Kaiko

MIGRATION GUIDE

Top Trades

Amberdata → Kaiko

2026

www.kaiko.com

1 At a glance

What this endpoint gives you: for the options of one underlying on one exchange, this endpoint returns every trade whose size clears a notability threshold, one row per trade, with size in USD, delta, vega, gamma and theta exposures, block structure (block id, number of legs and block total), open-interest change and two aggressor verdicts, including the side the venue reported and Kaiko's own reading of who initiated the trade. "Top" is a threshold, not a ranking: a wider window returns more rows, not different ones. This is the "whale tape" of the options flow.

What changes for you

- You will call a new endpoint, `/analytics/trades-flow/top-trades`, using your Kaiko API key in the `X-Api-Key` header (§2).
- The underlying is now three lowercase parameters: `exchange=deribit` becomes `exchange=drbt`, and `currency=BTC` becomes `base_asset=btc` with `quote_asset=usd`. A linear book follows the same rule, for example `currency=SOL_USDC` becomes `base_asset=sol` with `quote_asset=usdc` (§3, §6).
- Dates are now full timestamps with a time zone: `startDate` and `endDate` become `start_time` and `end_time`, for example `2026-10-26T00:00:00.000Z`. The window itself stays the same: `[start, end)`, 24 hours by default and at most (§3).
- The filters are renamed: `expiration` becomes `expiry_after` (a full timestamp), and `blockTradeId` splits into `is_block_trade` (`true` / `false`) and `block_trade_id` (an id). `timeFormat` is removed (§3).
- Implied volatilities are now returned as decimals, for example `0.364` where Amberdata returned `36.4` (percent). Directions keep the words `buy` and `sell`, under the new name `kaiko_direction` for `amberdataDirection` (§5).
- Field names move to snake_case, for example `exchangeTimestamp` becomes `timestamp` and `sizeUSD` becomes `size_usd`. Times are returned as ISO 8601 strings with milliseconds instead of epoch milliseconds (§5).
- The four hedge fields of a block package's futures leg keep snake_case names: `hedgeInstrument` becomes `hedge_instrument`, a Kaiko instrument code such as `btcperpetual` (§5, §6).
- The selection rule, the thresholds, the sizes and the order are the same: once the implied volatility is divided by 100, a trade carries the same values on both sides (§7).
- A pair the exchange does not list is now an error: Kaiko returns a 404, not an empty result (§4).

Coverage & distribution

Data type: One row per notable option trade (block legs included), newest first

Threshold: 5 contracts on `btc` / `usd`, 50 on `eth` / `usd`, 500 on `sol` / `usdc` and `xrp` / `usdc`, 5 on every other underlying, applied to the block total

Metrics: Trade, implied volatility and USD size · delta, vega, gamma and theta exposures · block structure · open-interest change · venue direction and Kaiko direction

Exchange: Deribit (`drbt`), inverse and linear options. Our teams are working to extend this coverage to further exchanges

Underlyings: Every option listed on the exchange, selected by base asset and quote asset (§6)

Range: Up to 24 hours per request

History: From 1 June 2021

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/options-scanner/top-trades`	`/analytics/trades-flow/top-trades`
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	The name is unchanged, but the value is now the Kaiko code (§6): `deribit` → `drbt`. Lowercase only: `DRBT` returns a 400 error (Amberdata accepted any case).
`currency` (required)	`base_asset` + `quote_asset` (both required)	RENAMED	`BTC` becomes `base_asset=btc` and `quote_asset=usd`; `SOL_USDC` becomes `base_asset=sol` and `quote_asset=usdc` (§6). Both must be lowercase: `BTC` returns a 400 error.
`startDate` (optional)	`start_time` (optional)	RENAMED	**Inclusive**, as before. Please use an RFC 3339 timestamp with a time zone, for example `2026-10-26T00:00:00.000Z` (seconds or milliseconds, at most three fractional digits). A date on its own or a time without zone, which Amberdata accepted, returns a 400 error.
`endDate` (optional)	`end_time` (optional)	RENAMED	**Exclusive**, as before: the window covers `[start_time, end_time)`. The same format rule as for `start_time` applies.
`expiration` (optional)	`expiry_after` (optional)	RENAMED	Keeps only the options still live at that instant (expiry at or after it), as before. A full timestamp with a time zone, for example `2026-12-25T08:00:00Z`: a date on its own, which Amberdata accepted, returns a 400 error. See the defaults below.
`blockTradeId` (optional)	`is_block_trade` + `block_trade_id` (optional)	RENAMED	One parameter becomes two: `true` becomes `is_block_trade=true`, `false` becomes `is_block_trade=false`, and an id becomes `block_trade_id=BLOCK-303825`.
`timeFormat` (optional)	None	REMOVED	Kaiko times are always ISO 8601 strings (§5). Sending it returns a 400 error, so you can simply remove it from your requests.
None	`api_version` (optional)	NEW	Lets you pin the response format. The default is `2026-10-01`.

Defaults and limits

- **Boundary, the same as Amberdata:** the window is `[start_time, end_time)`. A trade at `start_time` is included, a trade at `end_time` is not.
- **No dates, the same as Amberdata:** if you include no dates, the last 24 hours up to now are returned and `expiry_after` defaults to the current time, so the options that expired during those 24 hours are left out. To include them, send `expiry_after` with the start of the window.
- **One date only:** if you only provide `start_time`, the window runs from that time up to now, within the 24-hour limit. If you only provide `end_time`, the 24 hours before it are returned, as on Amberdata.
- **Expiry filter:** with dates, `expiry_after` defaults to `start_time` on both sides, so every option still live at the start of the window is included.
- **Limits, the same as Amberdata:** up to 24 hours per request. A wider window returns a 400 error naming the cap: the window is never shortened automatically. The whole window comes in one response, without pagination. A window that would hold 100,000 trades or more returns a 400 error asking for a narrower window, never a truncated response.
- **Checks:** the start must be before the end, otherwise Kaiko returns a 400 error (Amberdata returned an empty result).
- **Order:** fixed, as on Amberdata: newest first, then the larger block total, then the block id, then the higher USD price, then the instrument. There is no `sort` parameter.
- **Filters:** they combine, so a trade is returned only when it passes every filter sent. A filter that matches nothing returns a 200 response with an empty `data` array, as on Amberdata. `is_block_trade=false` cannot be combined with `block_trade_id`: that returns a 400 error.
- **Parameter names:** Kaiko rejects a parameter it does not know with a 400 error (for example `expiration: unknown parameter`), so please rename every Amberdata parameter, `currency` and `timeFormat` included.

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.
`description`	None	REMOVED	There is no equivalent on success.
`payload.data`	`data`	RENAMED	Now at the top level. An **array**, one row per trade, or empty.
`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`.
None	`next_url`	NEW	Always `null`: the whole window comes in one response.

Amberdata field	Kaiko field	Change	Notes
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

- **No notable trade in the window,** or a filter that keeps nothing: both APIs return a 200 response with an empty `data` array (`meta.count` = 0 on Kaiko).
- **Underlying not found** (a misspelled `base_asset` or `quote_asset`, or a pair the exchange does not list): Kaiko returns a 404 error with the code `unknown_instrument` and a detail naming the pair, where Amberdata returned a 200 response with an empty `data` array. An `exchange` outside the served list returns a 400 error on Kaiko, naming the allowed values.
- **Uppercase values:** Amberdata accepted any case. Kaiko returns a 400 error, for example for `BTC` or `DRBT`.
- **Start equal to or after end, or a window wider than 24 hours:** Kaiko returns a 400 error (Amberdata returned a 400 error for the wide window, and an empty result for the inverted one).
- **Missing or invalid key:** Kaiko returns a 401 error with the code `missing_api_key` or `invalid_api_key`.
- **Missing, unknown 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

Each row carries the same information on both sides: the trade, its block structure, its directions and its exposures. Names move to snake_case, and the notes below the table explain the values that change shape.

Amberdata field	Kaiko field	Type	Change
`exchangeTimestamp`	`timestamp`	string	RENAMED
`exchange`	`exchange`	string	RENAMED
`currency`	`base_asset` `quote_asset`	string	RENAMED
`instrument`	`instrument`	string	RENAMED
`exchangeDirection`	`exchange_direction`	string	RENAMED
`amberdataDirection`	`kaiko_direction`	string	RENAMED
`blockTradeId` `numberOfLegs`	`block_trade_id` `number_of_legs`	string integer	RENAMED
`tradeAmount` `blockAmount`	`trade_amount` `block_amount`	number	RENAMED
`tradeIv`	`trade_iv`	number	RENAMED

Amberdata field	Kaiko field	Type	Change
`price`	`price`	number	IDENTICAL
`priceUsd` `indexPrice`	`price_usd` `index_price`	number	RENAMED
`openInterestChange`	`open_interest_change`	number	RENAMED

`sizeUSD`
`sizeDelta`
`sizeVega`
`sizeGamma`
`sizeTheta`
	`size_usd`
	`size_delta`
	`size_vega`
	`size_gamma`
	`size_theta`
		number	RENAMED

`hedgeInstrument`
`hedgeIsBuySide`
`hedgePrice`
`hedgeVolume`
	`hedge_instrument`
	`hedge_is_buy_side`
	`hedge_price`
	`hedge_volume`
		string
		boolean
		number
		number
			RENAMED

- **timestamp** is the time of the trade as the venue reported it, as an ISO 8601 UTC string with milliseconds (`"2026-10-26T00:09:15.295Z"`); Amberdata returned epoch milliseconds (`1792973355295`).
- **exchange, base_asset, quote_asset** echo your request (`drbt`, `btc`, `usd`) where Amberdata returned `deribit` and `BTC`.
- **instrument** is now the Kaiko instrument code (`btc13nov2690000c` for Amberdata's `BTC-13NOV26-90000-C`), the same code the decorated-trades endpoint uses.
- **exchange_direction** is the taker side as the venue reported it and **kaiko_direction** is Kaiko's verdict on who initiated the trade, read from the top of book, the implied volatilities and the size around it, the same role as Amberdata's `amberdataDirection`. Both are `buy` or `sell`, as on Amberdata.
- **block_trade_id**, **number_of_legs** and **block_amount** describe the block a trade belongs to: the venue's block id, the number of option legs in the block, and the sum of their sizes in contracts (two legs of 50 contracts give a block total of 100). The id and the leg count are `null` on an on-screen trade, whose block total equals its own size, as on Amberdata.
- **trade_amount** is the size in contracts, **price** the trade price in the option's quote currency (the base asset for inverse options, for example `0.0031` BTC), **price_usd** the same price in USD, **index_price** the venue's index at the trade and **open_interest_change** the change of open interest the trade produced, in contracts, all unchanged.
- **size_usd** is `price_usd` times `trade_amount`, and **size_delta**, **size_vega**, **size_gamma** and **size_theta** are the option's greek at the trade times `trade_amount`: the exposure the trade moved, with the same formulas on both sides.
- **hedge_instrument**, **hedge_is_buy_side**, **hedge_price** and **hedge_volume** describe the futures leg traded inside a block package, with the same values as Amberdata's `hedge*` fields: the futures contract as a Kaiko instrument code (`btcperpetual` for Amberdata's `deribit_BTC-PERPETUAL`, §6), whether that leg was bought, its price and its size as the venue reports it. All four are `null` when the package has no futures leg and on an on-screen trade, as on Amberdata. The hedge fields are filled from 30 September 2026, and earlier rows carry `null`.

Units: `trade_iv` is the annualised implied volatility of the trade price. Amberdata expressed it in percent (`36.4` = 36.4%), while Kaiko uses decimals (`0.364` = 36.4%). Prices, sizes, USD values, exposures and open interest keep their units on both sides.

6 Exchange & venue names

For this endpoint, the venue is an **options exchange**. Please map the identifier you send and receive as follows:

Amberdata name	Kaiko code	Exchange
deribit	drbt	Deribit

The futures leg of a block package (`hedge_instrument`, §5) follows the same idea: Amberdata prefixed the venue to the venue's own contract name, Kaiko returns its instrument code, as on its other endpoints. For example:

Amberdata `hedgeInstrument`	Kaiko `hedge_instrument`	Contract
deribit_BTC-PERPETUAL	btcperpetual	Deribit BTC perpetual future

The underlying follows the same idea. Amberdata's `currency` named the book in one word, while Kaiko separates the base asset from the currency the options are quoted and settled in: `quote_asset=usd` selects the inverse options (quoted in the base asset, on a USD index) and `quote_asset=usdc` the linear ones. For example:

Amberdata `currency`	Kaiko `base_asset`	Kaiko `quote_asset`	Threshold
BTC	btc	usd	5 contracts
ETH	eth	usd	50 contracts
SOL_USDC	sol	usdc	500 contracts
XRP_USDC	xrp	usdc	500 contracts
BTC_USDC	btc	usdc	5 contracts
ETH_USDC	eth	usdc	5 contracts

Every option listed on the exchange is served, so any other underlying follows the same rule, with a threshold of 5 contracts. A pair the exchange does not list returns a 404 error (§4). Deribit is the exchange served today, and our teams are working to extend this coverage to further exchanges. History on Kaiko starts on 1 June 2021.

7 Will your values change?

Short answer

The selection rule, the thresholds, the block totals, the sizes and the order are the same. Once the implied volatility is divided by 100, a trade carries the same values on both sides. What changes is the naming and the time format.

- **Same selection:** a trade is kept when the block total clears the threshold of its underlying (5 contracts on `btc` / `usd`, 50 on `eth` / `usd`, 500 on `sol` / `usdc` and `xrp` / `usdc`, 5 elsewhere). The legs of a block trade are judged on the block's total, so a small leg of a large block is kept. There is no top-N cut on either side.
- **Same sizes:** `size_usd` is the USD price times the amount, and each exposure is the option's greek at the trade times the amount, on both sides.
- **Same directions:** `exchange_direction` is the taker side the venue reported. `kaiko_direction` follows the same approach as Amberdata's `amberdataDirection`: it reads the aggressor from the top of book before the

trade (price against bid, ask, mid and mark, and the implied volatilities), it treats the legs of a block trade together, and it falls back to the venue's side when the reading is undecided.

- **Same order:** newest first, then the larger block total, then the block id, then the higher USD price, then the instrument.
- **Units:** Amberdata used percent for the implied volatility, while Kaiko uses decimals (§5). Prices stay in the option's quote currency, USD values stay in USD, and sizes and exposures keep their units.
- **Same default expiry filter:** with no dates, both APIs keep only the options still live now; with explicit dates, both default the filter to the start of the window (§3).
- **Same hedge fields:** the futures leg of a block package comes with the same side, price and size on both sides; only the names change, and the contract takes its Kaiko code (§5, §6). The hedge fields are filled from 30 September 2026.
- **History:** Kaiko's history starts on 1 June 2021. A window before that date returns an empty `data` array.

8 Before / after example

Request (the notable BTC trades of a ten-minute window)

Amberdata

```
GET https://api.amberdata.com
    /markets/derivatives/analytics
    /options-scanner/top-trades
    ?exchange=deribit
    &currency=BTC
    &startDate=2026-10-26T00:00:00
    &endDate=2026-10-26T00:10:00
x-api-key: <your-amberdata-key>
```

Kaiko

```
GET https://api.kaiko.io
    /analytics/trades-flow/top-trades
    ?exchange=drbt
    &base_asset=btc
    &quote_asset=usd
    &start_time=2026-10-26T00:00:00.000Z
    &end_time=2026-10-26T00:10:00.000Z
X-Api-Key: <your-kaiko-key>
```

Response (real responses for the same window, first of two trades shown; the fields are regrouped in the same order on both sides)

Amberdata


```
{
  "status": 200,
  "title": "OK",
  "description": "Successful request",
  "payload": {
    "data": [ {
      "exchange": "deribit",
      "currency": "BTC",
      "exchangeTimestamp": 1792973355295,
      "instrument": "BTC-13NOV26-90000-C",
      "exchangeDirection": "sell",
      "amberdataDirection": "sell",
      "blockTradeId": null,
      "numberOfLegs": null,
      "tradeAmount": 5,
      "blockAmount": 5,
      "tradeIv": 36.4,
      "price": 0.0031,
      "priceUsd": 248.01553099999998,
      "indexPrice": 80005.01,
      "openInterestChange": 5,
      "sizeUSD": 1240.0776549999998,
      "sizeDelta": 0.4455,
      "sizeVega": 144.87185,
      "sizeGamma": 0.0001,
      "sizeTheta": -146.13555,
      "hedgeInstrument": null,
      "hedgeIsBuySide": null,
      "hedgePrice": null,
      "hedgeVolume": null
    },
    ... 1 more row (the 30-contract put) ...
    ],
    "metadata": {
      "api-version": "2023-09-30"
    }
  }
}
```


Kaiko


```
{
  "data": [ {
    "exchange": "drbt",
    "base_asset": "btc",
    "quote_asset": "usd",
    "timestamp": "2026-10-26T00:09:15.295Z",
    "instrument": "btc13nov2690000c",
    "exchange_direction": "sell",
    "kaiko_direction": "sell",
    "block_trade_id": null,
    "number_of_legs": null,
    "trade_amount": 5,
    "block_amount": 5,
    "trade_iv": 0.364,
    "price": 0.0031,
    "price_usd": 248.01553099999998,
    "index_price": 80005.01,
    "open_interest_change": 5,
    "size_usd": 1240.0776549999998,
    "size_delta": 0.4455,
    "size_vega": 144.87185,
    "size_gamma": 0.0001,
    "size_theta": -146.13555,
    "hedge_instrument": null,
    "hedge_is_buy_side": null,
    "hedge_price": null,
    "hedge_volume": null
  },
  ... 1 more row (the 30-contract put) ...
  ],
  "meta": {
    "api_version": "2026-10-01",
    "count": 2,
    "next_url": null,
    "url": "https://api.kaiko.io/analytics/trades-
flow/top-trades?
exchange=drbt&base_asset=btc&quote_asset=usd&start
_time=2026-10-26T00%3A00%3A00.000Z&end_time=2026-1
0-26T00%3A10%3A00.000Z&api_version=2026-10-01"
  }
}
```