal bar itself:

- **Long context:** RSI dipped to or below `OversoldLevel` recently, and is now *rising* (current reading > previous reading).
- **Short context:** RSI pushed to or above `OverboughtLevel` recently, and is now *falling* (current reading < previous reading).

### 3. Entry Conditions

A trade fires only when both the structural rejection and the RSI turn line up on the freshly-closed bar (shift 1):

#### **LONG — fade the dip into support**

The bar wicked down *into* support ( `Low ≤ support + tolerance` ) yet *closed back above it* ( `Close ≥ support` ), while RSI was recently oversold and is now turning up. Price probed the floor and was rejected.

#### **SHORT — fade the spike into resistance**

The bar wicked up *into* resistance ( `High ≥ resistance - tolerance` ) yet *closed back below it* ( `Close ≤ resistance` ), while RSI was recently overbought and is now turning down. Price probed the ceiling and was rejected.

The “closed back on the correct side of the level” rule is what distinguishes a *rejection* from a *breakout*. If price closes through the level, the thesis never triggers.

#### 4. Stop Loss, Take Profit & Risk

All distances are ATR-based, so the system adapts automatically to volatility:

```
tolerance    = LevelTo1Atr * ATR          (how close counts as "a test")

LONG  stop   = support    - StopAtrMult * ATR
LONG  take   = entry      + RewardRatio * (entry - stop)

SHORT stop   = resistance + StopAtrMult * ATR
SHORT take   = entry      - RewardRatio * (stop - entry)
```

The stop sits just beyond the rejected level — if price trades through it, the structural thesis has failed and the position is closed. The target is a fixed `RewardRatio` multiple of that stop distance.

#### 5. Trade & Order Management

- **One position per Magic number** at a time — the structural stop and target manage the exit; there is no averaging or grid.
- **One evaluation per closed bar** — signals are checked only when a new bar opens, using the just-closed bar as the signal bar. No intrabar repainting.
- **Spread gate** — the trade is skipped if the current spread exceeds `MaxSpreadPoints`, protecting entries during thin or volatile conditions.

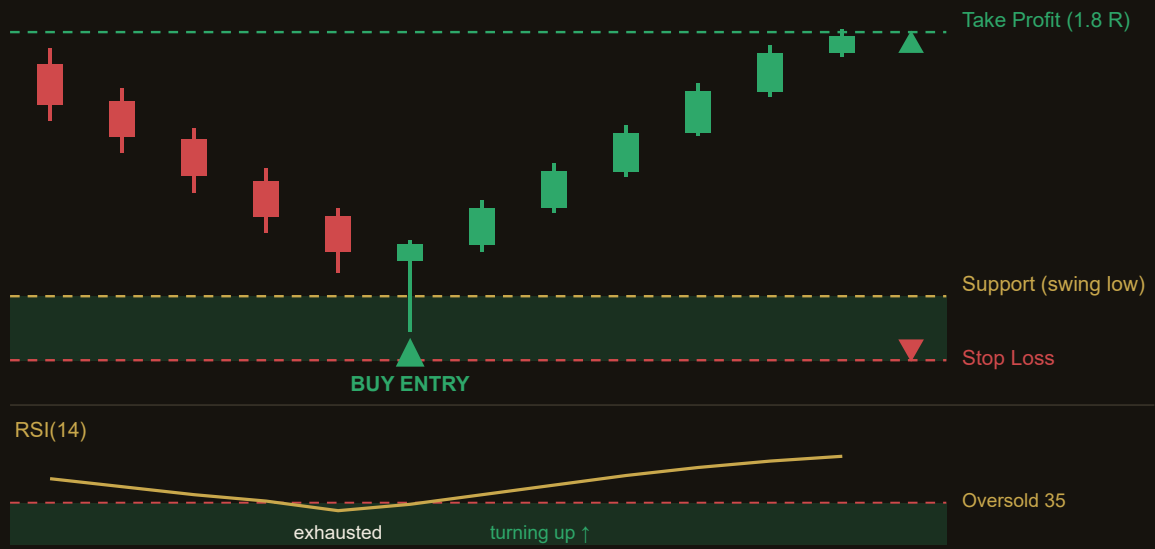
**No trailing or break-even logic.** Each position is a clean, pre-defined bet: a structural stop beyond the level and a fixed reward-multiple target. The trade resolves at one or the other.

## Strategy in Action

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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. It depicts a **LONG** setup: a rejection of support paired with an exhausted, turning-up RSI.

LONG setup — support rejection + RSI exhaustion turning up



*Illustrative example only. Actual market behaviour varies.*

## Parameters

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Parameter	Default	Description
SwingLookback	3	Bars required on each side of a pivot to confirm a swing high / low. (Range 2–6)
LevelLookback	60	How many recent closed bars to scan for the nearest pivot-based level. (Range 20–150)
LevelToAtr	0.50	The “at the level” window, expressed as this multiple of ATR. (Range 0.10–1.50)
RsiPeriod	14	RSI smoothing period. (Range 7–28)
OversoldLevel	35.0	RSI at or below this within the lookback marks sellers as exhausted (long context). (Range 15–45)
OverboughtLevel	65.0	RSI at or above this within the lookback marks buyers as exhausted (short context). (Range 55–85)
ExtremeLookback	3	How many recent closed RSI readings the extreme may have occurred within. (Range 1–10)
AtrPeriod	14	ATR period used for tolerance and stop sizing. (Range 5–30)
StopAtrMult	1.00	Stop distance beyond the rejected level, in ATR multiples. (Range 0.20–3.00)
RewardRatio	1.80	Take-profit distance as a multiple of the stop distance. (Range 0.80–4.00)
MaxSpreadPoints	30	Skip the trade if the current spread (in points) is wider than this. (Range 1–200)
Lots	0.10	Fixed lot size for each position. (Range 0.01–1.00)
Magic	4827	Magic number identifying this EA’s positions; one position per magic at a time. (Range 0–9,999,999)

## Recommended Settings

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The defaults are tuned for a liquid, range-prone major on an intraday timeframe. Use them as a starting point and validate on your own broker’s data before any live use.

Setting	Suggested	Notes
Symbol	EURUSD / AUDUSD	Liquid majors that spend most of their time rotating between levels.
Timeframe	M15 / M30	A swing / mean-reversion cadence; enough bars to form clean pivots.
RewardRatio	1.80	Asymmetric payoff; lower it for a higher hit-rate, raise it for fewer, larger wins.
MaxSpreadPoints	30	Tighten on low-spread accounts; widen for symbols with naturally wider spreads.
Lots	0.10	Size to your account so a full stop is a small, fixed fraction of equity.

**Tuning tip:** `LevelToIAtr` and `StopAtrMult` control how forgiving the level test and stop are. In choppy conditions a slightly wider tolerance catches more rejections, but a wider stop reduces reward relative to risk — adjust them together and re-check the resulting reward-to-risk in testing.

**Optimisation caution:** With many parameters it is easy to curve-fit to historical noise. Prefer broad, stable parameter regions over a single “perfect” combination, and always confirm on out-of-sample data and forward (demo) testing.

## How to Install on MetaTrader 5

- 1 Copy `LevelRSIReversa1.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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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.