



CoinDesk Indices x CoinDesk Data API Migration Guide (updated Apr 29, 2025)

The following pages are intended to help CoinDesk Indices clients migrate from the CoinDesk API to the CoinDesk Data API. Endpoints have been paired with their suitable CoinDesk Data counterpart and in each case a reference mapping table for request parameters and response fields has been provided to demonstrate how to access the data previously found on the CoinDesk API

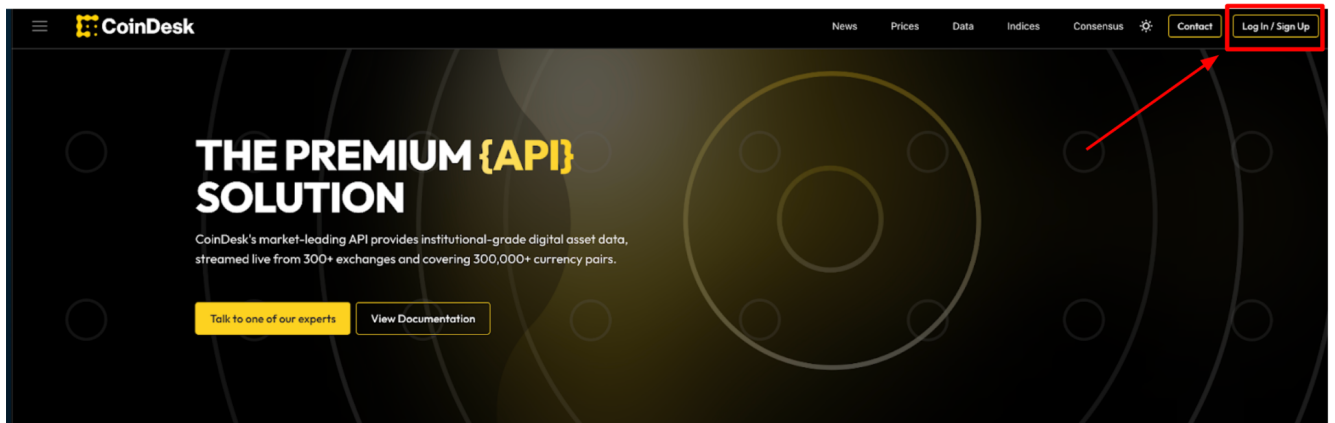
Table of Contents

CoinDesk Data/CryptoCompare Account Creation.....	2
Market Names.....	4
Ticks.....	6
Candles.....	8
SDA Constituents.....	11
Index Websocket.....	19
MDA Constituents.....	21
Additional Endpoints.....	25
Helpful Tips When Accessing the CoinDesk Data API.....	26

CoinDesk Data/CryptoCompare Account Creation

Registration:

Go to <https://developers.coindesk.com/> and click “Log In / Sign Up”



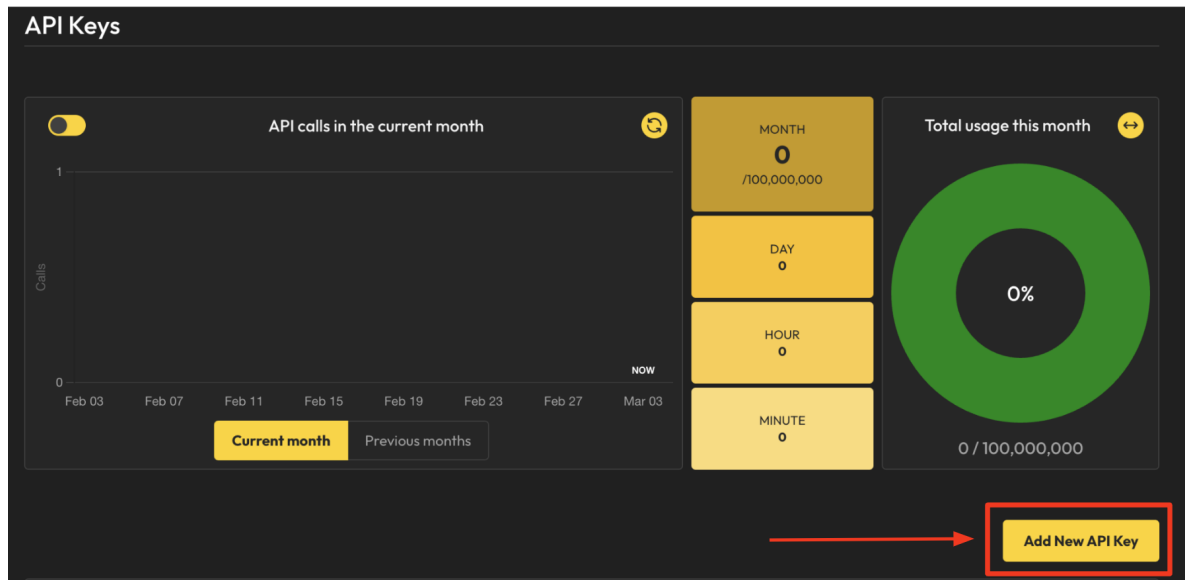
If possible we recommend using a shared company email address (eg index-ops@example.com) to sign up, otherwise you might prefer to use the email address of the user who will manage the technical implementation.

Once your account has been created and verified, let your CoinDesk Indices sales representative know the email address you have used so they can apply a suitable subscription and permissioning, or send that information to sales@coindesk-indices.com.

With the permissions applied you will gain full access to tick and historical OHLCV data for the necessary reference rates and spot markets via the CoinDesk Data REST API and Websockets. If you find a data set you do not have access to but would be interested in using please reach out to your sales representative for further information.

API Key Generation

Go to <https://developers.coindesk.com/settings/api-keys>, click “ADD NEW API KEY”, enter a key name and select “Read All Price Streaming and Polling Endpoints” before clicking “Add API Key”.



1

Calls

0

Feb 03 Feb 07 Feb 11 Feb 15 Feb 19 Feb 23 Feb 27 Mar 03

Current month

Previous months

NOW

➡️

Add New API Key

Create New API Key

×

Api Key Name

Test Key

☒

Read All Price Streaming and Polling Endpoints
 Access to all the price related endpoints available on your subscription. Some permissions will be limited by user roles that are based on subscriptions.

☐

Read/Write All
 USE WITH CARE. Access to all account related data, CAN also be used to delete a user or to access all other keys.

Cancel

Add API Key

Market Names

Every index is associated with a market name. The market name needs to be specified in the different endpoints in order to access the index data. Find below the list of indices and the market names associated with each of them.

API Instrument	Index Name	Index Market	Constituent Reference Rate Market
XBX-USD	CoinDesk Bitcoin Price Index	sda	n/a
XBXE-USD	CoinDesk Bitcoin Price Index - Exchange Variant	sda	n/a
ETX-USD	CoinDesk Ether Price Index	sda	n/a
BTX-USD	CoinDesk Basic Attention Token Price Index	sda	n/a
BCX-USD	CoinDesk Bitcoin Cash Price Index	sda	n/a
ADX-USD	CoinDesk Cardano Price Index	sda	n/a
LNK-USD	CoinDesk Chainlink Price Index	sda	n/a
EOSX-USD	CoinDesk EOS Price Index	sda	n/a
ECX-USD	CoinDesk Ether Classic Price Index	sda	n/a
LTX-USD	CoinDesk Litecoin Price Index	sda	n/a
XLMX-USD	CoinDesk Lumens Price Index	sda	n/a
SLX-USD	CoinDesk Solana Price Index	sda	n/a
XTX-USD	CoinDesk Tezos Price Index	sda	n/a
UNX-USD	CoinDesk Uniswap Price Index	sda	n/a
XRX-USD	CoinDesk XRP Price Index	sda	n/a
ZCX-USD	CoinDesk Zcash Price Index	sda	n/a
CD20-USD	CoinDesk 20 Index	cd_mc	ccixberwap
CD20SPOT-USD	CoinDesk 20 Spot Index	cd_mc	ccixber
CMI-USD	CoinDesk Market Index	cd_mc	rr_vwap
CMIP-USD	CoinDesk Market Plus Stablecoin Index	cd_mc	rr_vwap
CPU-USD	CoinDesk Computing Index	cd_mc	rr_vwap
CNE-USD	CoinDesk Culture & Entertainment Index	cd_mc	rr_vwap
CCY-USD	CoinDesk Currency Index	cd_mc	rr_vwap

DCF-USD	CoinDesk DeFi Index	cd_mc	rr_vwap
DTZ-USD	CoinDesk Digitization Index	cd_mc	rr_vwap
SMT-USD	CoinDesk Smart Contract Platform Index	cd_mc	rr_vwap
CSC-USD	CoinDesk Stablecoin Index	cd_mc	rr_vwap
DLCS-USD	CoinDesk Large Cap Select Index	cd_mc	rr_vwap
CMIS-USD	CoinDesk Market Select Index	cd_mc	rr_vwap
CPUS-USD	CoinDesk Computing Select Index	cd_mc	rr_vwap
CNES-USD	CoinDesk Culture & Entertainment Select Index	cd_mc	rr_vwap
CCYX-USD	CoinDesk Currency Select Ex Bitcoin Index	cd_mc	rr_vwap
CCYS-USD	CoinDesk Currency Select Index	cd_mc	rr_vwap
DFX-USD	CoinDesk DeFi Select Index	cd_mc	rr_vwap
SCPX-USD	CoinDesk Smart Contract Platform Select Index	cd_mc	rr_vwap
SCPXX-USD	CoinDesk Smart Contract Platform Select Ex ETH Index	cd_mc	rr_vwap
MTVS-USD	CoinDesk Metaverse Select Index	cd_mc	rr_vwap
ETXTR-USD	CoinDesk Ether Total Return Index	cditr	
CESR-ETH	Composte Ether Staking Rate	cdisr	
BTIAMINA-USD	AMINA CoinDesk BTC Momentum Index	cdiamina	
BFIC-USD	CoinDesk Bitcoin Futures Excess Return Index	cdifr	
BTIUSF-USD	CoinDesk Bitcoin Trend Indicator Futures Index	cdifti	
BTIS1-USD	CoinDesk Bitcoin Trend Indicator Series 1 Index	cditis	
ETIS1-USD	CoinDesk Ether Trend Indicator Series 1 Index	cditis	
BTI-USD	Bitcoin Trend Indicator	cdi_ti	
ETI-USD	Ether Trend Indicator	cdi_ti	

Ticks

CoinDesk Indices

CoinDesk Endpoint Example:

<https://api.coindesk-indices.com/v3.0/ticks/sda?ticker=xbx&ccy1=xbt&ccy2=usd&limit=100&start=1733834653>

CoinDesk Documentation:

<https://client.coindesk-indices.com/authorized/docs/ticks>

CoinDesk Response:

```
{
  "ts": 1733754905,
  "price": 97421.0339793763
}
```

CoinDesk Data

CoinDesk Data Endpoint Example (By Timestamp):

https://data-api.coindesk.com/index/cc/v2/historical/messages?market=sda&instrument=XB X-USD&after_ts=1734350484&limit=100&groups=MESSAGE

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v2_historical_messages

CoinDesk Data Response:

```
{
  "Data": [
    {
      "TIMESTAMP": 1733834653,
      "TIMESTAMP_NS": 0,
      "VALUE": 97085.5184276899,
      "QUANTITY": 1.4808583499999999,
      "QUOTE_QUANTITY": 143739.3876310679,
      "CCSEQ": 1021399
    }
  ],
  "Err": {}
}
```

Parameter Mappings:

CDI Parameter	CoinDesk Data Parameter	CDI Example	CoinDesk Data Example
-	market	-	sda

ticker	instrument	xbx	XBX-USD
ccy1	N/A Included in "instrument"	xbt	-
ccy2	N/A Included in "instrument"	usd	-
start	after_ts	1733834653	1733834653
limit	limit	1	1

Response Field Mapping Examples:

CDI Field	CoinDesk Data Field
ts	TIMESTAMP
price	VALUE

Notes

- CCSEQ is a unique consecutive ID applied to each update message.

Candles

CoinDesk Indices

CoinDesk Endpoint Example:

<https://api.coindesk-indices.com/v3.0/ohlc/sda?ticker=xbx&ccy1=xbt&ccy2=usd&interval=1440&limit=2> + key

CoinDesk Documentation:

<https://client.coindesk-indices.com/authorized/docs/ohlc-endpoints>

CoinDesk Response

```
[
  {
    "t": 1733702400.0,
    "o": 101198.94493053804,
    "h": 101269.97023322771,
    "l": 97980.32150912641,
    "c": 98232.33898761954,
    "v": 0
  }
]
```

CoinDesk Data

CoinDesk Data Endpoint Example (Days):

<https://data-api.coindesk.com/index/cc/v1/historical/days?market=sda&instrument=XBX-US&limit=2&groups=OHLC,VOLUME>

CoinDesk Data Endpoint Example (Hours):

<https://data-api.coindesk.com/index/cc/v1/historical/hours?market=sda&instrument=XBX-US&limit=2&groups=OHLC,VOLUME>

CoinDesk Data Endpoint Example (Minutes):

<https://data-api.coindesk.com/index/cc/v1/historical/minutes?market=sda&instrument=XBX-USD&limit=2&groups=OHLC,VOLUME>

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v1_historical_days

CoinDesk Data Response:

```
{
  "Data": [
    {
      "UNIT": "DAY",

```

```

    "TIMESTAMP": 1733702400,
    "OPEN": 101201.80157369,
    "HIGH": 101275.077916136,
    "LOW": 97970.8887314132,
    "CLOSE": 98636.4424698433,
    "VOLUME": 25058.82407513,
    "QUOTE_VOLUME": 2487700176.65886
  }
],
  "Err": {}
}

```

Parameter Mappings:

CDI Parameter	CoinDesk Data Parameter	CDI Example	CoinDesk Data Example
-	market	-	sda
ticker	instrument	xbx	XBX-USD
ccy1	N/A Included in "instrument"	xbt	-
ccy2	N/A Included in "instrument"	usd	-
interval	aggregate	1440	1
limit	limit	1	1

Response Field Mappings:

CDI Field	CoinDesk Data Field
t	TIMESTAMP
o	OPEN
h	HIGH
l	LOW
c	CLOSE
v	VOLUME

Notes

- Please note the OPEN value will always correspond to the previous CLOSE value (in order to ensure linked candles. For the first update price of the request period remove the “groups” filters and use the “FIRST_MESSAGE_VALUE” response field. Also note that for some candles the HIGH and LOW value can be equal to the OPEN value, which corresponds to the previous candle. To always get the high and low values from the current candle you can use “HIGH_MESSAGE_VALUE” and “LOW_MESSAGE_VALUE”.

SDA Constituents

CoinDesk Indices

The CoinDesk Indices Endpoint Example provides a snapshot of the SDA constituent's with entries for their prices, volumes and weights for either the most recent update or an update based on the requested timestamp.

CoinDesk Endpoint Example:

<https://api.coindesk-indices.com/v3.0/constituents/sda?ticker=xbx&ccy1=xbt&ccy2=usd> + key

CoinDesk Documentation:

<https://client.coindesk-indices.com/authorized/docs/constituents>

CoinDesk Response:

```
{
  "price": {
    "crpt-xbt-usd": 98096.0,
    "base-xbt-usd": 98078.02,
    "stmp-xbt-usd": 98064.0,
    "bull-xbt-usd": 98080.4,
    "krkn-xbt-usd": 98100.1,
    "lmax-xbt-usd": 98083.25
  },
  "volume": {
    "crpt-xbt-usd": 43380.81084,
    "base-xbt-usd": 26910.26545019,
    "stmp-xbt-usd": 4909.922806730001,
    "bull-xbt-usd": 3452.37964831,
    "krkn-xbt-usd": 5146.69769328,
    "lmax-xbt-usd": 5750.43
  },
  "weights": {
    "crpt-xbt-usd": 0.48272447300847393,
    "base-xbt-usd": 0.3013027004340845,
    "stmp-xbt-usd": 0.05487213745352298,
    "bull-xbt-usd": 0.03868118778934501,
    "krkn-xbt-usd": 0.058158449952348625,
    "lmax-xbt-usd": 0.0642610513622248
  },
  "timestamp": 1733484556
}
```

CoinDesk Data (Historical Update Constituents)

For constituents of historical index updates use the CoinDesk Data Indices & Reference Rates Index Updates endpoints with the "groups" parameter set to or

including “COMPONENTS”. Historical updates can be requested by timestamp (returning a given number of updates after the requested timestamp) or by hour (returning all updates for that hour, eg HH:00 to HH:59). Both endpoints return an array of updates.

Updates By Hour

CoinDesk Data Endpoint Example (Index Updates Full Hour):

https://data-api.coindesk.com/index/cc/v2/historical/messages/hour?market=sda&instrument=XBX-USD&hour_ts=1741014000&groups=MESSAGE,COMPONENTS

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v2_historical_messages_hour

CoinDesk Data Response:

```
{
  "Data": [
    {
      "COMPONENTS": {
        "706~{bitstamp~btcusd}": {
          "MARKET": "bitstamp",
          "INSTRUMENT": "btcusd",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 94582,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 2461.9161437,
          "WEIGHT": 0.00696815912375872
        },
        "706~{bullish~BTCUSD}": {
          "MARKET": "bullish",
          "INSTRUMENT": "BTCUSD",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 94511.3309,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 3771.58349763,
          "WEIGHT": 0.0626960492480746
        },
        "706~{coinbase~BTC-USD}": {
          "MARKET": "coinbase",
          "INSTRUMENT": "BTC-USD",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 94498.46,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 24104.42569618,
          "WEIGHT": 0.0885386259111425
        },
        "706~{cryptodotcom~BTC_USD}": {
          "MARKET": "cryptodotcom",
          "INSTRUMENT": "BTC_USD",
          "MAPPED_INSTRUMENT": "BTC-USD",
```

```

    "PRICE": 94520.01,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 43199.21256,
    "WEIGHT": 0.718112156297675
  },
  "706~{kraken~XXBTZUSD}": {
    "MARKET": "kraken",
    "INSTRUMENT": "XXBTZUSD",
    "MAPPED_INSTRUMENT": "BTC-USD",
    "PRICE": 94541.4,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 3190.98425675,
    "WEIGHT": 0.0530445915453667
  },
  "706~{lmax~BTC_USD}": {
    "MARKET": "lmax",
    "INSTRUMENT": "BTC_USD",
    "MAPPED_INSTRUMENT": "BTC-USD",
    "PRICE": 94518.5,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 4249.49,
    "WEIGHT": 0.0706404178739828
  }
}
]
}

```

Parameter Mappings:

CDI Parameter	CoinDesk Data Parameter	CDI Example	CoinDesk Data Example
-	market	-	sda
ticker	instrument	xbx	XBX-USD
ccy1	N/A Included in "instrument"	xbt	-
ccy2	N/A Included in "instrument"	usd	-
timestamp	hour_ts	1733853600	1733853600

Response Field Mappings:

CDI Field	CoinDesk Data Field
price -> {constituent}	COMPONENTS -> {constituent} -> PRICE
volume	COMPONENTS -> {constituent} -> CALCULATED_MOVING_24_HOUR_VOLUME"

weight	COMPONENTS -> {constituent} -> WEIGHT
--------	---------------------------------------

Updates By Timestamp

CoinDesk Data Endpoint Example (By Timestamp):

https://data-api.ccddata.io/index/cc/v2/historical/messages?market=sda&instrument=XBX-US&after_ts=1734350484&limit=5&groups=MESSAGE.COMPONENTS

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v2_historical_messages

CoinDesk Data Response:

```
{
  "Data": [
    {
      "COMPONENTS": {
        "706~{bitstamp~btcusd}": {
          "MARKET": "bitstamp",
          "INSTRUMENT": "btcusd",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 94582,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 2461.9161437,
          "WEIGHT": 0.00696815912375872
        },
        "706~{bullish~BTCUSD}": {
          "MARKET": "bullish",
          "INSTRUMENT": "BTCUSD",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 94511.3309,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 3771.58349763,
          "WEIGHT": 0.0626960492480746
        },
        "706~{coinbase~BTC-USD}": {
          "MARKET": "coinbase",
          "INSTRUMENT": "BTC-USD",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 94498.46,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 24104.42569618,
          "WEIGHT": 0.0885386259111425
        },
        "706~{cryptodotcom~BTC_USD}": {
          "MARKET": "cryptodotcom",
          "INSTRUMENT": "BTC_USD",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 94520.01,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 43199.21256,
          "WEIGHT": 0.718112156297675
        }
      ]
    }
  ]
}
```

```

    "706~{kraken~XXBTZUSD}": {
      "MARKET": "kraken",
      "INSTRUMENT": "XXBTZUSD",
      "MAPPED_INSTRUMENT": "BTC-USD",
      "PRICE": 94541.4,
      "CALCULATED_MOVING_24_HOUR_VOLUME": 3190.98425675,
      "WEIGHT": 0.0530445915453667
    },
    "706~{lmax~BTC_USD}": {
      "MARKET": "lmax",
      "INSTRUMENT": "BTC_USD",
      "MAPPED_INSTRUMENT": "BTC-USD",
      "PRICE": 94518.5,
      "CALCULATED_MOVING_24_HOUR_VOLUME": 4249.49,
      "WEIGHT": 0.0706404178739828
    }
  ]
}

```

Parameter Mappings:

CDI Parameter	CoinDesk Data Parameter	CDI Example	CoinDesk Data Example
-	market	-	sda
ticker	instrument	xbx	XBX-USD
ccy1	N/A Included in "instrument"	xbt	-
ccy2	N/A Included in "instrument"	usd	-
timestamp	after_ts	1733853600	1733853600

Response Field Mappings:

CDI Field	CoinDesk Data Field
price -> {constituent}	COMPONENTS -> {constituent} -> PRICE
volume	COMPONENTS -> {constituent} -> CALCULATED_MOVING_24_HOUR_VOLUME"
weight	COMPONENTS -> {constituent} -> WEIGHT

CoinDesk Data (Latest Update Constituents)

For the “latest” update please use the CoinDesk Data Indices & Reference Rates Metadata endpoint. The response contains a “LAST_INDEX_UPDATE_FROM_CALCULATED” object which includes a components object. Please note that due to internal system caching the update message in this response may have occurred a maximum of 2 minutes prior to the request.

CoinDesk Data Endpoint Example (Latest Constituents):

https://data-api.coindesk.com/index/cc/v1/latest/instrument/metadata?market=sda&instruments=XBX-USD&apply_mapping=true

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v1_latest_instrument_metadata

CoinDesk Data Response:

```
"Data": {
  "XBX-USD": {
    ...
    "LAST_INDEX_UPDATE_FROM_CALCULATED": {
      "TYPE": "2014",
      "MARKET": "sda",
      "INSTRUMENT": "XBX-USD",
      "TIMESTAMP": 1733487900,
      "TIMESTAMP_NS": 0,
      "VALUE": 98216.9061707806,
      "QUANTITY": 0.01309186,
      "QUOTE_QUANTITY": 1285.4734091046,
      "STATUS": "VALID",
      "COMPONENTS": {
        "706~{bitstamp~btcusd}": {
          "MARKET": "bitstamp",
          "INSTRUMENT": "btcusd",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 98200,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 4785.26699818,
          "WEIGHT": 0.0664342054987995
        },
        "706~{bullish~BTCUSD}": {
          "MARKET": "bullish",
          "INSTRUMENT": "BTCUSD",
          "MAPPED_INSTRUMENT": "BTC-USD",
          "PRICE": 98190.0963,
          "CALCULATED_MOVING_24_HOUR_VOLUME": 3429.28693403,
          "WEIGHT": 0.0476770117354195
        },
        "706~{coinbase~BTC-USD}": {
          "MARKET": "coinbase",
          "INSTRUMENT": "BTC-USD",
```

```

    "MAPPED_INSTRUMENT": "BTC-USD",
    "PRICE": 98195.72,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 26523.48523319,
    "WEIGHT": 0.224905917662236
  },
  "706~{cryptodotcom~BTC_USD}": {
    "MARKET": "cryptodotcom",
    "INSTRUMENT": "BTC_USD",
    "MAPPED_INSTRUMENT": "BTC-USD",
    "PRICE": 98215.99,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 42308.0693,
    "WEIGHT": 0.588204590436116
  },
  "706~{kraken~XXBTZUSD}": {
    "MARKET": "kraken",
    "INSTRUMENT": "XXBTZUSD",
    "MAPPED_INSTRUMENT": "BTC-USD",
    "PRICE": 98224.1,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 4996.56878482,
    "WEIGHT": 0.0694667647162271
  },
  "706~{lmax~BTC_USD}": {
    "MARKET": "lmax",
    "INSTRUMENT": "BTC_USD",
    "MAPPED_INSTRUMENT": "BTC-USD",
    "PRICE": 98240.5,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 5721.95,
    "WEIGHT": 0.00331150995120132
  }
},

```

Parameter Mappings:

CDI Parameter	CoinDesk Data Parameter	CDI Example	CoinDesk Data Example
-	market	-	sda
ticker	instrument	xbx	XBX-USD
ccy1	N/A Included in "instrument"	xbt	-
ccy2	N/A Included in "instrument"	usd	-

Response Field Mappings:

CDI Field	CoinDesk Data Field
price -> {constituent}	{instrument} -> LAST_INDEX_UPDATE_FROM_CALCULATED -> COMPONENTS -> {constituent} -> PRICE
volume -> {constituent}	{instrument} -> LAST_INDEX_UPDATE_FROM_CALCULATED -> COMPONENTS -> {constituent} -> CALCULATED_MOVING_24_HOUR_VOLUME"
weights -> {constituent}	{instrument} -> LAST_INDEX_UPDATE_FROM_CALCULATED -> COMPONENTS -> {constituent} -> WEIGHT

Index Websocket

CoinDesk Indices

The CoinDesk Indices Websocket provides an aggregated feed of all available markets.

CoinDesk Endpoint Example:

`wss://socket.coindesk-indices.com/json/{ClientKey}`

CoinDesk Documentation:

<https://client.coindesk-indices.com/authorized/docs/wss-api>

CoinDesk WS Message:

```
{ "time": 1503676383, "pair": 'XBT/USD', "market": "IXBX", "price": 4417.46, "size": 0, "currency": "USD", "type": 2 }
```

CoinDesk Data

The CoinDesk Data websocket allows users to connect and send subscription messages which add or remove data feeds from the websocket connection. Users have the option to control which markets to listen to as well as which response fields to receive.

CoinDesk Data Endpoint Example:

`wss://data-streamer.coindesk.com?api_key={API_KEY}`

CoinDesk Data Subscription Message example:

```
{
  "action": "SUBSCRIBE",
  "type": "index_cc_v1_latest_tick",
  "groups": [
    "VALUE",
    "LAST_UPDATE"
  ],
  "market": "sda",
  "instruments": [
    "XBX-USD"
  ]
}
```

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-streamer/index_cc_v1_latest_tick_active_inclusion_methodology

CoinDesk Data Message:

```
{
  TYPE:"2019"
  INSTRUMENT:"XBX-USD"
  CCSEQ:1104910
  MARKET:"sda"
  VALUE:98795.6421045598
  VALUE_FLAG:"UP"
  VALUE_LAST_UPDATE_TS:1733926019
  VALUE_LAST_UPDATE_TS_NS:0
  LAST_UPDATE_QUANTITY:0.5878662699999998
  LAST_UPDATE_QUOTE_QUANTITY:58073.469366507496
  LAST_UPDATE_CCSEQ:1112765
}
```

Response Field Mappings:

CDI Field	CoinDesk Data Field
time	VALUE_LAST_UPDATE_TS
pair	INSTRUMENT
market	-
price	VALUE
size	LAST_UPDATE_QUANTITY
currency	-

Notes

- By default the CoinDesk Data data-api websocket allows a maximum of 100 subscriptions per connection. Multiple connections can be opened in order to access more than 100 subscriptions concurrently.
- Please be sure to read the “Managing Rate Limits and Sessions” section of the websockets documentation page to ensure you are following best practices for maintaining connections. Frequent misuse or disconnection/reconnection cycles can result in rate limiting which may impact your experience.

MDA Constituents

CoinDesk Indices

The CoinDesk Indices Endpoint Example provides a snapshot of the MDA constituents with entries for their prices, volumes, weights and supplies for either the most recent update or an update based on the requested timestamp.

CoinDesk Endpoint Example:

<https://api.coindesk-indices.com/v3.0/constituents/mda?ticker=cd20&ccy1=cd20&ccy2=usd>
+ key

CoinDesk Documentation:

<https://client.coindesk-indices.com/authorized/docs/constituents>

CoinDesk Response:

```
{
  "price": {
    "tbrr-xbt-usd": 95954.0249187767,
    "tbrr-eth-usd": 3368.04829337903,
    "tbrr-sol-usd": 197.49542192023,
    ... },
  "volume": {
    "tbrr-xbt-usd": 3604312345484.39,
    "tbrr-eth-usd": 2768514215896.38,
    "tbrr-sol-usd": 229109609207.605,
    ... },
  "weights": {
    "tbrr-xbt-usd": 0.266207664333086,
    "tbrr-eth-usd": 0.152813226754255,
    "tbrr-sol-usd": 0.142007524995369,
    ... },
  "supplies": {
    "tbrr-xbt-usd": 1808510,
    "tbrr-eth-usd": 29576460,
    "tbrr-sol-usd": 468724745,
    ... },
  "timestamp": 1736328231
}
```

CoinDesk Data (Composition)

CoinDesk Data has developed a composition endpoint. The index composition endpoint returns the index value and divisor for a multi digital asset index along with its underlying constituent prices, supplies, adjustment factors, volumes, and weights. The endpoint returns these values each day for the close of the specified hour and timezone.

The endpoint will become available to test upon request the week of the 28th of April. Indices included in the cd_mc market will be available under the cdmcddev market during the testing period.

CoinDesk Data Endpoint Example:

https://data-api.coindesk.com/index/cc/v1/historical/days/composition?market=cdmcddev&instruments=CD20-USD&timezone=Europe/London&close_time=16:00&date=2025-04-17

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v1_historical_days_composition

CoinDesk Data Response:

```
{
  "TYPE": "2074",
  "MARKET": "cdmcddev",
  "INSTRUMENT": "CD20SPOT-USD",
  "TIMESTAMP": 1744895755,
  "TIMESTAMP_NS": 0,
  "VALUE": 2462.42942435624,
  "DIVISOR": 239018556.9862696,
  "STATUS": "VALID",
  "CCSEQ": 398,
  "COMPONENTS": [
    {
      "TYPE": "2035",
      "MARKET": "ccixber",
      "INSTRUMENT": "BTC-USD",
      "VALUE": 84599.8895197598,
      "AMOUNT": 19814675,
      "CAP_FACTOR": 0.134564761,
      "CALCULATED_MOVING_24_HOUR_VOLUME": 24738.9799658,
      "WEIGHT": 0.383259281897745,
      "SHARES": 0.0111554393068353,
      "MARKET_VALUE": 943.748932902652
    },
    {
      "TYPE": "2035",
      "MARKET": "ccixber",
      "INSTRUMENT": "ETH-USD",
      "VALUE": 1593.63913635121,
      "AMOUNT": 120504823,
      "CAP_FACTOR": 0.463829427,
      "CALCULATED_MOVING_24_HOUR_VOLUME": 596863.37688271,
      "WEIGHT": 0.151341244847776,
      "SHARES": 0.233846625582453,
      "MARKET_VALUE": 372.667134431865
    }
  ],
}
```

```
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "XRP-USD",
  "VALUE": 2.10062385954991,
  "AMOUNT": 57641211234,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 80438694.057463,
  "WEIGHT": 0.205724483231462,
  "SHARES": 241.157891507609,
  "MARKET_VALUE": 506.582020819632
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "SOL-USD",
  "VALUE": 133.308792121658,
  "AMOUNT": 486541780,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 1516228.96531076,
  "WEIGHT": 0.110200488809931,
  "SHARES": 2.03558161397464,
  "MARKET_VALUE": 271.360926224014
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "ADA-USD",
  "VALUE": 0.620140323542524,
  "AMOUNT": 35886473002,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 16907498.446838,
  "WEIGHT": 0.0378116245039012,
  "SHARES": 150.140949114932,
  "MARKET_VALUE": 93.1084567611156
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "LINK-USD",
  "VALUE": 12.4584988169464,
  "AMOUNT": 638099970,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 543464.53889001,
  "WEIGHT": 0.0135070039642559,
  "SHARES": 2.66966706704976,
  "MARKET_VALUE": 33.2600439964802
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "AVAX-USD",
  "VALUE": 19.3348132694211,
```

```
"AMOUNT": 411583344,
"CAP_FACTOR": 1,
"CALCULATED_MOVING_24_HOUR_VOLUME": 214157.75718625,
"WEIGHT": 0.0135207991464188,
"SHARES": 1.72197234051431,
"MARKET_VALUE": 33.2940136589522
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "XLM-USD",
  "VALUE": 0.238882636021715,
  "AMOUNT": 30519753107,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 23848351.526461,
  "WEIGHT": 0.0123871154871268,
  "SHARES": 127.687797515877,
  "MARKET_VALUE": 30.5023976583997
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "SUI-USD",
  "VALUE": 2.09832484540028,
  "AMOUNT": 3009569342,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 4836811.59187465,
  "WEIGHT": 0.0107295538789267,
  "SHARES": 12.591362695629,
  "MARKET_VALUE": 26.4207691816846
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "HBAR-USD",
  "VALUE": 0.160325468634896,
  "AMOUNT": 38267523240,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 15632699.2755042,
  "WEIGHT": 0.01042407339378,
  "SHARES": 160.102728936642,
  "MARKET_VALUE": 25.6685450464929
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "LTC-USD",
  "VALUE": 74.9969821050744,
  "AMOUNT": 75456121,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 160631.55906376,
  "WEIGHT": 0.00961485747675055,
  "SHARES": 0.315691475805933,
```

```
"MARKET_VALUE": 23.6759079617421
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "BCH-USD",
  "VALUE": 331.604481655695,
  "AMOUNT": 19820166,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 14847.58084059,
  "WEIGHT": 0.0111668907369431,
  "SHARES": 0.0829231263459538,
  "MARKET_VALUE": 27.4976803292197
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "UNI-USD",
  "VALUE": 5.19189924211724,
  "AMOUNT": 587638333,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 636285.70360298,
  "WEIGHT": 0.0051837131555169,
  "SHARES": 2.45854690284051,
  "MARKET_VALUE": 12.7645278015673
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "NEAR-USD",
  "VALUE": 2.03976545488156,
  "AMOUNT": 1176451861,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 697413.43829218,
  "WEIGHT": 0.00407717151406969,
  "SHARES": 4.92201055781448,
  "MARKET_VALUE": 10.0397471043923
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
  "INSTRUMENT": "AAVE-USD",
  "VALUE": 138.167588772238,
  "AMOUNT": 15050786,
  "CAP_FACTOR": 1,
  "CALCULATED_MOVING_24_HOUR_VOLUME": 29414.31583097,
  "WEIGHT": 0.00353321403707909,
  "SHARES": 0.0629691108078466,
  "MARKET_VALUE": 8.70029020745204
},
{
  "TYPE": "2035",
  "MARKET": "ccixber",
```

```

    "INSTRUMENT": "APT-USD",
    "VALUE": 4.56822991326264,
    "AMOUNT": 572734757,
    "CAP_FACTOR": 1,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 131583.51480576,
    "WEIGHT": 0.00444535123094906,
    "SHARES": 2.39619368563463,
    "MARKET_VALUE": 10.9463636726872
  },
  {
    "TYPE": "2035",
    "MARKET": "ccixber",
    "INSTRUMENT": "ICP-USD",
    "VALUE": 4.67481176470573,
    "AMOUNT": 480017865,
    "CAP_FACTOR": 1,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 99944.63786115,
    "WEIGHT": 0.00381264278467566,
    "SHARES": 2.00828701776312,
    "MARKET_VALUE": 9.38836377754482
  },
  {
    "TYPE": "2035",
    "MARKET": "ccixber",
    "INSTRUMENT": "DOT-USD",
    "VALUE": 3.62846745574299,
    "AMOUNT": 671684183,
    "CAP_FACTOR": 1,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 787698.83952073,
    "WEIGHT": 0.00414088282643964,
    "SHARES": 2.81017587700768,
    "MARKET_VALUE": 10.1966317146364
  },
  {
    "TYPE": "2035",
    "MARKET": "ccixber",
    "INSTRUMENT": "POL-USD",
    "VALUE": 0.180355948852393,
    "AMOUNT": 8471581929,
    "CAP_FACTOR": 1,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 2243434.26109969,
    "WEIGHT": 0.00259596943488402,
    "SHARES": 35.4431975316739,
    "MARKET_VALUE": 6.39239152118784
  },
  {
    "TYPE": "2035",
    "MARKET": "ccixber",
    "INSTRUMENT": "FIL-USD",
    "VALUE": 2.38464917493532,
    "AMOUNT": 622870716,
    "CAP_FACTOR": 1,
    "CALCULATED_MOVING_24_HOUR_VOLUME": 212116.35226778,

```

```

    "WEIGHT": 0.00252363764136826,
    "SHARES": 2.60595128618311,
    "MARKET_VALUE": 6.21427958451819
  }
]
}

```

Parameter Mappings:

CDI Parameter	CoinDesk Data Parameter	CDI Example	CoinDesk Data Example
-	market	-	sda
ticker	instrument	cd20	CD20-USD
ccy1	N/A Included in "instrument"	xbt	-
ccy2	N/A Included in "instrument"	usd	-
timestamp	date	1744848000	2025-04-17
	market		cdmcdev
	timezone		America/New_York
	close_time		16:00
	limit (number of days returned)		5

Response Field Mappings:

CDI Field	CoinDesk Data Field
price -> {constituent}	VALUE (constituent close price)
supplies -> {constituent}	AMOUNT (circulating supply)
volume -> {constituent}	CALCULATED_MOVING_24_HOUR_VOLUME (last 24 hour traded volume in the base currency)
weights -> {constituent}	WEIGHT (constituent weight on the index)
	MARKET (constituent underlying pricemarket)
	INSTRUMENT (constituent)

	CAP_FACTOR (weighting factor, used to cap the weight of an asset)
	SHARES (number of constituent units)
	MARKET_VALUE (shares * value)

End of Day Indices Endpoint

All end of day only indices are now available on CoinDesk Data end of day endpoint:
https://developers.coindesk.com/documentation/data-api/index_cc_v1_historical_days_eod

Below are examples for Trend Indicators and CESR.

CoinDesk Indices

CoinDesk Endpoint Example:

Trend indicators

<https://api.coindesk-indices.com/v3.0/indicator/bti> + key

CESR

<https://api.coindesk-indices.com/v3.0/staking/cesr> + key

CoinDesk Documentation:

Trend indicators

<https://client.coindesk-indices.com/authorized/docs/trend>

CESR

<https://client.coindesk-indices.com/authorized/docs/staking>

CoinDesk Response

Trend indicators

```
{
  "timestamp": 1680638400,
  "index_level": 28195.28,
  "trend_score": 1
}
```

CESR

```
{
  "timestamp": 1691096400,
  "end_epoch": "219416",
  "end_balance": "32.13763320587289",
  "start_epoch": "219192",
  "total_stake": "25168848.31388204",
  "interval_rate": "0.0001164766080837983457181432718",
  "start_balance": "32.134942627683266",
  "total_end_stake": "25190820.99190833",
  "ann_staking_rate": "0.042514",
  "ann_consensus_reward_rate": "0.03056053500984764728411479910",
  "ann_transaction_fees_rate": "0.01195342694073874890300749511",
  "interval_consensus_reward": "0.002690578189624",
  "interval_transaction_fees": "824.2575054863688",
  "interval_consensus_reward_rate": "0.00008372749317766478707976657287",
  "interval_transaction_fees_rate": "0.00003274911490613355863837669893"
}
```

CoinDesk Data

CoinDesk Endpoint Example:

<https://data-api.coindesk.com/index/cc/v1/historical/days/eod?limit=5&market=cdisr&instrument=CESR-ETH>

CoinDesk Data Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v1_historical_days_eod

CoinDesk Data Response:

Trend indicators

```
{
  TYPE: "2007"
  UNIT: "DAY"
  DATE_TIME_ISO_8601: "2025-02-09T16:00:00.000-05:00"
  TIMESTAMP: 1739134800
  MARKET: "cdi_ti"
  INSTRUMENT: "BTI-USD"
  CLOSE: 0
}
```

CESR

```
{
```

```

TYPE: "2007"
UNIT: "DAY"
DATE_TIME_ISO_8601: "2025-02-09T16:00:00.000-05:00"
TIMESTAMP: 1739134800
MARKET: "cdisr"
INSTRUMENT: "CESR-ETH"
CLOSE: 0.029682
}

```

Parameter Mappings:

CDI Parameter	CoinDesk Data Parameter	CDI Example	CoinDesk Data Example
-	market	-	cdisr
rate	instrument	cesr	CESR-ETH
limit	limit	1	1
start	-		
end	to_ts		

Response Field Mappings:

CDI Field	CoinDesk Data Field
t	TIMESTAMP
trend_score	CLOSE
ann_staking_rate	CLOSE

Additional Endpoints

Below are further CoinDesk Data endpoints that may be of use when working with the CoinDesk Data API.

Index Markets

The index markets endpoint provides a list of the index/reference rate families available to your account.

Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v1_markets

Endpoint Example:

<https://data-api.coindesk.com/index/cc/v1/markets>

Index Markets + Instruments

Further to the Index Markets endpoint, the Markets + Instruments endpoint allows you to view the full list of instruments supported by a index/reference rate family

Documentation:

https://developers.coindesk.com/documentation/data-api/index_cc_v1_markets_instruments

Endpoint Example:

https://data-api.coindesk.com/index/cc/v1/markets/instruments?market=sda&instruments=XBX-USD,ETX-USD&instrument_status=ACTIVE

Helpful Tips When Accessing the CoinDesk Data API

1. The following symbols used within CoinDesk Data and CDI APIs are different and will need to be mapped accordingly:

Name	CDI Symbol	CoinDesk Data Symbol
Bitcoin	XBT	BTC
Terra Classic	LUNA	LUNC
Terra	LUNA2	LUNA

2. The functionality in the CDI candles endpoint to pull 4 p.m. Eastern Time hourly candles is not currently available in the CoinDesk Data API.
3. Candle behavior is consistent between CDI and CoinDesk Data in that the timestamp of the candle represents the beginning of the period. For example the 15:00 hourly candle for CDI and CoinDesk Data candles represent data from 15:00 and leading up to, but not including, 16:00.
4. As noted above, the value in the Open price in CoinDesk Data candles represents the Close from the prior period. For CDI, the Open price is the first value in the applicable candle. To retrieve the first value for the candle in the CoinDesk Data endpoint, use the "FIRST_MESSAGE_VALUE".
5. CDI and CoinDesk Data populate values for open candles. CoinDesk Data does not populate open candles with each update and, therefore, candles are not appropriate for pulling streaming data.
6. For CoinDesk Data candles endpoints, to ensure values have been settled we advise waiting 10 minutes after the candle's close before considering a value to be finalised.

Further Support

For help with any further questions regarding the CoinDesk Data API, please feel free to reach out to our support team at enterprise-support@coindesk.com.