Kaiko

MIGRATION GUIDE

Volatility Metrics (24 hr)

Amberdata → Kaiko

2026

www.kaiko.com

1 At a glance

What this endpoint gives you: Amberdata's **Volatility Metrics (24 hr)** becomes Kaiko's **Implied Volatility Metrics**. For the underlying of an option, it returns one row per listed expiry at one snapshot: the at-the-money implied volatility, the 25, 15 and 10-delta risk reversals and butterflies, and the underlying price, each with its **change** against the same expiry `days_back` days earlier, for an immediate overview of the options market across expiries.

What changes for you

- You will call a new endpoint, `/analytics/volatility/implied-volatility-metrics`, using your Kaiko API key in the `X-Api-Key` header (§2).
- The underlying is split into two lowercase parameters: `currency=BTC` becomes `base_asset=btc` and `quote_asset=usd`. Exchange codes also change, for example `deribit` becomes `drbt` (§3, §6).
- `daysBack` becomes `days_back`, which accepts values from 1 to 30 days (§3).
- The live behaviour stays the same and history is added: without `value_time`, you get the latest snapshot, as with Amberdata. With `value_time`, you get the snapshot of any past minute (§3).
- Volatilities are now returned as decimals, for example `0.2936` where Amberdata returned `29.36` (percent). To keep Amberdata's scale, simply multiply by 100.
- Field names now use snake_case, for example `riskReversal25` becomes `risk_reversal_25`. The expiry is an ISO 8601 string, and every row carries its snapshot time in `value_time` (§5).
- The risk reversal and the butterfly are now also available at 10 delta, next to 25 and 15 delta (§5).

Coverage & distribution

Data type: One snapshot per request, one row per listed expiry (expiries ascending)
Snapshots: Every minute · the latest one by default
Metrics: ATM implied volatility · risk reversal and butterfly at 25, 15 and 10 delta · underlying price
Changes: Against the same expiry 1 to 30 days earlier (`days_back` , default 1)
Exchanges: Deribit, OKX and Bybit options · 18 underlyings (§6)
History: Past snapshots from October 2024, later for some underlyings (§6)
Distribution: REST API

2 Endpoint & authentication

	Amberdata (today)	Kaiko (new)
Method	GET	GET
Base URL	`https://api.amberdata.com`	`https://api.kaiko.io`
Path	`/markets/derivatives/analytics/volatility/metrics`	`/analytics/volatility/implied-volatility-metrics`
Auth	API key header `x-api-key`	API key header `X-Api-Key` (your Kaiko key)

Header names are not case-sensitive, so `x-api-key` and `X-Api-Key` refer to the same header: only the key itself changes. **Versioning:** Amberdata reported its version in `payload.metadata.api-version` (`2023-09-30`). Kaiko accepts an optional `api_version` query parameter (the default and current version is `2026-10-01`) and returns it in `meta.api_version`.

3 Request parameters

Amberdata param	Kaiko param	Change	Notes
`exchange` (required)	`exchange` (required)	RENAMED	Same name, now with Kaiko codes (§6): `deribit` → `drbt`, `bybit` → `bbit`. Lowercase only.
`currency` (required)	`base_asset` + `quote_asset` (both required)	RENAMED	`BTC` → `btc` + `usd`, `BTC_USDC` → `btc` + `usdc` (§6). Lowercase only.
`daysBack` (optional)	`days_back` (optional)	RENAMED	Default 1. An integer from 1 to 30; other values return a 400 error.
`timeFormat` (optional)	None	REMOVED	Kaiko times are always ISO 8601 strings, the same as Amberdata's `timeFormat=iso`. You can simply remove it from your requests.
None	`value_time` (optional)	NEW	The snapshot to return, as of this time. Without it, you get the latest snapshot, as with Amberdata.
None	`source` (optional)	NEW	How the volatilities are measured. `mark_iv`, the default, is Amberdata's method.
None	`api_version` (optional)	NEW	Lets you pin the response format. The default is `2026-10-01`.

Snapshot, history and limits

- **Latest snapshot:** without `value_time`, Kaiko returns the latest snapshot, as Amberdata did. A new snapshot is published every minute.
- **Past snapshot:** with `value_time`, you get the snapshot of that minute, or the newest one up to 5 minutes before it. Each row's `value_time` is the minute actually returned (`12:01:30` returns `12:01:00`). Please use ISO 8601 with a time zone, for example `2026-10-19T12:01:00.000Z`. A date alone, a time without zone or a time in the future returns a 400 error.
- **History:** past snapshots are available from October 2024, later for some underlyings (§6). A time with no snapshot returns a 200 response with an empty `data` array.
- **days_back:** Kaiko accepts 1 to 30 days, while Amberdata accepted larger values. An expiry only gets a row if the same expiry was also listed in the snapshot `days_back` days earlier.

4 Response envelope & metadata

These are the fields around the data, in other words the wrapper your parser reads before reaching the numbers. This envelope is **identical on every Amberdata endpoint**.

Amberdata field	Kaiko field	Change	Notes
`status`	None	REMOVED	Please use the HTTP status code (200) instead.
`title`	None	REMOVED	There is no equivalent on success.

Amberdata field	Kaiko field	Change	Notes
`description`	None	REMOVED	There is no equivalent on success.
`payload.data`	`data`	RENAMED	Now at the top level. An **array** with one row per expiry.
`payload.metadata`	`meta`	RENAMED	Now at the top level.
`api-version`	`api_version`	RENAMED	`2026-10-01` (Amberdata: `2023-09-30`).
None	`count`	NEW	The number of rows in `data` (expiries).
None	`next_url`	NEW	Always `null`, since there is a single page.
None	`url`	NEW	Your request URL, including `api_version`.

On Amberdata, `api-version` sits inside `payload.metadata`. On Kaiko, `api_version`, `count`, `next_url` and `url` all sit inside `meta`.

Errors and empty results

- **Underlying not listed on the exchange:** Amberdata returned a 200 response with an empty `data` array. Kaiko returns a **404** error with the code `unknown_instrument` (for example "drbt does not serve doge-usd").
- **Uppercase or Amberdata codes:** Amberdata accepted any case. Kaiko returns a **400** error (for example `DRBT`, `BTC`, `deribit`).
- **No snapshot at `value_time`:** Kaiko returns a 200 response with an empty `data` array.
- **Missing or invalid parameter:** both APIs return a 400 error. Kaiko errors are `application/problem+json` (RFC 9457) bodies that include `status`, `title`, a `detail` message naming the parameter, and the code `invalid_parameter`.

5 Response data fields

Amberdata field	Kaiko field	Type	Change
None	`value_time`	string	NEW
`exchange`	None	string	REMOVED
`currency`	None	string	REMOVED
`expirationTimestamp`	`expiry`	string	RENAMED
`daysToExpiration`	`days_to_expiry`	number	RENAMED
`underlyingPrice`	`underlying_price`	number	RENAMED
`underlyingPriceChange`	`underlying_price_change`	number	RENAMED
`atm`	`atm`	number	RENAMED
`atmChange`	`atm_change`	number	RENAMED

Amberdata field	Kaiko field	Type	Change
`riskReversal25`	`risk_reversal_25`	number	RENAMED
`riskReversal25Change`	`risk_reversal_25_change`	number	RENAMED
`riskReversal15`	`risk_reversal_15`	number	RENAMED
`riskReversal15Change`	`risk_reversal_15_change`	number	RENAMED
None	`risk_reversal_10`	number	NEW
None	`risk_reversal_10_change`	number	NEW
`butterfly25`	`butterfly_25`	number	RENAMED
`butterfly25Change`	`butterfly_25_change`	number	RENAMED
`butterfly15`	`butterfly_15`	number	RENAMED
`butterfly15Change`	`butterfly_15_change`	number	RENAMED
None	`butterfly_10`	number	NEW
None	`butterfly_10_change`	number	NEW

- **value_time** is the snapshot time, as an ISO 8601 string (`"2026-10-22T21:02:00.000Z"`). Amberdata did not return the snapshot time.
- **exchange and currency** are no longer repeated in the rows: they are in your request and in `meta.url` .
- **expiry** is now an ISO 8601 string (`"2026-10-23T08:00:00.000Z"`), whereas Amberdata returned a number of milliseconds by default.
- **risk_reversal_*** is the call's implied volatility minus the put's at the same delta. **butterfly_*** is the call plus the put minus twice `atm` (no ½), which is Amberdata's convention. Both fields are `null` when that wing lies outside the expiry's listed strikes.
- ***_change** is the field minus its value on the same expiry `days_back` days earlier.

Units: volatilities, risk reversals, butterflies and their changes are annualised. Amberdata expressed them in percent (`29.36` = 29.36%), while Kaiko uses decimals (`0.2936` = 29.36%). `underlying_price` and its change are in the quote asset. `days_to_expiry` is in fractional calendar days, below 1 for an expiry within the day.

6 Exchange & venue names

For this endpoint, the venue is an **options exchange**. Please map the exchange and the currency you send:

Amberdata exchange	Amberdata currency	Kaiko exchange	base_asset	quote_asset	Past snapshots from
deribit	BTC	drbt	btc	usd	Oct 2024
deribit	ETH	drbt	eth	usd	Oct 2024
deribit	BTC_USDC	drbt	btc	usdc	Aug 2025
deribit	ETH_USDC	drbt	eth	usdc	Aug 2025
deribit	SOL_USDC	drbt	sol	usdc	Oct 2024

Amberdata exchange	Amberdata currency	Kaiko exchange	base_asset	quote_asset	Past snapshots from
deribit	XRP_USDC	drbt	xrp	usdc	Oct 2024
deribit	AVAX_USDC	drbt	avax	usdc	Jan 2026
deribit	TRX_USDC	drbt	trx	usdc	Jan 2026
deribit	HYPE_USDC	drbt	hype	usdc	Jun 2026
okex	BTC	okex	btc	usd	Oct 2024
okex	ETH	okex	eth	usd	Oct 2024
bybit	BTC_USDT	bbit	btc	usdt	Jun 2025
bybit	ETH_USDT	bbit	eth	usdt	Jun 2025
bybit	SOL_USDT	bbit	sol	usdt	Jun 2025
bybit	XRP	bbit	xrp	usdt	Sep 2026
bybit	DOGE	bbit	doge	usdt	Sep 2026
bybit	MNT	bbit	mnt	usdt	Sep 2026
bybit	XAUT	bbit	xaut	usdt	Sep 2026

These are Kaiko's **options** exchange codes: Bybit is `bbit` here, not the spot code `bbsp`. On Amberdata, Bybit's XRP, DOGE, MNT and XAUT had no `_USDT` suffix, but on Kaiko their `quote_asset` is `usdt`, like the other Bybit underlyings. Amberdata's codes (for example `deribit`) return a 400 error.

Coverage as of today: these are the underlyings served today, and our teams are working to extend this coverage.

7 Will your values change?

Short answer

The calculation is the same: once volatilities are divided by 100, the values are directly comparable with Amberdata's. What is new is the 10-delta wing and the access to past snapshots.

- **Same methodology:** risk reversal is call minus put, and butterfly is call plus put minus twice the ATM volatility. The change compares each expiry with the latest snapshot of the hour ending `days_back` days earlier, so only expiries listed in both snapshots have a row. Expiries within the day are included.
- **Reference time of the change:** Kaiko counts `days_back` from the snapshot it returns (`value_time`), whereas Amberdata counted it from the time of the request, about one to two minutes later. On a live call, the two reference snapshots can therefore be one or two minutes apart, and the `_change` fields can differ slightly.
- **10 delta:** `risk_reversal_10`, `butterfly_10` and their changes are new, with no Amberdata equivalent.
- **History:** Amberdata served the latest snapshot only. Kaiko returns it by default, and any past minute through `value_time` (§3, §6).

8 Before / after example

Request

Amberdata

```
GET https://api.amberdata.com
    /markets/derivatives/analytics
    /volatility/metrics
    ?exchange=deribit
    &currency=BTC
    &daysBack=3
x-api-key: <your-amberdata-key>
```

Kaiko

```
GET https://api.kaiko.io
    /analytics/volatility
    /implied-volatility-metrics
    ?source=mark_iv
    &exchange=drbt
    &base_asset=btc
    &quote_asset=usd
    &days_back=3
X-Api-Key: <your-kaiko-key>
```

To get a past snapshot from Kaiko, simply add `&value_time=2026-10-19T12:01:00.000Z` to the request.

Response (real responses at the same snapshot, 2026-10-22 21:02 UTC; first expiry, values rounded, fields reordered)

Amberdata


```
{
  "status": 200,
  "title": "OK",
  "description": "Successful request",
  "payload": {
    "data": [ {
      "exchange": "deribit",
      "currency": "BTC",
      "expirationTimestamp": 1792742400000,
      "daysToExpiration": 0.4569,
      "underlyingPrice": 81193.15,
      "underlyingPriceChange": -820.87,
      "atm": 29.36,
      "atmChange": -1.68,
      "riskReversal25": -4.52,
      "riskReversal25Change": -1.81,
      "riskReversal15": -8.14,
      "riskReversal15Change": -2.94,
      "butterfly25": 3.24,
      "butterfly25Change": 1.18,
      "butterfly15": 8.25,
      "butterfly15Change": 3.59
    },
    … 7 more expiries, up to 2027-09-24
    ],
    "metadata": {
      "api-version": "2023-09-30"
    }
  }
}
```


Kaiko


```
{
  "data": [ {
    "value_time": "2026-10-22T21:02:00.000Z",
    "expiry": "2026-10-23T08:00:00.000Z",
    "days_to_expiry": 0.4569,
    "underlying_price": 81193.16,
    "underlying_price_change": -800.51,
    "atm": 0.2936,
    "atm_change": -0.0171,
    "risk_reversal_25": -0.0453,
    "risk_reversal_25_change": -0.0177,
    "risk_reversal_15": -0.0815,
    "risk_reversal_15_change": -0.0291,
    "risk_reversal_10": -0.1121,
    "risk_reversal_10_change": -0.0412,
    "butterfly_25": 0.0324,
    "butterfly_25_change": 0.0118,
    "butterfly_15": 0.0825,
    "butterfly_15_change": 0.0361,
    "butterfly_10": 0.1453,
    "butterfly_10_change": 0.0650
  },
  … 7 more expiries, up to 2027-09-24
  ],
  "meta": {
    "api_version": "2026-10-01",
    "count": 8,
    "next_url": null,
    "url": "https://api.kaiko.io/analytics/
volatility/implied-volatility-metrics?
source=mark_iv&exchange=drbt&base_asset=btc&quote_
asset=usd&days_back=3&api_version=2026-10-01"
  }
}
```


Questions? Kaiko support · support@kaiko.com

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