Kaiko

MIGRATION GUIDE

Spot Prices

Amberdata → Kaiko

2026

www.kaiko.com

1 At a glance

What these endpoints give you. A time series of reference spot prices aggregated across exchanges. This guide covers both Amberdata pricing endpoints, which map one-to-one onto Kaiko Fair Market Value endpoints that share the same request shape:

Amberdata (today)	Kaiko (new)	Use it for
Pair Price	**Direct Price**	A price built only from trades on that exact pair, across exchanges.
Asset Price	**Synthetic Price**	A price for any asset in any quote currency, routed through the most liquid intermediary pairs.

What changes for you

- The pair or asset moves from a query parameter into the URL path: `instrument=btc_usdc` becomes `/btc/usdc`, and `asset=btc` becomes `/btc/usd`.
- Asset prices are no longer USD-only: put any asset or fiat code in the quote position (e.g. `/btc/eur`).
- `timeInterval` becomes `interval` (`day` → `1d`), and dates become full ISO 8601 timestamps.
- Results are **paginated**: follow `next_url` until it is `null` (see §4). Results are newest-first unless you send `sort=asc`.
- Prices are returned as decimal **strings**, timestamps as Unix milliseconds.
- **Daily values mean something different.** Amberdata's daily price is the price at the start of the day (00:00 UTC); Kaiko's `1d` price is the median of all trades over the day. They can differ by several percent on trending days (see §7).

Coverage & distribution

Data type: Reference spot price (CeFi), aggregated across exchanges
Methodology: Robust Weighted Median (RWM)
Granularity: Any interval from 1 second to 1 day
Packages: Kaiko Fair Market Value [Established Assets] or [Full Coverage], CeFi Spot market type
Distribution: REST API

2 Endpoint & authentication

	Amberdata (today)	Kaiko (new)
Method	GET	GET

Base URL	`https://api.amberdata.com`	`https://us.market-api.kaiko.io`
		`https://eu.market-api.kaiko.io`
		Use the host for your account region.

Path: pair	`/markets/prices/spot/instruments`	`/v2/data/trades.v1/robust_pair_price/{base_asset}/{quote_asset}`

	Amberdata (today)	Kaiko (new)
Path: asset	`/markets/prices/spot/assets`	`/v2/data/trades.v2/spot_exchange_rate/{base_asset}/{quote_asset}`
Auth	API key header `x-api-key`	API key header `X-Api-Key`, plus `Accept: application/json`

3 Request parameters

Pair Price → Direct Price

Amberdata param	Kaiko param	Change	Notes
`instrument` (required)	`{base_asset}` / `{quote_asset}` (path)	RENAMED	Split on the underscore: `btc_usdc` → `/btc/usdc`. Price is in the quote asset.
`timeInterval` (optional)	`interval` (required)	RENAMED	`minute` → `1m`, `hour` → `1h`, `day` → `1d`. Always send it.
`startDate` (optional)	`start_time`	RENAMED	**Inclusive** on both. ISO 8601, e.g. `2026-01-01T00:00:00Z`.
`endDate` (optional)	`end_time`	RENAMED	**Exclusive** on both. ISO 8601.
`timeFormat` (optional)	—	REMOVED	Timestamps are always Unix milliseconds. Format them client-side.
—	`sort`	NEW	`asc` or `desc` (default). Send `asc` for oldest-first.
—	`page_size`	NEW	Points per page; limits depend on interval (§4).
—	`include_exchanges` `exclude_exchanges`	NEW	Restrict the exchanges used. All exchanges by default (§6).
—	`extrapolate_missing_values`	NEW	`true` fills no-trade intervals with the last available price.
—	`enable_price_metrics`	NEW	`true` adds a 99% confidence interval and a stress market indicator.

Asset Price → Synthetic Price

Amberdata param	Kaiko param	Change	Notes
`asset` (required)	`{base_asset}` (path)	RENAMED	`asset=btc` → `/btc/…`
— (always USD)	`{quote_asset}` (path)	NEW	Use `usd` to match Amberdata, or any other asset or fiat code.

Amberdata param	Kaiko param	Change	Notes
`timeInterval` (optional)	`interval` (optional)	RENAMED	`minute` → `1m`, `hour` → `1h`, `day` → `1d` (default on both).
`startDate` / `endDate`	`start_time` / `end_time`	RENAMED	Start inclusive, end exclusive on both. ISO 8601.
`timeFormat` (optional)	—	REMOVED	Timestamps are always Unix milliseconds.
—	`sources`	NEW	`true` returns the intermediary pair prices used in the calculation.
—	`sort`, `page_size`, `include_exchanges`, `exclude_exchanges`, `extrapolate_missing_values`, `enable_price_metrics`	NEW	Same behaviour as on Direct Price (above).

4 Response envelope & metadata

The fields around the data, the wrapper your parser reads before reaching the numbers. This envelope is **identical on every Amberdata endpoint**, and identical on both Kaiko price endpoints.

Amberdata field	Kaiko field	Change	Notes
`status`	HTTP status code	RENAMED	Read the HTTP status. The body also carries `result`: `"success"`.
`title`	—	REMOVED	"OK" label, no direct Kaiko equivalent.
`description`	—	REMOVED	Free-text status description.
`payload.data`	`data`	RENAMED	**Array** of price points, now at the top level (see §5).
`payload.metadata`	`query`	RENAMED	Echo of your request, including `base_asset`, `quote_asset`, `interval` and `data_version` (replaces `api-version`). `instruments` lists the exchange markets used, e.g. `cbse:spot:btc-usd`.
—	`next_url` `continuation_token`	NEW	Next page of results. `next_url` is `null` on the last page.
—	`time` / `timestamp`	NEW	Server response time. `timestamp` is Unix **seconds** on Direct Price and **milliseconds** on Synthetic Price.
—	`access`	NEW	The date range your subscription can access (`access_range`, `data_range`).

Pagination

Amberdata returns the whole range in one response. Kaiko returns pages: call `next_url` as-is (it carries your original parameters) until it is `null`. Set `page_size` to the maximum for your interval:

1m or less: default 10, maximum 100

Over 1m, up to 1h: default 4, maximum 10

Over 1h (e.g. 1d): default 1, maximum 4

5 Response data fields

Pair Price → Direct Price

Amberdata field	Kaiko field	Type	Change	Notes
`timestamp`	`timestamp`	integer	RENAMED	Same name, new format: `2026-11-14 00:00:00 000` becomes `1794614400000` (Unix ms). Both mark the **start** of the interval.
`priceUSD`	`price`	string	RENAMED	Decimal string, in units of the quote asset. Parse with a decimal type. `null` if no trades.
`volumeAsset`	`volume`	string	RENAMED	Base asset volume traded in the interval.
`instrument`	`query.base_asset` `query.quote_asset`	string	RENAMED	Echoed once per response, not on each record.
`arcInstrumentId`	—	string	REMOVED	Key your records on base/quote codes instead.
—	`count`	integer	NEW	Number of trades in the interval.
—	`extrapolate_missing_values`	boolean	NEW	`true` when the value was carried forward from the last price.
—	`price_metrics`	object	NEW	Only with `enable_price_metrics=true`: `ci_left`, `ci_right`, `stress_market_indicator`.

Asset Price → Synthetic Price

Amberdata field	Kaiko field	Type	Change	Notes
`timestamp`	`timestamp`	integer	RENAMED	Unix milliseconds instead of a formatted string. Both mark the start of the interval.
`priceUSD`	`price`	string	RENAMED	Decimal string in the quote asset; a USD price when the quote is `usd`.

Amberdata field	Kaiko field	Type	Change	Notes
`volumeAsset`	—	number	REMOVED	No volume on Synthetic Price. Amberdata's figure is asset-wide, across all pairs (about 207,000 BTC a day vs about 36,000 on BTC/USD alone). The closest Kaiko equivalent is to sum Direct Price `volume` over the pairs you need.
`asset`	`query.base_asset`	string	RENAMED	Echoed once per response.
`assetArcId`	—	string	REMOVED	Key your records on asset codes instead.
—	`extrapolated`	boolean	NEW	`true` when the value was carried forward from the last price.
—	`price_metrics`	object	NEW	Only with `enable_price_metrics=true`.

6 Exchange & venue names

Neither Amberdata pricing endpoint takes an exchange parameter, and Kaiko uses all covered exchanges by default, so **no change is required**. If you want to restrict the venues behind a price, pass Kaiko exchange codes in `include_exchanges` or `exclude_exchanges`:

Amberdata name	Kaiko code	Exchange
`gdax`	`cbse`	Coinbase
`binance`	`binc`	Binance
`kraken`	`krkn`	Kraken
`bitstamp`	`stmp`	Bitstamp
`gemini`	`gmni`	Gemini
`okex`	`okex`	OKX
`bithumb`	`bthb`	Bithumb
`poloniex`	`polo`	Poloniex

Pair format also changes: `btc_usdc` (Amberdata query parameter) → `/btc/usdc` (Kaiko path).

7 Will your values change?

Short answer

Yes for daily data, because the two daily values measure different things. Amberdata's daily price is the market price **at the start of the day** (00:00 UTC). Kaiko's `1d` price is the **Robust Weighted Median of every trade during the day**.

- **To reproduce Amberdata's daily value.** Request a short interval from 00:00 UTC, e.g. `interval=1m`, `start_time=2026-11-14T00:00:00Z`, `end_time=2026-11-14T00:05:00Z`, `sort=asc`, and use the first point.

- **To keep Kaiko's daily median.** Use `interval=1d` as shown in §8. It reflects the whole day's trading and is robust to outlier trades and venues. Agree internally which definition your reports need before cutting over.
- **Methodology.** Kaiko aggregates with a Robust Weighted Median; see the Kaiko Pricing Services Methodology.
- **Exchange set.** The exchanges included by default can differ between the two platforms. Use `include_exchanges` or `exclude_exchanges` to align them.
- **Synthetic routing.** Synthetic Price follows the path of highest liquidity through intermediary assets (e.g. USDT). The path is recalculated every 4 hours; send `sources=true` to see it.
- **Intervals with no trades.** Kaiko returns `price: null` when an interval had no trades. Send `extrapolate_missing_values=true` to carry the last price forward, or use Synthetic Price for illiquid pairs.
- **Precision.** Kaiko prices are decimal strings. Parse them with a decimal type rather than a float.

8 Before / after example

Pair Price → Direct Price: request

Amberdata

```
GET /markets/prices/spot/instruments
    ?instrument=btc_usd
    &timeInterval=day
    &startDate=2026-11-13
    &endDate=2026-11-15
x-api-key: <your-key>
```

Kaiko

```
GET /v2/data/trades.v1
    /robust_pair_price/btc/usd
    ?interval=1d
    &start_time=2026-11-13T00:00:00Z
    &end_time=2026-11-15T00:00:00Z
    &page_size=4
X-Api-Key: <your-key>
```

Pair Price → Direct Price: response (real responses, abridged; BTC/USD, Nov 13–14 2026)

Amberdata


```
{
  "status": 200,
  "title": "OK",
  "description": "Successful request",
  "payload": {
    "data": [
      {
        "arcInstrumentId":
          "AMB:BTC000000000_AMB:USD000000949",
        "instrument": "btc_usd",
        "priceUSD": 68302.30646234794,
        "timestamp": "2026-11-14 00:00:00 000",
        "volumeAsset": 35534.754831759994
      },
      {
        "arcInstrumentId":
          "AMB:BTC000000000_AMB:USD000000949",
        "instrument": "btc_usd",
        "priceUSD": 71372.03973139764,
        "timestamp": "2026-11-13 00:00:00 000",
        "volumeAsset": 36359.55188359001
      }
    ],
    "metadata": {
      "api-version": "2023-09-30"
    }
  }
}
```


Kaiko


```
{
  "query": {
    "base_asset": "btc",
    "quote_asset": "usd",
    "interval": "1d",
    "sort": "desc",
    "page_size": 4,
    "data_version": "v1",
    "instruments": [
      "binc:spot:btc-usd",
      "cbse:spot:btc-usd",
      "krkn:spot:btc-usd", …
    ], …
  },
  "time": "2026-11-15T23:48:21.749Z",
  "timestamp": 1794786501,
  "data": [
    {
      "timestamp": 1794614400000,
      "price": "65951.33311004887",
      "volume": "37323.42613839989",
      "count": 4749624,
      "extrapolate_missing_values": false
    },
    {
      "timestamp": 1794528000000,
      "price": "68881.12145874258",
      "volume": "37918.94684739004",
      "count": 2835958,
      "extrapolate_missing_values": false
    }
  ],
  "result": "success",
  "access": { … }
}
```


Asset Price → Synthetic Price: request

Amberdata

```
GET /markets/prices/spot/assets
    ?asset=btc
    &timeInterval=day
    &startDate=2026-11-13
    &endDate=2026-11-15
x-api-key: <your-key>
```

Kaiko

```
GET /v2/data/trades.v2
    /spot_exchange_rate/btc/usd
    ?interval=1d
    &start_time=2026-11-13T00:00:00Z
    &end_time=2026-11-15T00:00:00Z
    &page_size=4
X-Api-Key: <your-key>
```

Asset Price → Synthetic Price: response (real responses, abridged; BTC/USD, Nov 13–14 2026)

Amberdata


```
{
  "status": 200,
  "title": "OK",
  "description": "Successful request",
  "payload": {
    "data": [
      {
        "asset": "btc",
        "assetArcId": "AMB:BTC000000000",
        "priceUSD": 68347.04934155874,
        "timestamp": "2026-11-14 00:00:00 000",
        "volumeAsset": 207272.72870642794
      },
      {
        "asset": "btc",
        "assetArcId": "AMB:BTC000000000",
        "priceUSD": 71425.07197209667,
        "timestamp": "2026-11-13 00:00:00 000",
        "volumeAsset": 202335.3468467897
      }
    ],
    "metadata": {
      "api-version": "2023-09-30"
    }
  }
}
```


Kaiko


```
{
  "query": {
    "base_asset": "btc",
    "quote_asset": "usd",
    "interval": "1d",
    "sort": "desc",
    "sources": false,
    "instruments": [
      "cbse:spot:btc-usd",
      "binc:spot:btc-usdt",
      "krkn:spot:usdt-usd", …
    ],
    "start_timestamp": 1794528000000,
    "end_timestamp": 1794700800000, …
  },
  "time": "2026-11-15T23:41:38.889Z",
  "timestamp": 1794786098889,
  "data": [
    {
      "timestamp": 1794614400000,
      "price": "65951.33311004887",
      "extrapolated": false
    },
    {
      "timestamp": 1794528000000,
      "price": "68887.91847028212",
      "extrapolated": false
    }
  ],
  "result": "success",
  "access": { … }
}
```