



# INSILICO

FSVZO  
Product Guide | 2020  
Volume Component Series



# Fourier Smoothened Volume Zone Oscillator.

## A leading/predictive volume based oscillator

FSVZO is a unique proprietary volume focused indicator, born from experimentation with leading indicator concepts, incorporating Fourier transformation for smoother and more responsive curvature, providing a statistical component to volume based logic. It leads price action, has clear divergences and provides re-entry points. It can identify when the trend is losing momentum & strength.

The statistical components in FSVZO equation helps to provides very smooth curvature of signal lines and responsiveness to overbought/oversold levels, that have similar efficiency even in parabolic trends. This and other factors make FSVZO stand out from similar volume based oscillators

The most striking feature of FSVZO - predicting trend shifts and reversals with sophisticated accuracy.



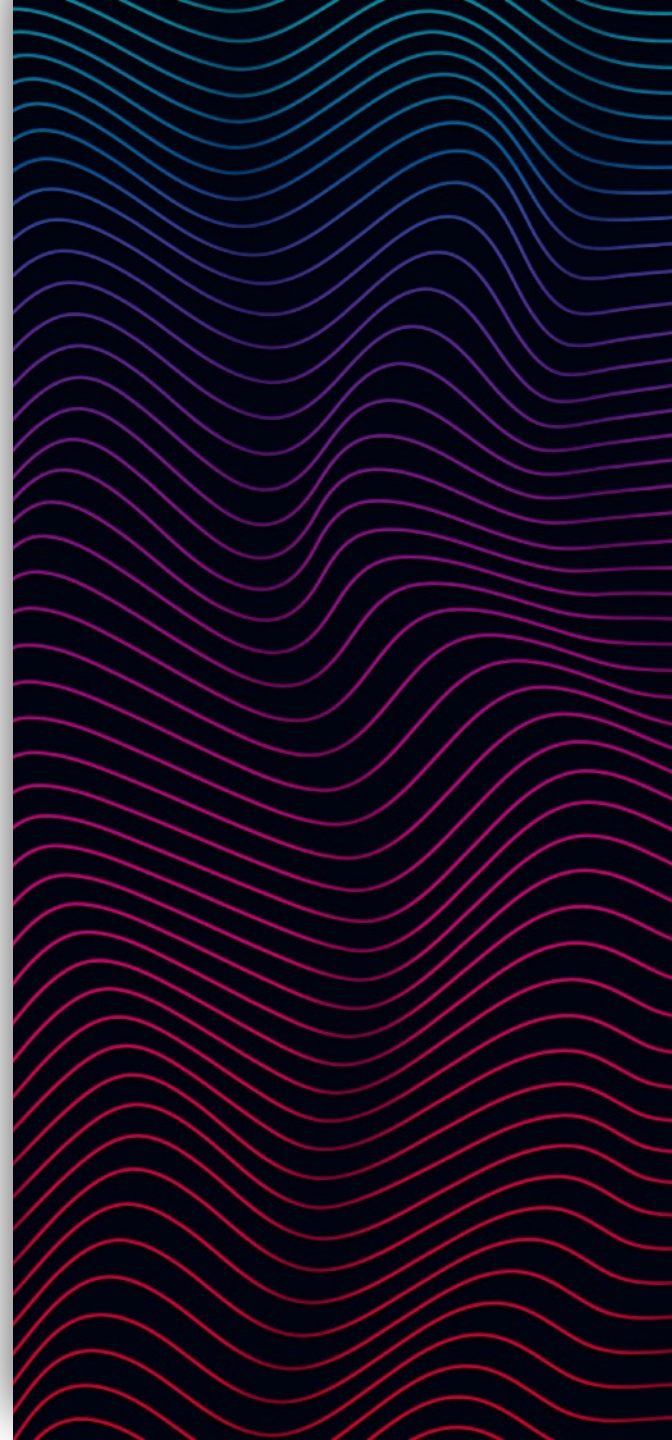




STRUCTURE

# Structural elements of FSVZO.

This section will detail functions and designed meanings for the plotted structural parts of the FSVZO oscillator. It will provide a list of structural components covered and short descriptions, guidelines on how to read individual parts of the indicator, as well as more in-depth examples on the later slides.



# Structural Components.

**Band** - Transforms price to a predictive curve that turns green or red depending on trend direction.

**Red/green Coloured Extremes** - Visualises areas that signal price reversals after the band reaches them, extreme points are marked with a green X or red arrows depending on trend direction.

**Midline** - Represents range middle.

**Green/Red Bubbles** - Represents FSVZO reversals.

**White MA** - This can be used as a discretionary filter, after FSVZO crosses the MA it usually produces a directional impulse.

**H/R** - Stands for hidden and regular divergences, colour represents trend, automated divergence detection is still in beta and might be clingy, the blue/orange bars on the price chart correlate with divergences.

**Hue/Background Colouring** - This acts as an alert for extremely overbought oversold conditions, it warns the user on not taking the position opposing the hue colour, for example if it's green, its warning you not to take short positions, if red not to take long positions.



## KEY INDICATIONS

# Standalone Signal Generation.

This chart provides a zoomed out view of the FSVZO oscillator, stripped of its more complex components and left with basic state.





KEY INDICATIONS

# FSVZO Signal Band.

Intuitively colour coded bi-coloured signal band (or line), a core of FSVZO.

When the line goes up, price goes up.  
When the line goes down, price goes down. Curve peak points are relatively rare outside of extreme levels (marked as green/red horizontal bands) which makes it fast, predictive and **predictable** to use.

It produces decent divergences and entry points, it contextualises future price direction for trend, while also detecting changes very quickly. It was originally built as a scalper system volume component.





## KEY INDICATIONS

# Levels.

## Coloured Extremes

FSVZO creates resistance and support levels, levels that likely to act as reversal points. They behave like price levels/pivots, or supply and demand zones traders usually use on price charts.

Levels can be used for predicting FSVZO reversals, for determining trend strength, used as take profit areas or re-entry areas. In short it paints active levels that FSVZO respects. Reaching them are relatively rare events.





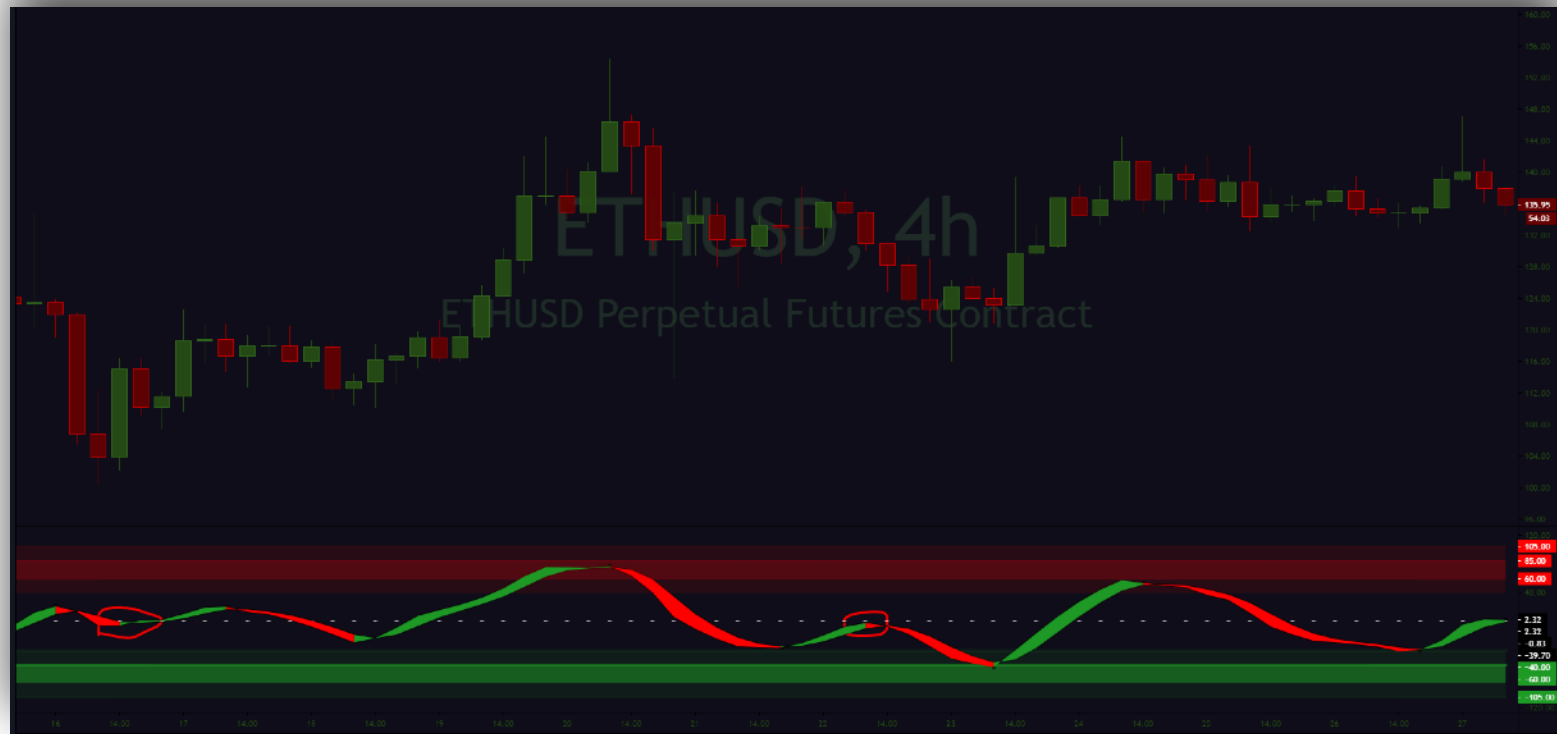
COMPONENT

# Midline.

The Midline separates bullish and bearish FSVZO bias, it's marked by a dotted line in the middle of the oscillator at value of 0. It acts as a major S/R (support and resistance) line.

Chop (erratic directional changes, colour flips, trend flips) is likely to occur in the oscillator and is

reflected in price when the band moves between the midline (0 line) and the first coloured extreme level. However it's important to note **when the band reverses and changes direction from an extreme level, chop is almost completely absent and trend is clean.**



Rejection examples: band was unable to cross over the midline - it got rejected and acted as bearish continuation signal





## KEY INDICATIONS

# Trend Shift 'Bubbles'

More than just directional change/band crossover.

The algorithm attempts to derive actionable, early & predictive trend change signals. It can also be used as a stand alone indicator - **the green bubble means trend shift upwards, red means downwards.**

Effectivity varies from location on indicator where the bubble was located and how healthy the signal band is.





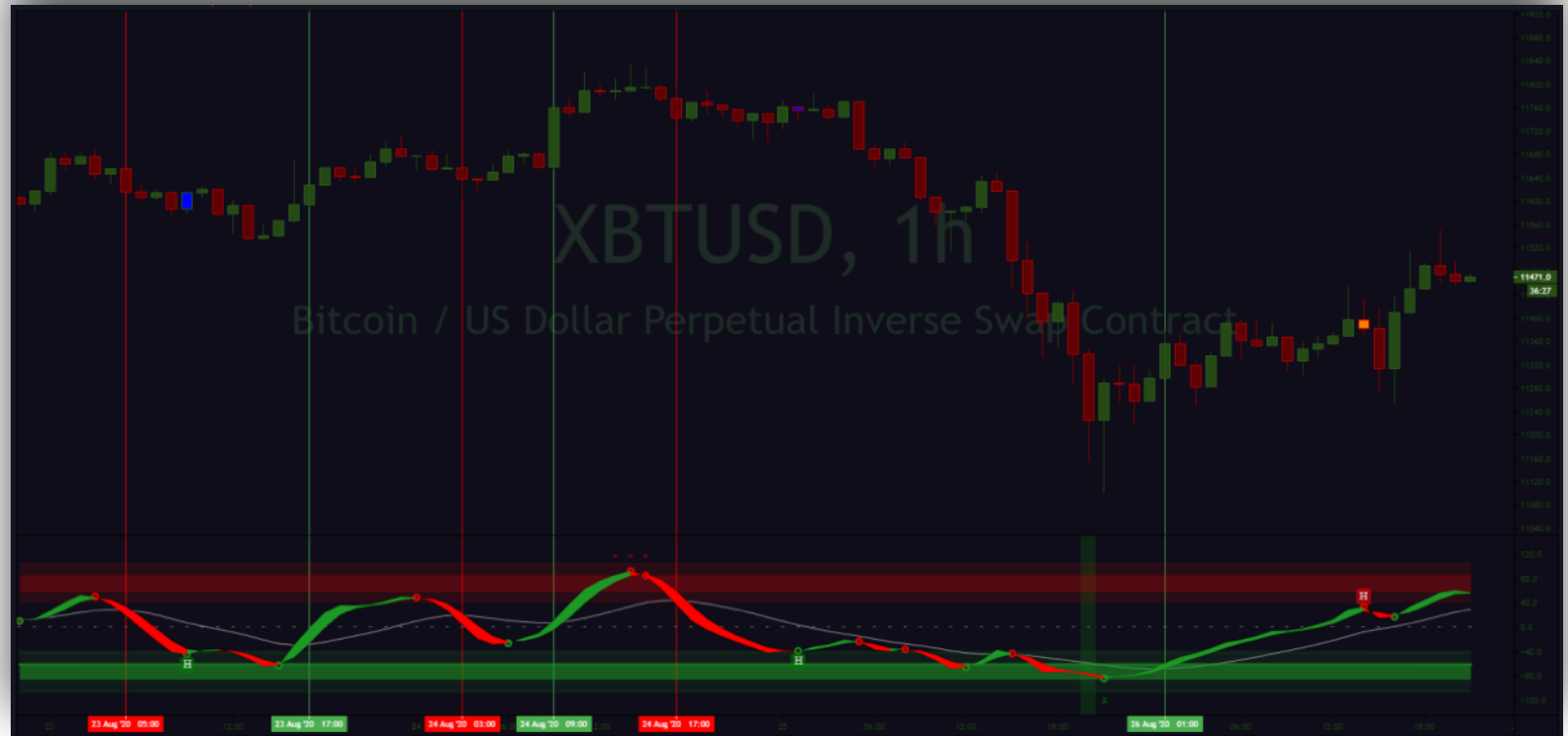
## KEY INDICATIONS

# MA Cross.

The MA can be used as a discretionary filter to filter out the trend direction. Following it produces some lag, but increases accuracy especially conditions prone to small chops.

Note: Events such as the FSVZO band crossing the MA, usually produces a directional impulse and is relatively rare.

The confirmation time is 1 bar.





# Overbought & Oversold Alerts.

Simply derived from band value and its interactions with extreme levels.

It prints symbols marked as red **x** for bearish and green **x** for bullish placed below/above extreme levels depending on side of extreme.

It alerts the user about abnormal FSVZO and Market behaviour, suggest reversals, and acts as a reminder to avoid high risk trades by entering into heavily abnormal conditions expecting the continuation.

It technically confirms theoretically correct entry signals the moment the alert stops printing, i.e. on first candle without an alert.

Note it's not advisable to enter a trade the moment you notice an alert, even if in most cases the first alert marks places of price reversal, or is very close to one. If you decide to use it as a reversal point without confirmation, it's advisable to use confluences such as trend shifts, band flips or other oscillators/indicators.





## KEY INDICATIONS

# Example of Confirmed Entry Using Ob & Os.

In the chart exemplified on this slide two oversold conditions were printed, the candle following it, was absent of any alert, which translates into indicator suggesting an entry point.







## KEY INDICATIONS

# Automatic Divergence Alerts Beta.

Proprietary Divergence recognition engine.

Directional signals:

**H** for hidden

**R** for regular

**Green** for bullish

**Red** for bearish

Traditionally **hidden** divergences are used for **continuation** and **regular for reversals**. It's advisable to draw divergences manually to avoid confirmation time and possible bugs.

It uses -1 lag.





COMPONENT

# White Noise Component.

This is a complimentary component of the FSVZO system. Growing bars show increasing trend related activity, shrinking bars show weakening in the overall trend. The moment it crosses to the other side, for example it flips from upside bars to downside bars - it signals a reversal.

It's advisable to use in confluence with the main oscillator. It was added to reduce the false positive rate and increase effectivity of the indicator.





## KEY INDICATIONS

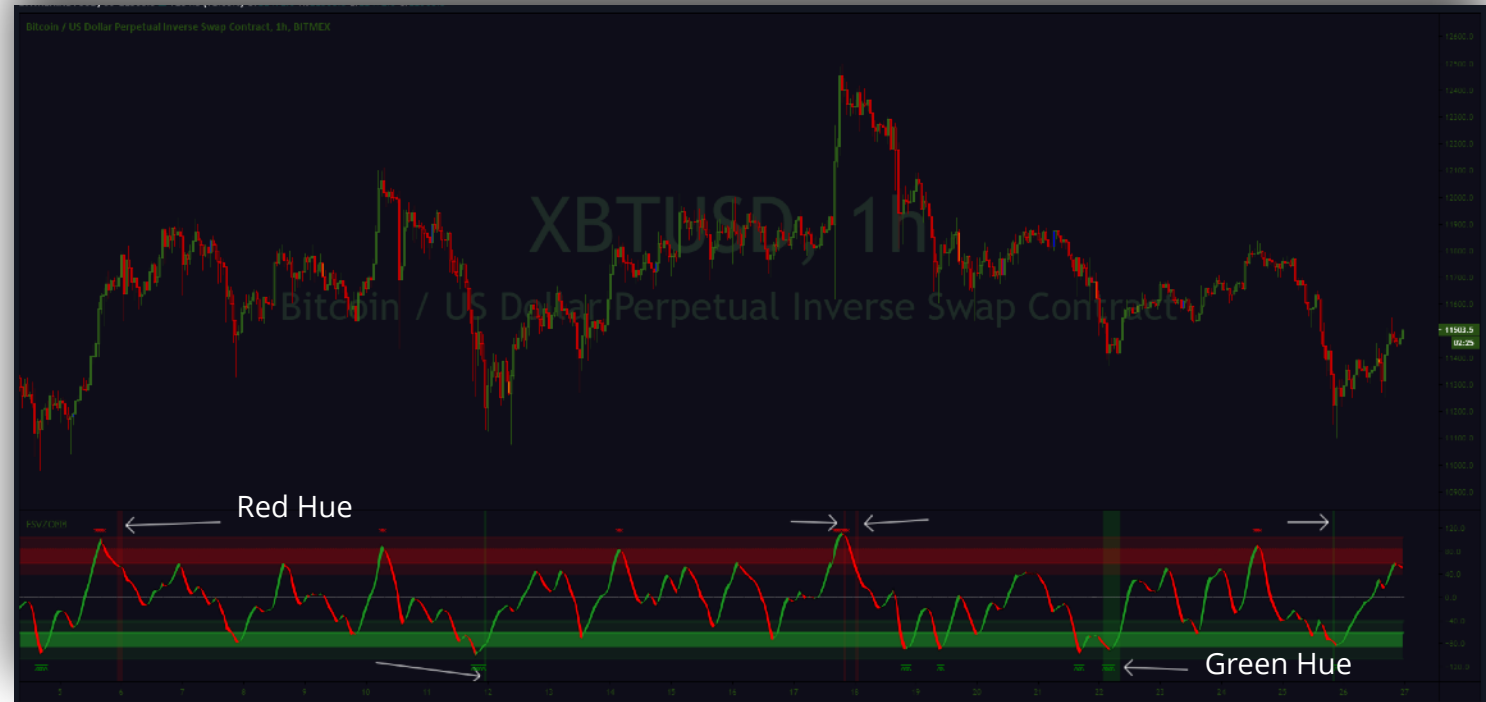
# Background Hue.

Similar to White noise, Hue (background highlighting) is independent to FSVZO component, it was added to provide confluences and increase indicator effectivity.

**Green Hue** - Alerts you about abnormal selling, appears in downtrend, suggesting to taking profits on short positions, look for long entries or avoid taking short positions in current conditions.

**Red Hue** - Alerts you about abnormal buying, appears in uptrend, suggests taking profits on long positions, look for short entries or abstain from entering long positions.

Hue provides high success rate trades when used in confluences alongside other FSVZO components.





**I hope you found this product guide useful explaining the structure and mechanics of FSVZO, it will be continually updated as product updates roll out.**

**The complete set of guides will be available soon.**

**Insilico**  
Coder



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