GPW
WARSAW STOCK EXCHANGE

GPW WATS 3.04 Rest API Messages for IDDS

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CONTENTS

1. Disclaimer ... **3**

2. Preface ... **4**

2.1. Target Audience ... 4

2.2. Document's Purpose ... 4

2.3. Associated Documents ... 4

3. Document History ... **5**

4. Reference Data Endpoints ... **8**

4.1. Get Market Structure Information ... 8

4.2. Get Market Calendar ... 9

4.3. Get Simplified List of All Instruments ... 10

4.4. Get Detailed Instruments by MIC ... 10

4.5. Get Detailed Instruments by IDs ... 15

4.6. Get Indexes Metadata and Portfolio ... 21

4.7. Get Accrued Interest Table ... 23

5. Market Data Endpoints ... **25**

5.1. Get Instrument Snapshot Information ... 25

5.2. Get Index Snapshot Data ... 26

5.3. Get Instrument Summary List ... 27

5.4. Get Index Summary List ... 28

6. SchemaForKafka Endpoints ... **29**

6.1. Get Latest Avro Schema for Kafka Stream ... 29

7. Models ... **30**

7.1. List of Models ... 30

1. DISCLAIMER

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1. correcting errors in the documentation or in the software;
2. clarification of the documentation content or removing ambiguity;
3. implementation of approved change requests or;
4. regulatory changes.

2. Preface

This section describes the basic information about GPW WATS Rest API Messages for IDDS. You can learn about the target audience, the document purpose and all the necessary documents you should read in relation to this Specification.

2.1. Target Audience

This document is dedicated to entities, such as Independent Software Vendors who produce software integrated with GPW.

2.2. Document's Purpose

This document lists Rest API Messages used by IDDS service.

2.3. Associated Documents

Please check the following documents to learn about the construction of Trading System.

- GPW WATS 1.01 Trading System.

Please check the documentation of the trading protocols supported by GPW WATS.

- GPW WATS 2.01 Native Order Gateway Specification (this document),
- GPW WATS 2.02 FIX Order Gateway Specification.

Please check the description of the communication with Data Distribution Service.

- GPW WATS 3.01 Market Data Protocol.

Please check the description of the communication with Internet Data Distribution System.

- GPW WATS 3.02 Internet Data Distribution System,
- GPW WATS 3.03 Streaming Messages for IDDS,
- **GPW WATS 3.04 Rest API Messages for IDDS** (this document).

Please check the additional documentation, which explains other services provided within GPW WATS.

- GPW WATS 4.01 Drop Copy Gateway,
- GPW WATS 4.02 Post Trade Gateway,
- GPW WATS 5.01 Risk Management Gateway.

Please check the additional documentation describing the following:

- GPW WATS 2.03 Rejection Codes,
- GPW WATS 2.04 BenDec Message Definition Format,
- GPW WATS 4.03 Contract Notes,
- GPW WATS 6.01 Connectivity,
- GPW WATS 6.02 (ENG) Short Code Record Keeping,
- GPW WATS 6.02 (PL) Mapowanie Short Code,
- GPW WATS 6.03 Short-Long Mapper User Guide.

It is recommended to read ***GPW WATS 1.01 Trading System*** document first.

3. Document History

Version	Date	Description
0.61	29.02.2024	Initial publication of the document.
0.62	25.03.2024	Endpoint structures have been updated accordingly to v0.62.
1.0	30.04.2024	For InstrumentSimplifiedView model the following enums for field productType have been updated: • Equity • FixedIncome • DerivativeFutures • DerivativeOptions • Index • Currency • StructuredProduct For InstrumentSnapshotView model the following field has been changed: • code -> description For InstrumentSummaryView model the following fields have been added: • isCorrection For InstrumentSummaryView model the following enum for field adjustedClosingPriceReason has been added: • NotApplicable For InstrumentView model the following enum for field priceExpressionType has been updated: • Unknown For InstrumentView model the following fields have been added: • thresholdMax • thresholdMin • isLeverage • strikePriceCurrency • icebergMinValue • productSubtype For InstrumentView model the following field has been changed: • code -> description For InstrumentView model the following enum for fields marketModelType have been added: • TenderOffer • RedistributionMarket • RedistributionIndex For MarketStructureView model the following enums for field marketModelType have been added: • TenderOffer • RedistributedMarket • RedistributedIndex For PriceLevelSnapshotView model the following fields have been added: • mmBuyQuoteLevel • mmSellQuoteLevel For TradingPhaseView model the following enum for field tradingPhaseType has been added: • TenderOffer
1.1	28.06.2024	For AuctionUpdateView model the following field has been updated:

Version	Date	Description
		• AuctionType has been changed to tradingPhaseType, and it has new values. For InstrumentSimplifiedView model the following field has been updated: • code field has been changed to description For InstrumentSummaryView model the following field has been updated: • closingPriceType field has a new value: InitialPrice For InstrumentView model the following fields have been updated: • productType field has new values • priceExpressionType has new values • marketModelType has new values For MarketStructureView model the following field has been updated: • marketModelType field has new values For TradingPhaseView model the following field has been updated: • auctionType field has been deleted CurrencyEnum has been updated CountryEnum has been updated
1.1.2	9.08.2024	Get Market Calendar description updated. Get Detailed Instruments by MIC example data updated. Get Detailed Instruments by IDs example data updated. Get Indexes Metadata and Portfolio example data updated. New Models added: • IndexUnderlyingView, • IndexUnderlyingsView. **InstrumentsView model** New value added in priceExpressionType (optional) – NOTAPPLICABLE. New value added in status – HYBRIDKNOCKOUT. New fields: • accruedInterestValue (optional), • kid (optional), • kidIssueDate (optional), valueAtRisk (optional).
1.2	18.09.2024	**get /api/v1/reference/{date}/markets/{mic}/kids** endpoint has been deleted from the document. **InstrumentKidView** model has been deleted from the document.
1.4	6.12.2024	Unpublished version. All changes in this version have been documented in v1.5.
1..5	3.02.2025	**ExternalUnderlyingView** new model **IndexPortfolioEntryView model** • suspended - new field **InstrumentDetailsView model** • externalUnderlyings new field **InstrumentSnapshotView model** new values in instrumentStatus field: • HYBRIDKNOCKOUT • HYBRIDKNOCKOUTBYISSUER **InstrumentView model** • referenceInstrumentId - new field **AuctionUpdateView model** tradingPhaseType: • HybridPreTradeBuyOnly enum added **InstrumentSnapshotView model**

Version	Date	Description
		tradingPhaseType: • HybridPreTradeBuyOnly enum added **TradingPhaseView model** tradingPhaseType: • HybridPreTradeBuyOnly enum added
1.5.4	30.04.2025	Publication of 1.5.4. No changes in the document.
1.6	26.05.2025	**InstrumentSimplifiedView model** productType: • TRACKER - enum added, **InstrumentSummaryView model** adjustedClosingPriceReason - enums added: • TICKSIZECHANGE, • ORDERPURGE, • OTHERREASON, **InstrumentView model** productType: • TRACKER - enum added, Status: • INACTIVE - enum added, productSubtype: • ISSUEDBOND changed to AGENCYBOND.
1.6.5	18.06.2025	Publication of v1.6.5. No changes in the document.
1.6.6	10.07.2025	Publication of v1.6.6. No changes in the document.
1.6.7	7.08.2025	Authentication method for REST API has been changed.
1.6.8	14.08.2025	Publication of v1.6.8. No changes in the document.

4. Reference Data Endpoints

For each endpoint you need to attach mTLS certificates. You can find description how to receive and use the certificates in *GPW WATS 3.02 Internet Data Distribution System*.

The following **responses** apply for each endpoint:

All API calls produces the following media types according to the Accept request header; the media type is conveyed by the Content-Type response header.

Currently **accepted media types**:

- application/json

Expected **response codes**:

- 200 OK - returns data with specified type described for each endpoint in following chapters,
- 400 BadRequest - you send incorrect request (e.g., malformed request syntax, invalid request message framing).
- 403 Forbidden - you do not have an access rights to requested resource,
- 404 NotFound - data not found (check request URL).

4.1. Get Market Structure Information

```
get /api/v1/reference/{date}/market-structures
```

This endpoint retrieves market structure.

Path parameters

date (required)

The date for which data is requested, in the format YYYY-MM-DD. format: date.

Return type

array[MarketStructureView]

Example data

Content-Type: application/json


```
[ {
  "children" : [ null, null ],
  "mic" : "mic",
  "name" : "name",
  "id" : 0,
  "marketModelType" : "NOTAPPLICABLE"
}, {
  "children" : [ null, null ],
  "mic" : "mic",
  "name" : "name",
  "id" : 0,
  "marketModelType" : "NOTAPPLICABLE"
```

```
} ]
```

4.2. Get Market Calendar

```
get /api/v1/reference/{date}/calendar
```

This endpoint retrieves calendar information for a specified calendar ids and date, indicating trading days, half-days, and technical details.

Path parameters

date (required)

The date for which data is requested, in the format YYYY-MM-DD. format: date

Query parameters

ids (optional)

Comma-separated list of calendar IDs. format: int64

Return type

array[CalendarView]

Example data

Content-Type: application/json


```
[ {
  "calendarId" : 0,
  "dates" : [ {
    "date" : "date",
    "tradingAllowed" : true
  }, {
    "date" : "date",
    "tradingAllowed" : true
  } ]
}, {
  "calendarId" : 0,
  "dates" : [ {
    "date" : "date",
    "tradingAllowed" : true
  }, {
    "date" : "date",
    "tradingAllowed" : true
  } ]
} ]
```

4.3. Get Simplified List of All Instruments

```
get
/api/v1/reference/{date}/markets/{mic}/instruments/list
```

This endpoint retrieves a simplified list of all instruments for a specified date, including only key fields.

Path parameters

date (required)

The date for which data is requested, in the format YYYY-MM-DD. format: date

mic (required)

Market structure's Market Identifier Code.

Return type

array[InstrumentSimplifiedView]

Example data

Content-Type: application/json


```
[ {
  "instrumentId" : 0,
  "productIdentification" : "productIdentification",
  "description" : "description",
  "productIdentificationType" : "ISIN",
  "productType" : "EQUITY",
  "productName" : "productName"
}, {
  "instrumentId" : 0,
  "productIdentification" : "productIdentification",
  "description" : "description",
  "productIdentificationType" : "ISIN",
  "productType" : "EQUITY",
  "productName" : "productName"
} ]
```


4.4. Get Detailed Instruments by MIC

```
get
/api/v1/reference/{date}/markets/{mic}/instruments
```

This endpoint retrieves a detailed list of instruments filtered by a specific MIC for a specified date.

Path parameters

mic (required)

Market structure's Market Identifier Code.

date (required)

The date for which data is requested, in the format YYYY-MM-DD. format: date

Return type

IndexUnderlyingView

Underlying instruments for index.

productIdentification (optional)

PublicProductIdentificationView

indexUnderlyingType (optional)

String Underlying type of index.

Enum:

INDEX

REFERENCERATE

4.4.1. INDEXUNDERLYINGSVIEW

Array of IndexUnderlying with their count.

count (optional)

Integer How many elements does IndexUnderlyings contain. format: int32

items (optional)

array[IndexUnderlyingView] IndexUnderlying Array.

InstrumentDetailsView

Example data

Content-Type: application/json


```
{
  "collars" : {
    "key" : {
      "orderStaticCollarTableId" : 5,
      "orderDynamicCollarTableId" : 7,
      "orderStaticCollarTable" : [ {
        "collarValue" : 7.061401241503109,
        "collarMode" : "TRADEPRICECOLLAR",
        "collarLowerAsk" : 4.145608029883936,
        "collarUpperBid" : 3.616076749251911,
        "collarLowerBid" : 9.301444243932576,
        "collarUpperAsk" : 2.027123023002322,
        "collarExpression" : "PERCENTAGE",
        "collarLowerBound" : 2.3021358869347655
      }, {
        "collarValue" : 7.061401241503109,
        "collarMode" : "TRADEPRICECOLLAR",
        "collarLowerAsk" : 4.145608029883936,
        "collarUpperBid" : 3.616076749251911,
        "collarLowerBid" : 9.301444243932576,
        "collarUpperAsk" : 2.027123023002322,
        "collarExpression" : "PERCENTAGE",
        "collarLowerBound" : 2.3021358869347655
```

```
    } ],
    "orderDynamicCollarTable" : [ null, null ],
    "tradeStaticCollarTable" : [ null, null ],
    "tradeDynamicCollarTableId" : 1,
    "tradeStaticCollarTableId" : 1,
    "collarGroupId" : 5,
    "tradeDynamicCollarTable" : [ null, null ]
  }
},
"instruments" : [ {
  "preTradeCheckMaxQuantity" : 8,
  "instrumentId" : 9,
  "exerciseType" : "AMER",
  "liquidity" : true,
  "nominalValueType" : "NOTAPPLICABLE",
  "settlementCalendarId" : 7,
  "accruedInterestValue" : 4.678947989005849,
  "marketModelType" : "NOTAPPLICABLE",
  "collarGroupId" : 6,
  "issuer" : "issuer",
  "productName" : "productName",
  "optionType" : "NOTAPPLICABLE",
  "usIndicator" : "NOTAPPLICABLE",
  "icebergMinValue" : 1.041444916118296,
  "preTradeCheckMaxValue" : 7.740351818741173,
  "valueAtRisk" : 9,
  "productId" : 6,
  "multiplier" : 7.143538047012306,
  "productIdentification" : "productIdentification",
  "bondCouponType" : "NOTAPPLICABLE",
  "kidIssueDate" : 7,
  "thresholdMax" : 6.628464275087742,
  "marketStructureId" : 6,
  "thresholdMin" : 4.258773108174356,
  "tradingScheduleId" : 3,
  "nominalCurrency" : "ALL",
  "strikePrice" : 0.8851374739011653,
  "issuerRegCountry" : "AFG",
  "productSubtype" : "SHARE",
  "status" : "ACTIVE",
  "mic" : "mic",
  "kid" : "kid",
  "description" : "description",
  "referenceInstrumentId" : 5,
  "preTradeCheckMinValue" : 3.0205796992916243,
  "priceExpressionType" : "NOTAPPLICABLE",
  "expiryDate" : 5,
  "firstTradingDate" : 6,
  "tickTableId" : 6,
  "preTradeCheckMaxPrice" : 0.10263654006109402,
  "referencePrice" : 4.078845849666752,
  "underlyingInstrumentId" : 3,
  "isLeverage" : "NOTAPPLICABLE",
  "strikePriceCurrency" : "ALL",
```

```
    "initialPhaseId" : 0,
    "currency" : "ALL",
    "productIdentificationType" : "ISIN",
    "productType" : "EQUITY",
    "preTradeCheckMinQuantity" : 4,
    "settlementType" : "NOTAPPLICABLE",
    "preTradeCheckMinPrice" : 6.519180951018382,
    "lotSize" : 1,
    "cfi" : "cfi",
    "versionNumber" : 3,
    "fisn" : "fisn",
    "productCode" : "productCode",
    "externalUnderlyingId" : 0,
    "calendarId" : 2,
    "issueSize" : 7,
    "nominalValue" : 3.0937452626664474,
    "lastTradingDate" : 3
  }, {
    "preTradeCheckMaxQuantity" : 8,
    "instrumentId" : 9,
    "exerciseType" : "AMER",
    "liquidity" : true,
    "nominalValueType" : "NOTAPPLICABLE",
    "settlementCalendarId" : 7,
    "accruedInterestValue" : 4.678947989005849,
    "marketModelType" : "NOTAPPLICABLE",
    "collarGroupId" : 6,
    "issuer" : "issuer",
    "productName" : "productName",
    "optionType" : "NOTAPPLICABLE",
    "usIndicator" : "NOTAPPLICABLE",
    "icebergMinValue" : 1.041444916118296,
    "preTradeCheckMaxValue" : 7.740351818741173,
    "valueAtRisk" : 9,
    "productId" : 6,
    "multiplier" : 7.143538047012306,
    "productIdentification" : "productIdentification",
    "bondCouponType" : "NOTAPPLICABLE",
    "kidIssueDate" : 7,
    "thresholdMax" : 6.628464275087742,
    "marketStructureId" : 6,
    "thresholdMin" : 4.258773108174356,
    "tradingScheduleId" : 3,
    "nominalCurrency" : "ALL",
    "strikePrice" : 0.8851374739011653,
    "issuerRegCountry" : "AFG",
    "productSubtype" : "SHARE",
    "status" : "ACTIVE",
    "mic" : "mic",
    "kid" : "kid",
    "description" : "description",
    "referenceInstrumentId" : 5,
    "preTradeCheckMinValue" : 3.0205796992916243,
    "priceExpressionType" : "NOTAPPLICABLE",
```

```
    "expiryDate" : 5,
    "firstTradingDate" : 6,
    "tickTableId" : 6,
    "preTradeCheckMaxPrice" : 0.10263654006109402,
    "referencePrice" : 4.078845849666752,
    "underlyingInstrumentId" : 3,
    "isLeverage" : "NOTAPPLICABLE",
    "strikePriceCurrency" : "ALL",
    "initialPhaseId" : 0,
    "currency" : "ALL",
    "productIdentificationType" : "ISIN",
    "productType" : "EQUITY",
    "preTradeCheckMinQuantity" : 4,
    "settlementType" : "NOTAPPLICABLE",
    "preTradeCheckMinPrice" : 6.519180951018382,
    "lotSize" : 1,
    "cfi" : "cfi",
    "versionNumber" : 3,
    "fisn" : "fisn",
    "productCode" : "productCode",
    "externalUnderlyingId" : 0,
    "calendarId" : 2,
    "issueSize" : 7,
    "nominalValue" : 3.0937452626664474,
    "lastTradingDate" : 3
  } ],
  "tickTables" : {
    "key" : {
      "tickTableId" : 0,
      "ticks" : [ {
        "lowerBound" : 1.4658129805029452,
        "tickSize" : 6.027456183070403
      }, {
        "lowerBound" : 1.4658129805029452,
        "tickSize" : 6.027456183070403
      } ]
    }
  },
  "tradingSchedules" : {
    "key" : {
      "tradingScheduleId" : 1,
      "phases" : [ {
        "tradingPhaseId" : 6,
        "dynamicCollarVolatilityAuctionId" : 5,
        "tradingPhaseStartTime" : 9,
        "extStaticCollarVolatilityAuctionId" : 9,
        "extDynamicCollarVolatilityAuctionId" : 6,
        "tradingPhaseType" : "CONTINUOUSPRICETIME",
        "tradingPhaseSettlementCycle" : 7,
        "staticCollarVolatilityAuctionId" : 4,
        "uncrossing" : true,
        "lastAuctionPhaseId" : 8,
        "tradingPhaseMaxBlockSettlementCycle" : 1
      }, {
```

```
        "tradingPhaseId" : 6,
        "dynamicCollarVolatilityAuctionId" : 5,
        "tradingPhaseStartTime" : 9,
        "extStaticCollarVolatilityAuctionId" : 9,
        "extDynamicCollarVolatilityAuctionId" : 6,
        "tradingPhaseType" : "CONTINUOUSPRICETIME",
        "tradingPhaseSettlementCycle" : 7,
        "staticCollarVolatilityAuctionId" : 4,
        "uncrossing" : true,
        "lastAuctionPhaseId" : 8,
        "tradingPhaseMaxBlockSettlementCycle" : 1
      } ]
    }
  },
  "externalUnderlyings" : {
    "key" : {
      "externalUnderlyingId" : 9,
      "productCode" : "productCode",
      "mic" : "mic",
      "tradingCurrency" : "ALL",
      "productIdentification" : "productIdentification",
      "nominalCurrency" : "ALL",
      "productIdentificationType" : "ISIN",
      "productName" : "productName"
    }
  }
}
```


4.5. GET DETAILED INSTRUMENTS BY IDS

```
get /api/v1/reference/{date}/instruments
```

This endpoint retrieves detailed information about specified instruments for a given date, filtered by their IDs.

Path parameters

date (required)

The date for which data is requested, in the format YYYY-MM-DD. format: date

Query parameters

ids (required)

Comma-separated list of instrument IDs. format: int64

Return type

IndexUnderlyingView

Underlying instruments for index.

productIdentification (optional)

PublicProductIdentificationView

indexUnderlyingType (optional)

String Underlying type of index.

Enum:

INDEX

REFERENCERATE

4.5.1. INDEXUNDERLYINGSVIEW

Array of IndexUnderlying with their count.

count (optional)

Integer How many elements does IndexUnderlyings contain. format: int32

items (optional)

array[IndexUnderlyingView] IndexUnderlying Array.

InstrumentDetailsView

Example data

Content-Type: application/json


```
{
  "collars" : {
    "key" : {
      "orderStaticCollarTableId" : 5,
      "orderDynamicCollarTableId" : 7,
      "orderStaticCollarTable" : [ {
        "collarValue" : 7.061401241503109,
        "collarMode" : "TRADEPRICECOLLAR",
        "collarLowerAsk" : 4.145608029883936,
        "collarUpperBid" : 3.616076749251911,
        "collarLowerBid" : 9.301444243932576,
        "collarUpperAsk" : 2.027123023002322,
        "collarExpression" : "PERCENTAGE",
        "collarLowerBound" : 2.3021358869347655
      }, {
        "collarValue" : 7.061401241503109,
        "collarMode" : "TRADEPRICECOLLAR",
        "collarLowerAsk" : 4.145608029883936,
        "collarUpperBid" : 3.616076749251911,
        "collarLowerBid" : 9.301444243932576,
        "collarUpperAsk" : 2.027123023002322,
        "collarExpression" : "PERCENTAGE",
        "collarLowerBound" : 2.3021358869347655
      } ],
      "orderDynamicCollarTable" : [ null, null ],
      "tradeStaticCollarTable" : [ null, null ],
      "tradeDynamicCollarTableId" : 1,
      "tradeStaticCollarTableId" : 1,
      "collarGroupId" : 5,
      "tradeDynamicCollarTable" : [ null, null ]
    }
  },
```

```
"instruments" : [ {
  "preTradeCheckMaxQuantity" : 8,
  "instrumentId" : 9,
  "exerciseType" : "AMER",
  "liquidity" : true,
  "nominalValueType" : "NOTAPPLICABLE",
  "settlementCalendarId" : 7,
  "accruedInterestValue" : 4.678947989005849,
  "marketModelType" : "NOTAPPLICABLE",
  "collarGroupId" : 6,
  "issuer" : "issuer",
  "productName" : "productName",
  "optionType" : "NOTAPPLICABLE",
  "usIndicator" : "NOTAPPLICABLE",
  "icebergMinValue" : 1.041444916118296,
  "preTradeCheckMaxValue" : 7.740351818741173,
  "valueAtRisk" : 9,
  "productId" : 6,
  "multiplier" : 7.143538047012306,
  "productIdentification" : "productIdentification",
  "bondCouponType" : "NOTAPPLICABLE",
  "kidIssueDate" : 7,
  "thresholdMax" : 6.628464275087742,
  "marketStructureId" : 6,
  "thresholdMin" : 4.258773108174356,
  "tradingScheduleId" : 3,
  "nominalCurrency" : "ALL",
  "strikePrice" : 0.8851374739011653,
  "issuerRegCountry" : "AFG",
  "productSubtype" : "SHARE",
  "status" : "ACTIVE",
  "mic" : "mic",
  "kid" : "kid",
  "description" : "description",
  "referenceInstrumentId" : 5,
  "preTradeCheckMinValue" : 3.0205796992916243,
  "priceExpressionType" : "NOTAPPLICABLE",
  "expiryDate" : 5,
  "firstTradingDate" : 6,
  "tickTableId" : 6,
  "preTradeCheckMaxPrice" : 0.10263654006109402,
  "referencePrice" : 4.078845849666752,
  "underlyingInstrumentId" : 3,
  "isLeverage" : "NOTAPPLICABLE",
  "strikePriceCurrency" : "ALL",
  "initialPhaseId" : 0,
  "currency" : "ALL",
  "productIdentificationType" : "ISIN",
  "productType" : "EQUITY",
  "preTradeCheckMinQuantity" : 4,
  "settlementType" : "NOTAPPLICABLE",
  "preTradeCheckMinPrice" : 6.519180951018382,
  "lotSize" : 1,
  "cfi" : "cfi",
```

```
    "versionNumber" : 3,
    "fisn" : "fisn",
    "productCode" : "productCode",
    "externalUnderlyingId" : 0,
    "calendarId" : 2,
    "issueSize" : 7,
    "nominalValue" : 3.0937452626664474,
    "lastTradingDate" : 3
  }, {
    "preTradeCheckMaxQuantity" : 8,
    "instrumentId" : 9,
    "exerciseType" : "AMER",
    "liquidity" : true,
    "nominalValueType" : "NOTAPPLICABLE",
    "settlementCalendarId" : 7,
    "accruedInterestValue" : 4.678947989005849,
    "marketModelType" : "NOTAPPLICABLE",
    "collarGroupId" : 6,
    "issuer" : "issuer",
    "productName" : "productName",
    "optionType" : "NOTAPPLICABLE",
    "usIndicator" : "NOTAPPLICABLE",
    "icebergMinValue" : 1.041444916118296,
    "preTradeCheckMaxValue" : 7.740351818741173,
    "valueAtRisk" : 9,
    "productId" : 6, {
  "collars" : {
    "key" : {
      "orderStaticCollarTableId" : 5,
      "orderDynamicCollarTableId" : 7,
      "orderStaticCollarTable" : [ {
        "collarValue" : 7.061401241503109,
        "collarMode" : "TRADEPRICECOLLAR",
        "collarLowerAsk" : 4.145608029883936,
        "collarUpperBid" : 3.616076749251911,
        "collarLowerBid" : 9.301444243932576,
        "collarUpperAsk" : 2.027123023002322,
        "collarExpression" : "PERCENTAGE",
        "collarLowerBound" : 2.3021358869347655
      }, {
        "collarValue" : 7.061401241503109,
        "collarMode" : "TRADEPRICECOLLAR",
        "collarLowerAsk" : 4.145608029883936,
        "collarUpperBid" : 3.616076749251911,
        "collarLowerBid" : 9.301444243932576,
        "collarUpperAsk" : 2.027123023002322,
        "collarExpression" : "PERCENTAGE",
        "collarLowerBound" : 2.3021358869347655
      } ],
      "orderDynamicCollarTable" : [ null, null ],
      "tradeStaticCollarTable" : [ null, null ],
      "tradeDynamicCollarTableId" : 1,
      "tradeStaticCollarTableId" : 1,
      "collarGroupId" : 5,
```

```
      "tradeDynamicCollarTable" : [ null, null ]
    }
  },
  "instruments" : [ {
    "preTradeCheckMaxQuantity" : 8,
    "instrumentId" : 9,
    "exerciseType" : "AMER",
    "liquidity" : true,
    "nominalValueType" : "NOTAPPLICABLE",
    "settlementCalendarId" : 7,
    "accruedInterestValue" : 4.678947989005849,
    "marketModelType" : "NOTAPPLICABLE",
    "collarGroupId" : 6,
    "issuer" : "issuer",
    "productName" : "productName",
    "optionType" : "NOTAPPLICABLE",
    "usIndicator" : "NOTAPPLICABLE",
    "icebergMinValue" : 1.041444916118296,
    "preTradeCheckMaxValue" : 7.740351818741173,
    "valueAtRisk" : 9,
    "productId" : 6,
    "multiplier" : 7.143538047012306,
    "productIdentification" : "productIdentification",
    "bondCouponType" : "NOTAPPLICABLE",
    "kidIssueDate" : 7,
    "thresholdMax" : 6.628464275087742,
    "marketStructureId" : 6,
    "thresholdMin" : 4.258773108174356,
    "tradingScheduleId" : 3,
    "nominalCurrency" : "ALL",
    "strikePrice" : 0.8851374739011653,
    "issuerRegCountry" : "AFG",
    "productSubtype" : "SHARE",
    "status" : "ACTIVE",
    "mic" : "mic",
    "kid" : "kid",
    "description" : "description",
    "referenceInstrumentId" : 5,
    "preTradeCheckMinValue" : 3.0205796992916243,
    "priceExpressionType" : "NOTAPPLICABLE",
    "expiryDate" : 5,
    "firstTradingDate" : 6,
    "tickTableId" : 6,
    "preTradeCheckMaxPrice" : 0.10263654006109402,
    "referencePrice" : 4.078845849666752,
    "underlyingInstrumentId" : 3,
    "isLeverage" : "NOTAPPLICABLE",
    "strikePriceCurrency" : "ALL",
    "initialPhaseId" : 0,
    "currency" : "ALL",
    "productIdentificationType" : "ISIN",
    "productType" : "EQUITY",
    "preTradeCheckMinQuantity" : 4,
    "settlementType" : "NOTAPPLICABLE",
```

```
    "preTradeCheckMinPrice" : 6.519180951018382,
    "lotSize" : 1,
    "cfi" : "cfi",
    "versionNumber" : 3,
    "fisn" : "fisn",
    "productCode" : "productCode",
    "externalUnderlyingId" : 0,
    "calendarId" : 2,
    "issueSize" : 7,
    "nominalValue" : 3.0937452626664474,
    "lastTradingDate" : 3
  }, {
    "preTradeCheckMaxQuantity" : 8,
    "instrumentId" : 9,
    "exerciseType" : "AMER",
    "liquidity" : true,
    "nominalValueType" : "NOTAPPLICABLE",
    "settlementCalendarId" : 7,
    "accruedInterestValue" : 4.678947989005849,
    "marketModelType" : "NOTAPPLICABLE",
    "collarGroupId" : 6,
    "issuer" : "issuer",
    "productName" : "productName",
    "optionType" : "NOTAPPLICABLE",
    "usIndicator" : "NOTAPPLICABLE",
    "icebergMinValue" : 1.041444916118296,
    "preTradeCheckMaxValue" : 7.740351818741173,
    "valueAtRisk" : 9,
    "productId" : 6,
    "multiplier" : 7.143538047012306,
    "productIdentification" : "productIdentification",
    "bondCouponType" : "NOTAPPLICABLE",
    "kidIssueDate" : 7,
    "thresholdMax" : 6.628464275087742,
    "marketStructureId" : 6,
    "thresholdMin" : 4.258773108174356,
    "tradingScheduleId" : 3,
    "nominalCurrency" : "ALL",
    "strikePrice" : 0.8851374739011653,
    "issuerRegCountry" : "AFG",
    "productSubtype" : "SHARE",
    "status" : "ACTIVE",
    "mic" : "mic",
    "kid" : "kid",
    "description" : "description",
    "referenceInstrumentId" : 5,
    "preTradeCheckMinValue" : 3.0205796992916243,
    "priceExpressionType" : "NOTAPPLICABLE",
    "expiryDate" : 5,
    "firstTradingDate" : 6,
    "tickTableId" : 6,
    "preTradeCheckMaxPrice" : 0.10263654006109402,
    "referencePrice" : 4.078845849666752,
    "underlyingInstrumentId" : 3,
```

```
    "isLeverage" : "NOTAPPLICABLE",
    "strikePriceCurrency" : "ALL",
    "initialPhaseId" : 0,
    "currency" : "ALL",
    "productIdentificationType" : "ISIN",
    "productType" : "EQUITY",
    "preTradeCheckMinQuantity" : 4,
    "settlementType" : "NOTAPPLICABLE",
    "preTradeCheckMinPrice" : 6.519180951018382,
    "lotSize" : 1,
    "cfi" : "cfi",
    "versionNumber" : 3,
    "fisn" : "fisn",
    "productCode" : "productCode",
    "externalUnderlyingId" : 0,
    "calendarId" : 2,
    "issueSize" : 7,
    "nominalValue" : 3.0937452626664474,
    "lastTradingDate" : 3
  } ],
  "tickTables" : {
    "key" : {
      "tickTableId" : 0,
      "ticks" : [ {
        "lowerBound" : 1.4658129805029452,
        "tickSize" : 6.027456183070403
      }, {
        "lowerBound" : 1.4658129805029452,
        "tickSize" : 6.027456183070403
      } ]
    }
  },
  "tradingSchedules" : {
    "key" : {
      "tradingScheduleId" : 1,
      "phases" : [ {
        "tradingPhaseId" : 6,
        "dynamicCollarVolatilityAuctionId" : 5,
        "tradingPhaseStartTime" : 9,
        "extStaticCollarVolatilityAuctionId" : 9,
        "extDynamicCollarVolatilityAuctionId" : 6,
        "tradingPhaseType" : "CONTINUOUSPRICETIME",
        "tradingPhaseSettlementCycle" : 7,
        "staticCollarVolatilityAuctionId" : 4,
        "uncrossing" : true,
        "lastAuctionPhaseId" : 8,
        "tradingPhaseMaxBlockSettlementCycle" : 1
      }, {
        "tradingPhaseId" : 6,
        "dynamicCollarVolatilityAuctionId" : 5,
        "tradingPhaseStartTime" : 9,
        "extStaticCollarVolatilityAuctionId" : 9,
        "extDynamicCollarVolatilityAuctionId" : 6,
        "tradingPhaseType" : "CONTINUOUSPRICETIME",
```

```
        "tradingPhaseSettlementCycle" : 7,
        "staticCollarVolatilityAuctionId" : 4,
        "uncrossing" : true,
        "lastAuctionPhaseId" : 8,
        "tradingPhaseMaxBlockSettlementCycle" : 1
      } ]
    }
  },
  "externalUnderlyings" : {
    "key" : {
      "externalUnderlyingId" : 9,
      "productCode" : "productCode",
      "mic" : "mic",
      "tradingCurrency" : "ALL",
      "productIdentification" : "productIdentification",
      "nominalCurrency" : "ALL",
      "productIdentificationType" : "ISIN",
      "productName" : "productName"
    }
  }
}
```


4.6. GET INDEXES METADATA AND PORTFOLIO

```
get /api/v1/reference/{date}/indexes
```

This endpoint retrieves Index metadata and portfolio on a specific date.

Path parameters

date (required)

The date for which data is requested, in the format YYYY-MM-DD. format: date

Query parameters

ids (optional)

Comma-separated list of instrument Ids. format: int64

Return type

array[IndexReferenceDataView]

Example data

Content-Type: application/json


```
[ {
  "portfolio" : [ {
    "instrumentPacket" : 7,
    "mic" : "mic",
    "currency" : "ALL",
    "suspended" : true
  }, {
```

```
    "instrumentPacket" : 7,
    "mic" : "mic",
    "currency" : "ALL",
    "suspended" : true
  } ],
  "params" : {
    "numberOfDividends" : 9,
    "correctionCoefficient" : 5.637376656633329,
    "instrumentId" : 0,
    "indexPublicationSchedule" : "CONTINUOUS",
    "indexType" : "W",
    "numOfComponents" : 2,
    "daysSinceLastPublication" : 7,
    "indexUnderlyings" : {
      "count" : 3,
      "items" : [ {
        "indexUnderlyingType" : "INDEX",
        "productIdentification" : {
          "productIdentification" : "productIdentification",
          "productIdentificationType" : "ISIN"
        }
      }, {
        "indexUnderlyingType" : "INDEX",
        "productIdentification" : {
          "productIdentification" : "productIdentification",
          "productIdentificationType" : "ISIN"
        }
      } ]
    },
    "dateValidity" : 4,
    "indexBaseValue" : 6.027456183070403,
    "currency" : "ALL",
    "indexBaseCapitalisation" : 1.4658129805029452,
    "indexBaseDate" : 5,
    "publicationOrder" : 2
  },
  "productName" : "productName"
}, {
  "portfolio" : [ {
    "instrumentPacket" : 7,
    "mic" : "mic",
    "currency" : "ALL",
    "suspended" : true
  }, {
    "instrumentPacket" : 7,
    "mic" : "mic",
    "currency" : "ALL",
    "suspended" : true
  } ],
  "params" : {
    "numberOfDividends" : 9,
    "correctionCoefficient" : 5.637376656633329,
    "instrumentId" : 0,
    "indexPublicationSchedule" : "CONTINUOUS",
```

```
    "indexType" : "W",
    "numOfComponents" : 2,
    "daysSinceLastPublication" : 7,
    "indexUnderlyings" : {
      "count" : 3,
      "items" : [ {
        "indexUnderlyingType" : "INDEX",
        "productIdentification" : {
          "productIdentification" : "productIdentification",
          "productIdentificationType" : "ISIN"
        }
      }, {
        "indexUnderlyingType" : "INDEX",
        "productIdentification" : {
          "productIdentification" : "productIdentification",
          "productIdentificationType" : "ISIN"
        }
      } ]
    },
    "dateValidity" : 4,
    "indexBaseValue" : 6.027456183070403,
    "currency" : "ALL",
    "indexBaseCapitalisation" : 1.4658129805029452,
    "indexBaseDate" : 5,
    "publicationOrder" : 2
  },
  "productName" : "productName"
} ]
```


4.7. Get Accrued Interest Table

```
    get
/api/v1/reference/{date}/markets/{mic}/accrued-interest-tables
```

This endpoint retrieves accrued interest data for financial instruments associated with a specific market on a given date.

Path parameters

mic (required)

Market structure's Market Identifier Code.

date (required)

The date for which data is requested, in the format YYYY-MM-DD. format: date

Return type

array[AccruedInterestTableView]

Example data

Content-Type: application/json

```
[ {
  "productId" : 1,
  "productIdentification" : "productIdentification",
  "accruedInterestTable" : [ {
    "date" : 0,
    "value" : 6.027456183070403
  }, {
    "date" : 0,
    "value" : 6.027456183070403
  } ],
  "productIdentificationType" : "ISIN"
}, {
  "productId" : 1,
  "productIdentification" : "productIdentification",
  "accruedInterestTable" : [ {
    "date" : 0,
    "value" : 6.027456183070403
  }, {
    "date" : 0,
    "value" : 6.027456183070403
  } ],
  "productIdentificationType" : "ISIN"
} ]
```

5. Market Data Endpoints

5.1. Get Instrument Snapshot Information

```
get /api/v1/snapshot/instrument/{id}
```

This endpoint retrieves information about a specific financial instrument, including changes to instruments, instrument information, book information, trade information, and collars for the given moment. The 'id' parameter specify the instrument.

Path parameters

id (required)

The unique identifier for the financial instrument. format: int64

Return type

InstrumentSnapshotView

Example data

Content-Type: application/json.


```
{
  "tradingPhaseId" : 7,
  "totalVolume" : 6.438423552598547,
  "totalValue" : 3.5571952270680973,
  "pctChange" : 9.965781217890562,
  "priceLevelSnapshot" : {
    "maxDepth" : 9,
    "mmBuyQuoteLevel" : 7,
    "mmSellQuoteLevel" : 1,
    "buy" : [ {
      "quantity" : 2,
      "price" : 3.616076749251911,
      "orderCount" : 4
    }, {
      "quantity" : 2,
      "price" : 3.616076749251911,
      "orderCount" : 4
    } ],
    "sell" : [ null, null ]
  },
  "instrumentId" : 6,
  "vwap" : 9.018348186070783,
  "productIdentification" : "productIdentification",
  "description" : "description",
  "openPrice" : 9.369310271410669,
  "instrumentStatus" : "ACTIVE",
  "noTrades" : 6,
  "referencePrice" : 0.8008281904610115,
  "tradingPhaseType" : "CONTINUOUSPRICETIME",
```

```
  "staticCollars" : {
    "collarsReferencePrice" : 1.0246457001441578,
    "upperAsk" : 5.025004791520295,
    "lowerTrade" : 1.4894159098541704,
    "upperTrade" : 6.84685269835264,
    "lowerBid" : 7.457744773683766,
    "upperBid" : 1.1730742509559433,
    "lowerAsk" : 4.965218492984954
  },
  "minPrice" : 8.762042012749001,
  "auctionUpdate" : {
    "totalSellQuantityAtImp" : 5,
    "tradingPhaseType" : "CONTINUOUSPRICETIME",
    "bestSellLevelQuantity" : 2,
    "indicativeMatchingVolume" : 1,
    "bestBuyLevel" : 10.1,
    "bestSellLevel" : 10.1,
    "totalBuyQuantityAtImp" : 5,
    "bestBuyLevelQuantity" : 123456,
    "indicativeMatchingPrice" : 10.1
  },
  "maxPrice" : 6.683562403749608,
  "productIdentificationType" : "ISIN",
  "timestamp" : "timestamp"
}
```


5.2. Get Index Snapshot Data

```
GET /api/v1/snapshot/index/{id}
```

This endpoint retrieves snapshot data for a specified index, including metrics like index level code, number of active instruments, session highs/lows, and bid/ask values.

Path parameters

id (required)

Unique identifier for the index for which real-time data is requested. format: int64

Return type

RealTimeIndexView

Example data

Content-Type: application/json


```
{
  "indIndexOpeningPortfolio" : 1.4658129805029452,
  "numOfActiveInstruments" : 6,
  "instrumentId" : 0,
  "tradingValue" : 2.3021358869347655,
  "pctChangeIndexValPrevSession" : 5.637376656633329,
  "sessionLow" : 7.061401241503109,
  "midSpreadIndex" : 4.145608029883936,
```

```
  "differenceCentralSpread" : 7.386281948385884,
  "indexValueAsk" : 2.027123023002322,
  "sessionHigh" : 9.301444243932576,
  "indexLevelCode" : "PREVIOUSCLOSINGVALUE",
  "indexValueBid" : 3.616076749251911,
  "indexValue" : 5.962133916683182
}
```


5.3. GET INSTRUMENT SUMMARY LIST

```
GET /api/v1/summary/instrument
```

This endpoint retrieves a list of instrument summaries.

Query parameters

ids (required)

Comma-separated list of instrument IDs. format: int64

Return type

array[InstrumentSummaryView]

Example data

Content-Type: application/json


```
[ {
  "totalVolume" : 9,
  "totalValue" : 3.616076749251911,
  "closingPriceType" : "INITIALPRICE",
  "pctChange" : 5.637376656633329,
  "isCorrection" : true,
  "instrumentId" : 0,
  "adjustedClosingPrice" : 5.962133916683182,
  "vwap" : 2.3021358869347655,
  "adjustedClosingPriceReason" : "NOTAPPLICABLE",
  "openingPrice" : 2.027123023002322,
  "noTrades" : 7,
  "minPrice" : 7.386281948385884,
  "closingPrice" : 1.4658129805029452,
  "maxPrice" : 4.145608029883936,
  "lastTradedPrice" : 6.027456183070403
}, {
  "totalVolume" : 9,
  "totalValue" : 3.616076749251911,
  "closingPriceType" : "INITIALPRICE",
  "pctChange" : 5.637376656633329,
  "isCorrection" : true,
  "instrumentId" : 0,
  "adjustedClosingPrice" : 5.962133916683182,
  "vwap" : 2.3021358869347655,
  "adjustedClosingPriceReason" : "NOTAPPLICABLE",
  "openingPrice" : 2.027123023002322,
```

```
  "noTrades" : 7,
  "minPrice" : 7.386281948385884,
  "closingPrice" : 1.4658129805029452,
  "maxPrice" : 4.145608029883936,
  "lastTradedPrice" : 6.027456183070403
} ]
```


5.4. Get Index Summary List

```
get /api/v1/summary/index
```

This endpoint retrieves a list of index summaries, providing key index metrics such as opening value, session highs/lows, and closing values.

Query parameters

ids (required)

Comma-separated list of instrument IDs. format: int64

Return type

array[InstrumentSummaryView]

Example data

Content-Type: application/json


```
[ {
  "sessionAvg" : 2.3021358869347655,
  "pctChangeIndexValPrevSession" : 7.061401241503109,
  "indIndexOpeningPortfolio" : 2.027123023002322,
  "sessionLow" : 1.4658129805029452,
  "closingCapitalisationPortfolio" : 3.616076749251911,
  "instrumentId" : 0,
  "openingIndexValue" : 6.027456183070403,
  "sessionHigh" : 5.962133916683182,
  "closingIndexValue" : 5.637376656633329,
  "pctChangeIndexValPrevYear" : 9.301444243932576
}, {
  "sessionAvg" : 2.3021358869347655,
  "pctChangeIndexValPrevSession" : 7.061401241503109,
  "indIndexOpeningPortfolio" : 2.027123023002322,
  "sessionLow" : 1.4658129805029452,
  "closingCapitalisationPortfolio" : 3.616076749251911,
  "instrumentId" : 0,
  "openingIndexValue" : 6.027456183070403,
  "sessionHigh" : 5.962133916683182,
  "closingIndexValue" : 5.637376656633329,
  "pctChangeIndexValPrevYear" : 9.301444243932576
} ]
```

6. SchemaForKafka Endpoints

6.1. Get Latest Avro Schema for Kafka Stream

```
get /api/v1/schema/avro
```

Return type

String

Example data

Content-Type: application/json

```
avro schema
```

7. Models

7.1. List of Models

1. AccruedInterestEntryView
2. AccruedInterestTableView
3. AuctionUpdateView
4. CalendarDayView
5. CalendarView
6. CollarGroupView
7. CollarTableEntryView
8. CollarsView
9. ExternalUnderlyingView
10. IndexParamsView
11. IndexPortfolioEntryView
12. IndexReferenceDataView
13. IndexSummaryView
14. IndexUnderlyingView
15. IndexUnderlyingsView
16. InstrumentDetailsView
17. InstrumentSimplifiedView
18. InstrumentSnapshotView
19. InstrumentSummaryView
20. InstrumentView
21. MarketStructureView
22. PriceLevelSnapshotView
23. PriceLevelView
24. PublicProductIdentificationView
25. RealTimeIndexView
26. TickTableView
27. TickView
28. TradingPhaseView
29. TradingScheduleView

7.1.1. ACCRUEDINTERESTENTRYVIEW

Message describing an accrued interest table entry.

date (optional)

Long Accrued interest table entry date. format: int64

value (optional)

BigDecimal Accrued interest table entry value.

7.1.2. ACCRUEDINTERESTTABLEVIEW

Message describing an accrued interest table entry for product.

accruedInterestTable (optional)

array[AccruedInterestEntryView] Accrued interest table.

productId (optional)

Long Product ID. format: int64

productIdentification (optional)

String Product identification, e.g. ISIN number.

productIdentificationType (optional)

String Type of product identification (for example ISIN or SEDOL).

Enum:

ISIN

7.1.3. AUCTIONUPDATEVIEW

Updates IMP/IMV and BBO during an auction.

indicativeMatchingPrice (optional)

BigDecimal Indicative Matching Price (IMP).

example: 10.1

indicativeMatchingVolume (optional)

Integer Indicative Matching Volume (IMV).

totalSellQuantityAtImp (optional)

Integer Total sell quantity at IMP.

totalBuyQuantityAtImp (optional)

Integer Total buy quantity at IMP.

bestSellLevel (optional)

BigDecimal Best sell price level (1st BBO level).

example: 10.1

bestSellLevelQuantity (optional)

Integer Quantity at the best sell price level.

bestBuyLevel (optional)

BigDecimal Best buy price level (1st BBO level).

example: 10.1

bestBuyLevelQuantity (optional)

Integer Quantity at the best buy price level.

example: 123456

tradingPhaseType (optional)

String Type of matching algorithm.

Enum:

CONTINUOUSPRICETIME

CONTINUOUSREFPRICETIME

CONTINUOUSLASTAUCTIONTIME

AUCTIONOPENING

BLOCKEXACTMATCHING

NOTRADINGCLOSED

UNCROSSING

AUCTIONCLOSING

AUCTIONINTRADAY

AUCTIONVOLATILITYSTATIC

AUCTIONVOLATILITYDYNAMIC

AUCTIONEXTENDEDVOLATILITYSTATIC

AUCTIONEXTENDEDVOLATILITYDYNAMIC

NOTRADINGEARLYMONITORING

NOTRADINGLATEMONITORING

HYBRID

HYBRIDBUYONLY

HYBRIDPRETRADE

UNSUSPENSIONAUCTION

IPO

TENDEROFFER

HYBRIDPRETRADEBUYONLY

7.1.4. CALENDARDAYVIEW

tradingAllowed (optional)

Boolean Is trading allowed parameter for a given day.

date (optional)

String Date in format YYYY:mm:dd

7.1.5. CALENDARVIEW

Calendar for a given instrument for a given day.

dates (optional)

array[CalendarDayView]

calendarId (optional)

Long ID of the calendar format: int64

7.1.6. COLLARGROUPVIEW

Collar group.

collarGroupId (optional)

Long Collar group ID. format: int64

orderStaticCollarTableId (optional)

Long Order static collar table ID. format: int64

orderStaticCollarTable (optional)

array[CollarTableEntryView] Order static collars.

orderDynamicCollarTableId (optional)

Long Order dynamic collar table ID. format: int64

orderDynamicCollarTable (optional)

array[CollarTableEntryView] Order dynamic collars.

tradeStaticCollarTableId (optional)

Long Trade static collar table ID. format: int64

tradeStaticCollarTable (optional)

array[CollarTableEntryView] Trade static collars.

tradeDynamicCollarTableId (optional)

Long Trade dynamic collar table ID. format: int64

tradeDynamicCollarTable (optional)

array[CollarTableEntryView] Trade dynamic collars.

7.1.7. COLLARTABLEENTRYVIEW

Collar table definition

collarMode (optional)

String Collar mode (trade price collar or order price collar)

Enum:

TRADEPRICECOLLAR

ORDERPRICECOLLAR

collarExpression (optional)

String Expression Type

Enum:

PERCENTAGE

ABSOLUTEVALUE

collarLowerBound (optional)

BigDecimal Collar lower bound.

collarValue (optional)

BigDecimal Collar value.

collarLowerBid (optional)

BigDecimal Lower bid collar.

collarUpperBid (optional)

BigDecimal Upper bid collar.

collarUpperAsk (optional)

BigDecimal Upper ask collar.

collarLowerAsk (optional)

BigDecimal Lower ask collar.

7.1.8. COLLARSVIEW

New order price collars

collarsReferencePrice (optional)

BigDecimal The reference price.

lowerTrade (optional)

BigDecimal Value of the lower bid Trade collar.

upperTrade (optional)

BigDecimal Value of the upper bid Trade collar.

lowerBid (optional)

BigDecimal Value of the lower bid Price collar.

upperBid (optional)

BigDecimal Value of the upper bid Price collar.

lowerAsk (optional)

BigDecimal Value of the lower ask Price collar.

upperAsk (optional)

BigDecimal Value of the upper ask Price collar.

7.1.9. EXTERNALUNDERLYINGVIEW

The message contains a list of underlying assets not traded in GPW WATS. It concerns underlying assets for derivatives and structured products.

externalUnderlyingId (optional)

Long External underlying ID. format: int64

productIdentification (optional)

String Product identification.

productIdentificationType (optional)

String Type of product identification (for example ISIN or SEDOL).

Enum:

ISIN

productCode (optional)

String Product code.

productName (optional)

String Product name.

mic (optional)

String Market Identifier Code.

nominalCurrency (optional)

String Currency - ISO 4217 code (e.g. PLN)

ALL - Lek

DZD - Algerian Dinar

ARS - Argentine Peso

AUD - Australian Dollar

BSD - Bahamian Dollar

BHD - Bahraini Dinar

BDT - Taka

AMD - Armenian Dram

BBD - Barbados Dollar

BMD - Bermudian Dollar

BTN - Ngultrum

BOB - Boliviano

BWP - Pula

BZD - Belize Dollar

SBD - Solomon Islands Dollar

BND - Brunei Dollar

MMK - Kyat

BIF - Burundi Franc

KHR - Riel

CAD - Canadian Dollar

CVE - Cabo Verde Escudo

KYD - Cayman Islands Dollar

LKR - Sri Lanka Rupee

CLP - Chilean Peso

CNY - Yuan Renminbi

COP - Colombian Peso

KMF - Comorian Franc

CRC - Costa Rican Colon

HRK - Kuna

CUP - Cuban Peso

CZK - Czech Koruna

DKK - Danish Krone

DOP - Dominican Peso

SVC - El Salvador Colon

ETB - Ethiopian Birr

ERN - Nakfa

FKP - Falkland Islands Pound

FJD - Fiji Dollar

DJF - Djibouti Franc

GMD - Dalasi

GIP - Gibraltar Pound

GTQ - Quetzal

GNF - Guinean Franc

GYD - Guyana Dollar

HTG - Gourde

HNL - Lempira

HKD - Hong Kong Dollar

HUF - Forint

ISK - Iceland Krona

INR - Indian Rupee

IDR - Rupiah

IRR - Iranian Rial

IQD - Iraqi Dinar

ILS - New Israeli Sheqel

JMD - Jamaican Dollar

JPY - Yen

KZT - Tenge

JOD - Jordanian Dinar

KES - Kenyan Shilling

KPW - North Korean Won

KRW - Won

KWD - Kuwaiti Dinar

KGS - Som

LAK - Lao Kip

LBP - Lebanese Pound

LSL - Loti

LRD - Liberian Dollar

LYD - Libyan Dinar

MOP - Pataca

MWK - Malawi Kwacha

MYR - Malaysian Ringgit

MVR - Rufiyaa

MUR - Mauritius Rupee

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MNT - Tugrik

MDL - Moldovan Leu

MAD - Moroccan Dirham

OMR - Rial Omani

NAD - Namibia Dollar

NPR - Nepalese Rupee

ANG - Netherlands Antillean Guilder

AWG - Aruban Florin

VUV - Vatu

NZD - New Zealand Dollar

NIO - Cordoba Oro

NGN - Naira

NOK - Norwegian Krone

PKR - Pakistan Rupee

PAB - Balboa

PGK - Kina

PYG - Guarani

PEN - Sol

PHP - Philippine Peso

QAR - Qatari Rial

RUB - Russian Ruble

RWF - Rwanda Franc

SHP - Saint Helena Pound

SAR - Saudi Riyal

SCR - Seychelles Rupee

SGD - Singapore Dollar

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SOS - Somali Shilling

ZAR - Rand

SSP - South Sudanese Pound

SZL - Lilangeni

SEK - Swedish Krona

CHF - Swiss Franc

SYP - Syrian Pound

THB - Baht

TOP - Pa'anga

TTD - Trinidad and Tobago Dollar

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XPF - CFP Franc

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XBB - Bond Markets Unit European Monetary Unit (E.M.U.-6)

XBC - Bond Markets Unit European Unit of Account 9 (E.U.A.-9)

XBD - Bond Markets Unit European Unit of Account 17 (E.U.A.-17)

XAU - Gold

XDR - SDR (Special Drawing Right)

XAG - Silver

XPT - Platinum

XTS - Codes specifically reserved for testing purposes

XPD - Palladium

XUA - ADB Unit of Account

ZMW - Zambian Kwacha

SRD - Surinam Dollar

MGA - Malagasy Ariary

COU - Unidad de Valor Real

AFN - Afghani

TJS - Somoni

AOA - Kwanza

BGN - Bulgarian Lev

CDF - Congolese Franc

BAM - Convertible Mark

EUR - Euro

MXV - Mexican Unidad de Inversion (UDI)

UAH - Hryvnia

GEL - Lari

BOV - Mvdol

PLN - Zloty

BRL - Brazilian Real

CLF - Unidades de fomento

XSU - Sucre

USN - US Dollar (Next day)

XXX - The codes assigned for transactions where no currency is involved

tradingCurrency (optional)

String Currency - ISO 4217 code (e.g. PLN)

ALL - Lek

DZD - Algerian Dinar

ARS - Argentine Peso

AUD - Australian Dollar

BSD - Bahamian Dollar

BHD - Bahraini Dinar

BDT - Taka

AMD - Armenian Dram

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AWG - Aruban Florin

VUV - Vatu

NZD - New Zealand Dollar

NIO - Cordoba Oro

NGN - Naira

NOK - Norwegian Krone

PKR - Pakistan Rupee

PAB - Balboa

PGK - Kina

PYG - Guarani

PEN - Sol

PHP - Philippine Peso

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ZAR - Rand

SSP - South Sudanese Pound

SZL - Lilangeni

SEK - Swedish Krona

CHF - Swiss Franc

SYP - Syrian Pound

THB - Baht

TOP - Pa'anga

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XCD - East Caribbean Dollar

XOF - CFA Franc BCEAO

XPF - CFP Franc

XBA - Bond Markets Unit European Composite Unit (EURCO)

XBB - Bond Markets Unit European Monetary Unit (E.M.U.-6)

XBC - Bond Markets Unit European Unit of Account 9 (E.U.A.-9)

XBD - Bond Markets Unit European Unit of Account 17 (E.U.A.-17)

XAU - Gold

XDR - SDR (Special Drawing Right)

XAG - Silver

XPT - Platinum

XTS - Codes specifically reserved for testing purposes

XPD - Palladium

XUA - ADB Unit of Account

ZMW - Zambian Kwacha

SRD - Surinam Dollar

MGA - Malagasy Ariary

COU - Unidad de Valor Real

AFN - Afghani

TJS - Somoni

AOA - Kwanza

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BOV - Mvdol

PLN - Zloty

BRL - Brazilian Real

CLF - Unidades de fomento

XSU - Sucre

USN - US Dollar (Next day)

XXX - The codes assigned for transactions where no currency is involved

7.1.10. INDEXPARAMSVIEW

Index parameters metadata

instrumentId (optional)

Long ID of financial instrument. format: int64

indexBaseValue (optional)

BigDecimal Index base value.

indexBaseCapitalisation (optional)

BigDecimal Index base capitalization.

indexBaseDate (optional)

Long Index base date. format: int64

correctionCoefficient (optional)

BigDecimal Index adjustment coefficient K(t).

numOfComponents (optional)

Integer Total number of instruments in the portfolio. format: int32

indexPublicationSchedule (optional)

String Mode of index dissemination

Enum:

CONTINUOUS

FIXING

CLOSING

indexType (optional)

String Type of index

Enum:

W

Z

V

M

S

L

daysSinceLastPublication (optional)

Integer Number of calendar days between the current session and the previous session day. format: int32

numberOfDividends (optional)

Integer Number of dividends included in the index calculation. format: int32

indexUnderlying (optional)

array[PublicProductIdentificationView] List of underlying instruments for the index.

publicationOrder (optional)

Integer Index publication presentation order. format: int32

currency (optional)

String Currency - ISO 4217 (2022/04/01) code (e.g. PLN)

Enum:

ALL - Lek
DZD - Algerian Dinar
ARS - Argentine Peso
AUD - Australian Dollar
BSD - Bahamian Dollar
BHD - Bahraini Dinar
BDT - Taka
AMD - Armenian Dram
BBD - Barbados Dollar
BMD - Bermudian Dollar
BTN - Ngultrum
BOB - Boliviano
BWP - Pula
BZD - Belize Dollar
SBD - Solomon Islands Dollar
BND - Brunei Dollar
MMK - Kyat
BIF - Burundi Franc
KHR - Riel
CAD - Canadian Dollar
CVE - Cabo Verde Escudo
KYD - Cayman Islands Dollar
LKR - Sri Lanka Rupee
CLP - Chilean Peso
CNY - Yuan Renminbi
COP - Colombian Peso
KMF - Comorian Franc
CRC - Costa Rican Colon
HRK - Kuna
CUP - Cuban Peso
CZK - Czech Koruna
DKK - Danish Krone
DOP - Dominican Peso
SVC - El Salvador Colon
ETB - Ethiopian Birr
ERN - Nakfa
FKP - Falkland Islands Pound
FJD - Fiji Dollar
DJF - Djibouti Franc
GMD - Dalasi
GIP - Gibraltar Pound
GTQ - Quetzal

GNF - Guinean Franc

GYD - Guyana Dollar

HTG - Gourde

HNL - Lempira

HKD - Hong Kong Dollar

HUF - Forint

ISK - Iceland Krona

INR - Indian Rupee

IDR - Rupiah

IRR - Iranian Rial

IQD - Iraqi Dinar

ILS - New Israeli Sheqel

JMD - Jamaican Dollar

JPY - Yen

KZT - Tenge

JOD - Jordanian Dinar

KES - Kenyan Shilling

KPW - North Korean Won

KRW - Won

KWD - Kuwaiti Dinar

KGS - Som

LAK - Lao Kip

LBP - Lebanese Pound

LSL - Loti

LRD - Liberian Dollar

LYD - Libyan Dinar

MOP - Pataca

MWK - Malawi Kwacha

MYR - Malaysian Ringgit

MVR - Rufiyaa

MUR - Mauritius Rupee

MXN - Mexican Peso

MNT - Tugrik

MDL - Moldovan Leu

MAD - Moroccan Dirham

OMR - Rial Omani

NAD - Namibia Dollar

NPR - Nepalese Rupee

ANG - Netherlands Antillean Guilder

AWG - Aruban Florin

VUV - Vatu

NZD - New Zealand Dollar

NIO - Cordoba Oro

NGN - Naira

NOK - Norwegian Krone

PKR - Pakistan Rupee

PAB - Balboa

PGK - Kina

PYG - Guarani

PEN - Sol

PHP - Philippine Peso

QAR - Qatari Rial

RUB - Russian Ruble

RWF - Rwanda Franc

SHP - Saint Helena Pound

SAR - Saudi Riyal

SCR - Seychelles Rupee

SGD - Singapore Dollar

VND - Dong

SOS - Somali Shilling

ZAR - Rand

SSP - South Sudanese Pound

SZL - Lilangeni

SEK - Swedish Krona

CHF - Swiss Franc

SYP - Syrian Pound

THB - Baht

TOP - Pa'anga

TTD - Trinidad and Tobago Dollar

AED - UAE Dirham

TND - Tunisian Dinar

UGX - Uganda Shilling

MKD - Denar

EGP - Egyptian Pound

GBP - Pound Sterling

TZS - Tanzanian Shilling

USD - US Dollar

UYU - Peso Uruguayo

UZS - Uzbekistan Sum

WST - Tala

YER - Yemeni Rial

TWD - New Taiwan Dollar

SLE - Leone

VED - Bolívar Soberano

UYW - Unidad Previsional

VES - Bolívar Soberano

MRU - Ouguiya

STN - Dobra

CUC - Peso Convertible

ZWL - Zimbabwe Dollar

BYN - Belarusian Ruble

TMT - Turkmenistan New Manat

GHS - Ghana Cedi

SDG - Sudanese Pound

UYI - Uruguay Peso en Unidades Indexadas

RSD - Serbian Dinar

MZN - Mozambique Metical

AZN - Azerbaijan Manat

RON - Romanian Leu

CHE - WIR Euro

CHW - WIR Franc

TRY - Turkish Lira

XAF - CFA Franc BEAC

XCD - East Caribbean Dollar

XOF - CFA Franc BCEAO

XPF - CFP Franc

XBA - Bond Markets Unit European Composite Unit (EURCO)

XBB - Bond Markets Unit European Monetary Unit (E.M.U.-6)

XBC - Bond Markets Unit European Unit of Account 9 (E.U.A.-9)

XBD - Bond Markets Unit European Unit of Account 17 (E.U.A.-17)

XAU - Gold

XDR - SDR (Special Drawing Right)

XAG - Silver

XPT - Platinum

XTS - Codes specifically reserved for testing purposes

XPD - Palladium

XUA - ADB Unit of Account

ZMW - Zambian Kwacha

SRD - Surinam Dollar

MGA - Malagasy Ariary

COU - Unidad de Valor Real

AFN - Afghani

TJS - Somoni

AOA - Kwanza

BGN - Bulgarian Lev

CDF - Congolese Franc

BAM - Convertible Mark

EUR - Euro

MXV - Mexican Unidad de Inversion (UDI)

UAH - Hryvnia

GEL - Lari

BOV - Mvdol

PLN - Zloty

BRL - Brazilian Real

CLF - Unidades de fomento

XSU - Sucre

USN - US Dollar (Next day)

XXX - The codes assigned for transactions where no currency is involved

dateValidity (optional)

Long Date of validity of index format: int64

7.1.11. INDEXPORTFOLIOENTRYVIEW

Contains information about a product providing the index portfolio.

publicProductIdentification (optional)

PublicProductIdentificationView

mic (optional)

String Market structure's Market Identifier Code (MIC) as specified in ISO 10383.

currency (optional)

String Currency - ISO 4217 (2022/04/01) code (e.g. PLN)

Enum:

ALL - Lek

DZD - Algerian Dinar

ARS - Argentine Peso

AUD - Australian Dollar

BSD - Bahamian Dollar

BHD - Bahraini Dinar

BDT - Taka

AMD - Armenian Dram

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XUA - ADB Unit of Account

ZMW - Zambian Kwacha

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PLN - Zloty

BRL - Brazilian Real

CLF - Unidades de fomento

XSU - Sucre

USN - US Dollar (Next day)

XXX - The codes assigned for transactions where no currency is involved

instrumentPacket (optional)

Integer Instrument packet in index portfolio / of information product. Number of units (usually stocks/shares) of a given instrument in the index portfolio or in the information product.

suspended (optional)

Boolean Is instrument suspended.

7.1.12. INDEXREFERENCEDATAVIEW

Index metadata and portfolio

productName (optional)

String Product name.

params (optional)

IndexParamsView

portfolio (optional)

array[IndexPortfolioEntryView] Index portfolio.

7.1.13. INDEXSUMMARYVIEW

Summary statistics at the end of session for Index

instrumentId (optional)

Long ID of the instrument. format: int64

openingIndexValue (optional)

BigDecimal Opening index value.

sessionLow (optional)

BigDecimal Lowest value of the day.

sessionHigh (optional)

BigDecimal Highest value of the day.

closingIndexValue (optional)

BigDecimal Closing index value.

sessionAvg (optional)

BigDecimal Average value of the day.

pctChangeIndexValPrevSession (optional)

BigDecimal Percentage change of the index value in relation to the value of the closing index from the previous session.

pctChangeIndexValPrevYear (optional)

BigDecimal Percentage change of the index value in relation to its value at the end of the previous year.

closingCapitalisationPortfolio (optional)

BigDecimal Capitalisation of the portfolio for the closing index expressed in the currency of the index, on basis of which the closing index is calculated.

indIndexOpeningPortfolio (optional)

BigDecimal Indicator of the index opening portfolio W(t). Percentage share of instruments with at least one trade during the session.

7.1.14. INDEXUNDERLYINGVIEW

Underlying instruments for index.

productIdentification (optional)

PublicProductIdentificationView

indexUnderlyingType (optional)

String Underlying type of index.

Enum:

INDEX

REFERENCERATE

7.1.15. INDEXUNDERLYINGSVIEW

Array of IndexUnderlying with their count.

count (optional)

Integer How many elements does IndexUnderlyings contain. format: int32

items (optional)

array[IndexUnderlyingView] IndexUnderlying Array.

7.1.16. INSTRUMENTDETAILSVIEW

Detailed list of instruments.

tickTables (optional)

map[String, TickTableView] Tick Table map.

collars (optional)

map[String, CollarGroupView] Collar group map.

tradingSchedules (optional)

map[String, TradingScheduleView] Trading schedules map.

instruments (optional)

array[InstrumentView] List of Instrument Information.

externalUnderlyings (optional)

map[String, ExternalUnderlyingView] External underlying assets map.

7.1.17. INSTRUMENTSIMPLIFIEDVIEW

Definition of a financial instrument.

instrumentId (optional)

Long ID of financial instrument. format: int64

description (optional)

String Financial instrument code.

productType (optional)

String Product Type

Enum:

- EQUITY
- FIXEDINCOME
- DERIVATIVEFUTURES
- DERIVATIVEOPTIONS
- INDEX
- CURRENCY
- STRUCTUREDPRODUCT
- TRACKER

productIdentification (optional)

String Product identification, e.g. ISIN number.

productIdentificationType (optional)

String Type of product identification (for example ISIN or SEDOL).

Enum:

- ISIN

productName (optional)

String Name of the product.

7.1.18. INSTRUMENTSNAPSHOTVIEW

Extended instrument information for a given moment in time. Contains configuration information but also price information.

timestamp (optional)

String Value in format yyyy-MM-dd HH:mm:ss, updated whenever any of fields change the value, this is a REST API internally generated value

referencePrice (optional)

BigDecimal Reference price from previous session.

instrumentId (optional)

Long ID of financial instrument. format: int64

description (optional)

String Financial instrument code.

productIdentification (optional)

String Product identification, e.g. ISIN number.

productIdentificationType (optional)

String Type of product identification (for example ISIN or SEDOL).

Enum:

ISIN

auctionUpdate (optional)

AuctionUpdateView

instrumentStatus (optional)

String Financial instrument status

Enum:

ACTIVE

MARKETOPERATIONSSUSPENSION

OUTSIDECOLLARSSTATIC

OUTSIDECOLLARSDYNAMIC

REGULATORYSUSPENSION

HYBRIDNOQUOTES

HYBRIDKNOCKOUT

HYBRIDKNOCKOUTBYISSUER

tradingPhaseId (optional)

Long Trading phase id format: int64

tradingPhaseType (optional)

String Type of trading phase.

Enum:

CONTINUOUSPRICETIME

CONTINUOUSREFPRICETIME

CONTINUOUSLASTAUCTIONTIME

AUCTIONOPENING

BLOCKEXACTMATCHING

NOTRADINGCLOSED

UNCROSSING

AUCTIONCLOSING

AUCTIONINTRADAY

AUCTIONVOLATILITYSTATIC

AUCTIONVOLATILITYDYNAMIC

AUCTIONEXTENDEDVOLATILITYSTATIC

AUCTIONEXTENDEDVOLATILITYDYNAMIC

NOTRADINGEARLYMONITORING

NOTRADINGLATEMONITORING

HYBRID

HYBRIDBUYONLY

HYBRIDPRETRADE

UNSUSPENSIONAUCTION

IPO

TENDEROFFER

HYBRIDPRETRADEBUYONLY

priceLevelSnapshot (optional)

PriceLevelSnapshotView

staticCollars (optional)

CollarsView

dynamicCollars (optional)

CollarsView

pctChange (optional)

BigDecimal Percentage change in price compared to the previous closing price. If previousClosingPrice is ZERO, it returns ZERO.

openPrice (optional)

BigDecimal Daily open price for given session. This is price taken from the first Trade message.

maxPrice (optional)

BigDecimal Daily max price for given session

minPrice (optional)

BigDecimal Daily min price for given session

vwap (optional)

BigDecimal Calculates the Volume Weighted Average Price (VWAP). VWAP is calculated as cumulativeValue to cumulativeVolume.

totalVolume (optional)

BigDecimal Total volume as a sum of all trades volume for given session

totalValue (optional)

BigDecimal Total value as a sum of all trades multiplied by their price and quantity for a given session

noTrades (optional)

Integer Total number of all trades for a given session format: int32

7.1.19. INSTRUMENTSUMMARYVIEW

Provides brief instrument summary.

instrumentId (optional)

Long Identifier of the instrument. format: int64

lastTradedPrice (optional)

BigDecimal Last Traded Price (LTP).

closingPrice (optional)

BigDecimal Closing Price (CP).

closingPriceType (optional)

String Closing Price Type

Enum:

INITIALPRICE

LTP

LASTACP

FAIRVALUE

DAILYSETTLEMENTPRICE

FINALSETTLEMENTPRICE

adjustedClosingPrice (optional)

BigDecimal Adjusted Closing Price (ACP).

adjustedClosingPriceReason (optional)

String Adjusted Closing Price Reason

Enum:

NOTAPPLICABLE

REGULAR

DIVIDEND

ISSUERIGHT

SPLIT

REVERSESPLIT

BONUS

SPINOFF

TICKSIZECHANGE

ORDERPURGE

OTHERREASON

pctChange (optional)

BigDecimal Percentage change from last session closing price.

vwap (optional)

BigDecimal Volume-weighted average price for the market model in which there is an instrument.

noTrades (optional)

Integer Total number of transactions on the current trading day.

totalVolume (optional)

Integer Total transaction volume.

totalValue (optional)

BigDecimal Total transaction value.

openingPrice (optional)

BigDecimal The price of the first trade on the current trading day.

maxPrice (optional)

BigDecimal Highest price of the instrument on the current trading day.

minPrice (optional)

BigDecimal Lowest price of the instrument on the current trading day.

isCorrection (optional)

Boolean Previous message correction flag.

7.1.20. INSTRUMENTVIEW

Extended Instrument Information

instrumentId (optional)

Long ID of financial instrument. format: int64

productType (optional)

String Product Type

Enum:

EQUITY

FIXEDINCOME

DERIVATIVEFUTURES

DERIVATIVEOPTIONS

INDEX

CURRENCY

STRUCTUREDPRODUCT

TRACKER

firstTradingDate (optional)

Long First trading day of the financial instrument. format: int64

lastTradingDate (optional)

Long Last trading day of the financial instrument. format: int64

productId (optional)

Long Reference to financial product definition. format: int64

currency (optional)

String Currency - ISO 4217 (2022/04/01) code (e.g. PLN)

Enum:

ALL - Lek

DZD - Algerian Dinar

ARS - Argentine Peso

AUD - Australian Dollar

BSD - Bahamian Dollar

BHD - Bahraini Dinar

BDT - Taka

AMD - Armenian Dram

BBD - Barbados Dollar

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MMK - Kyat

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HKD - Hong Kong Dollar

HUF - Forint

ISK - Iceland Krona

INR - Indian Rupee

IDR - Rupiah

IRR - Iranian Rial

IQD - Iraqi Dinar

ILS - New Israeli Sheqel

JMD - Jamaican Dollar

JPY - Yen

KZT - Tenge

JOD - Jordanian Dinar

KES - Kenyan Shilling

KPW - North Korean Won

KRW - Won

KWD - Kuwaiti Dinar

KGS - Som

LAK - Lao Kip

LBP - Lebanese Pound

LSL - Loti

LRD - Liberian Dollar

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AWG - Aruban Florin

VUV - Vatu

NZD - New Zealand Dollar

NIO - Cordoba Oro

NGN - Naira

NOK - Norwegian Krone

PKR - Pakistan Rupee

PAB - Balboa

PGK - Kina

PYG - Guarani

PEN - Sol

PHP - Philippine Peso

QAR - Qatari Rial

RUB - Russian Ruble

RWF - Rwanda Franc

SHP - Saint Helena Pound

SAR - Saudi Riyal

SCR - Seychelles Rupee

SGD - Singapore Dollar

VND - Dong

SOS - Somali Shilling

ZAR - Rand

SSP - South Sudanese Pound

SZL - Lilangeni

SEK - Swedish Krona

CHF - Swiss Franc

SYP - Syrian Pound

THB - Baht

TOP - Pa'anga

TTD - Trinidad and Tobago Dollar

AED - UAE Dirham

TND - Tunisian Dinar

UGX - Uganda Shilling

MKD - Denar

EGP - Egyptian Pound

GBP - Pound Sterling

TZS - Tanzanian Shilling

USD - US Dollar

UYU - Peso Uruguayo

UZS - Uzbekistan Sum

WST - Tala

YER - Yemeni Rial

TWD - New Taiwan Dollar

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GHS - Ghana Cedi

SDG - Sudanese Pound

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RON - Romanian Leu

CHE - WIR Euro

CHW - WIR Franc

TRY - Turkish Lira

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XPF - CFP Franc

XBA - Bond Markets Unit European Composite Unit (EURCO)

XBB - Bond Markets Unit European Monetary Unit (E.M.U.-6)

XBC - Bond Markets Unit European Unit of Account 9 (E.U.A.-9)

XBD - Bond Markets Unit European Unit of Account 17 (E.U.A.-17)

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XAG - Silver

XPT - Platinum

XTS - Codes specifically reserved for testing purposes

XPD - Palladium

XUA - ADB Unit of Account

ZMW - Zambian Kwacha

SRD - Surinam Dollar

MGA - Malagasy Ariary

COU - Unidad de Valor Real

AFN - Afghani

TJS - Somoni

AOA - Kwanza

BGN - Bulgarian Lev

CDF - Congolese Franc

BAM - Convertible Mark

EUR - Euro

MXV - Mexican Unidad de Inversion (UDI)

UAH - Hryvnia

GEL - Lari

BOV - Mvdol

PLN - Zloty

BRL - Brazilian Real

CLF - Unidades de fomento

XSU - Sucre

USN - US Dollar (Next day)

XXX - The codes assigned for transactions where no currency is involved

lotSize (optional)

Long Lot size for the instrument. format: int64

priceExpressionType (optional)

String Price expression type for the financial instrument

Enum:

NOTAPPLICABLE

PRICE

PERCENTAGE

calendarId (optional)

Long ID of trading calendar for the financial instrument. format: int64

marketStructureId (optional)

Long ID of the financial instrument's market segment. format: int64

tickTableId (optional)

Long Tick Table ID for the financial instrument. format: int64

referenceInstrumentId (optional)

Long Identifier of reference instrument. format: int64

collarGroupId (optional)

Long Collar group ID. format: int64

tradingScheduleId (optional)

Long Trading schedule ID. format: int64

description (optional)

String Financial instrument code.

mic (optional)

String Market structure's Market Identifier Code (MIC) as specified in ISO 10383.

nominalValue (optional)

BigDecimal Nominal value of the financial instrument.

nominalValueType (optional)

String Type of the product's nominal value (no nominal, constant or unknown)

Enum:

NOTAPPLICABLE

CONSTANT

multiplier (optional)

BigDecimal Product value multiplier.

strikePrice (optional)

BigDecimal Product strike price.

productIdentification (optional)

String Product identification, e.g. ISIN number.

productIdentificationType (optional)

String Type of product identification (for example ISIN or SEDOL).

Enum:

ISIN

settlementCalendarId (optional)

Long Settlement calendar ID. format: int64

bondCouponType (optional)

String A bond's coupon type

Enum:

NOTAPPLICABLE

ZERO

FIXED

FLOATING

INDEXED

preTradeCheckMinPrice (optional)

BigDecimal Minimum order price for pre-trade check.

preTradeCheckMaxPrice (optional)

BigDecimal Maximum order price for pre-trade check.

preTradeCheckMinQuantity (optional)

Integer Minimum volume for pre-trade check.

preTradeCheckMaxQuantity (optional)

Integer Maximum volume for pre-trade check.

preTradeCheckMaxValue (optional)

BigDecimal Maximum value for pre-trade check.

preTradeCheckMinValue (optional)

BigDecimal Minimum value for pre-trade check.

liquidity (optional)

Boolean Liquidity flag, true - liquid, false - illiquid.

marketModelType (optional)

String Market Model

Enum:

NOTAPPLICABLE

CLOB

BLOCK

HYBRID

CROSS

IPO

TENDEROFFER

REDISTRIBUTION

issuer (optional)

String Name of the issuer.

issuerRegCountry (optional)

String Country codes based on ISO 3166.

Enum:

AFG - Afghanistan

ALB - Albania

ATA - Antarctica

DZA - Algeria

ASM - American Samoa

AND - Andorra

AGO - Angola

ATG - Antigua and Barbuda

AZE - Azerbaijan

ARG - Argentina

AUS - Australia

AUT - Austria

BHS - Bahamas

BHR - Bahrain

BGD - Bangladesh

ARM - Armenia

BRB - Barbados

BEL - Belgium

BMU - Bermuda

BTN - Bhutan

BOL - Bolivia

BIH - Bosnia and Herzegovina

BWA - Botswana

BVT - Bouvet Island

BRA - Brazil

BLZ - Belize

IOT - British Indian Ocean Territory

SLB - Solomon Islands

VGB - Virgin Islands (British)

BRN - Brunei Darussalam

BGR - Bulgaria

MMR - Myanmar

BDI - Burundi

BLR - Belarus

KHM - Cambodia

CMR - Cameroon

CAN - Canada

CPV - Cabo Verde

CYM - Cayman Islands

CAF - Central African Republic

LKA - Sri Lanka

TCD - Chad

CHL - Chile

CHN - China

TWN - Taiwan (Province of China)

CXR - Christmas Island

CCK - Cocos (Keeling) Islands

COL - Colombia

COM - Comoros

MYT - Mayotte

COG - Congo

COD - Congo (the Democratic Republic of the)

COK - Cook Islands

CRI - Costa Rica

HRV - Croatia

CUB - Cuba

CYP - Cyprus

CZE - Czechia

BEN - Benin

DNK - Denmark

DMA - Dominica

DOM - Dominican Republic

ECU - Ecuador

SLV - El Salvador

GNQ - Equatorial Guinea

ETH - Ethiopia

ERI - Eritrea

EST - Estonia

FRO - Faroe Islands

FLK - Falkland Islands (the) [Malvinas]

SGS - South Georgia and the South Sandwich Islands

FJI - Fiji

FIN - Finland

ALA - Aland Islands

FRA - France

GUF - French Guiana

PYF - French Polynesia

ATF - French Southern Territories

DJI - Djibouti

GAB - Gabon

GEO - Georgia

GMB - Gambia

PSE - Palestine, State of

DEU - Germany

GHA - Ghana

GIB - Gibraltar

KIR - Kiribati

GRC - Greece

GRL - Greenland

GRD - Grenada

GLP - Guadeloupe

GUM - Guam

GTM - Guatemala

GIN - Guinea

GUY - Guyana

HTI - Haiti

HMD - Heard Island and McDonald Islands

VAT - Holy See

HND - Honduras

HKG - Hong Kong

HUN - Hungary

ISL - Iceland

IND - India

IDN - Indonesia

IRN - Iran (Islamic Republic of)

IRQ - Iraq

IRL - Ireland

ISR - Israel

ITA - Italy

CIV - Côte d'Ivoire

JAM - Jamaica

JPN - Japan

KAZ - Kazakhstan

JOR - Jordan

KEN - Kenya

PRK - Korea (the Democratic People's Republic of)

KOR - Korea (the Republic of)

KWT - Kuwait

KGZ - Kyrgyzstan

LAO - Lao People's Democratic Republic

LBN - Lebanon

LSO - Lesotho

LVA - Latvia

LBR - Liberia

LBY - Libya

LIE - Liechtenstein

LTU - Lithuania

LUX - Luxembourg

MAC - Macao

MDG - Madagascar

MWI - Malawi

MYS - Malaysia

MDV - Maldives

MLI - Mali

MLT - Malta

MTQ - Martinique

MRT - Mauritania

MUS - Mauritius

MEX - Mexico

MCO - Monaco

MNG - Mongolia

MDA - Moldova (the Republic of)

MNE - Montenegro

MSR - Montserrat

MAR - Morocco

MOZ - Mozambique

OMN - Oman

NAM - Namibia

NRU - Nauru

NPL - Nepal

NLD - Netherlands (Kingdom of the)

CUW - Curaçao

ABW - Aruba

SXM - Sint Maarten (Dutch part)

BES - Bonaire, Sint Eustatius and Saba

NCL - New Caledonia

VUT - Vanuatu

NZL - New Zealand

NIC - Nicaragua

NER - Niger

NGA - Nigeria

NIU - Niue

NFK - Norfolk Island

NOR - Norway

MNP - Northern Mariana Islands

UMI - United States Minor Outlying Islands

FSM - Micronesia (Federated States of)

MHL - Marshall Islands

PLW - Palau

PAK - Pakistan

PAN - Panama

PNG - Papua New Guinea

PRY - Paraguay

PER - Peru

PHL - Philippines

PCN - Pitcairn

POL - Poland

PRT - Portugal

GNB - Guinea-Bissau

TLS - Timor-Leste

PRI - Puerto Rico

QAT - Qatar

REU - Réunion

ROU - Romania

RUS - Russian Federation

RWA - Rwanda

BLM - Saint Barthélemy

SHN - Saint Helena, Ascension and Tristan da Cunha

KNA - Saint Kitts and Nevis

AIA - Anguilla

LCA - Saint Lucia

MAF - Saint Martin (French part)

SPM - Saint Pierre and Miquelon

VCT - Saint Vincent and the Grenadines

SMR - San Marino

STP - Sao Tome and Principe

SAU - Saudi Arabia

SEN - Senegal

SRB - Serbia

SYC - Seychelles

SLE - Sierra Leone

SGP - Singapore

SVK - Slovakia

VNM - Viet Nam

SVN - Slovenia

SOM - Somalia

ZAF - South Africa

ZWE - Zimbabwe

ESP - Spain

SSD - South Sudan

SDN - Sudan

ESH - Western Sahara

SUR - Suriname

SJM - Svalbard and Jan Mayen

SWZ - Eswatini

SWE - Sweden

CHE - Switzerland

SYR - Syrian Arab Republic

TJK - Tajikistan

THA - Thailand

TGO - Togo

TKL - Tokelau

TON - Tonga

TTO - Trinidad and Tobago

ARE - United Arab Emirates

TUN - Tunisia

TUR - Turkey

TKM - Turkmenistan

TCA - Turks and Caicos Islands

TUV - Tuvalu

UGA - Uganda

UKR - Ukraine

MKD - North Macedonia

EGY - Egypt

GBR - United Kingdom of Great Britain and Northern Ireland

GGY - Guernsey

JEY - Jersey

IMN - Isle of Man

TZA - Tanzania, the United Republic of

USA - United States of America

VIR - Virgin Islands (U.S.)

BFA - Burkina Faso

URY - Uruguay

UZB - Uzbekistan

VEN - Venezuela (Bolivarian Republic of)

WLF - Wallis and Futuna

WSM - Samoa

YEM - Yemen

ZMB - Zambia

underlyingInstrumentId (optional)

Long Identifier of the underlying instrument. format: int64

productCode (optional)

String Unique code of the product.

cfi (optional)

String CFI (Classification of Financial Instrument) code.

fisn (optional)

String Product FISN (Financial Instrument Short Name) code.

issueSize (optional)

Integer Size of the issue (depends on the issue size type).

nominalCurrency (optional)

String Currency - ISO 4217 (2022/04/01) code (e.g. PLN)

Enum:

ALL - Lek

DZD - Algerian Dinar

ARS - Argentine Peso

AUD - Australian Dollar

BSD - Bahamian Dollar

BHD - Bahraini Dinar

BDT - Taka

AMD - Armenian Dram

BBD - Barbados Dollar

BMD - Bermudian Dollar

BTN - Ngultrum

BOB - Boliviano

BWP - Pula

BZD - Belize Dollar

SBD - Solomon Islands Dollar

BND - Brunei Dollar

MMK - Kyat

BIF - Burundi Franc

KHR - Riel

CAD - Canadian Dollar

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CZK - Czech Koruna

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IQD - Iraqi Dinar

ILS - New Israeli Sheqel

JMD - Jamaican Dollar

JPY - Yen

KZT - Tenge

JOD - Jordanian Dinar

KES - Kenyan Shilling

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AWG - Aruban Florin

VUV - Vatu

NZD - New Zealand Dollar

NIO - Cordoba Oro

NGN - Naira

NOK - Norwegian Krone

PKR - Pakistan Rupee

PAB - Balboa

PGK - Kina

PYG - Guarani

PEN - Sol

PHP - Philippine Peso

QAR - Qatari Rial

RUB - Russian Ruble

RWF - Rwanda Franc

SHP - Saint Helena Pound

SAR - Saudi Riyal

SCR - Seychelles Rupee

SGD - Singapore Dollar

VND - Dong

SOS - Somali Shilling

ZAR - Rand

SSP - South Sudanese Pound

SZL - Lilangeni

SEK - Swedish Krona

CHF - Swiss Franc

SYP - Syrian Pound

THB - Baht

TOP - Pa'anga

TTD - Trinidad and Tobago Dollar

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MKD - Denar

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UZS - Uzbekistan Sum

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XTS - Codes specifically reserved for testing purposes

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PLN - Zloty

BRL - Brazilian Real

CLF - Unidades de fomento

XSU - Sucre

USN - US Dollar (Next day)

XXX - The codes assigned for transactions where no currency is involved

usIndicator (optional)

String US Regulation S indicator.

Enum:

NOTAPPLICABLE

REGULATIONS

REGULATIONSPLUSRULE144A

expiryDate (optional)

Long Expiration date. format: int64

versionNumber (optional)

Integer Version of the derivative. Version is incremented when corporate event adjusting underlying closing price occurs. format: int32

settlementType (optional)

String Indicates settlement type of the derivative.

Enum:

NOTAPPLICABLE

CASHSETTLEMENT

PHYSICALDELIVERY

optionType (optional)

String Type of option.

Enum:

NOTAPPLICABLE

CALL

PUT

exerciseType (optional)

String Dictionary with option exercise styles

Enum:

AMER

EURO

NA

productName (optional)

String Name of the product.

referencePrice (optional)

BigDecimal Reference price.

status (optional)

String Financial instrument status

Enum:

ACTIVE

INACTIVE

MARKETOPERATIONSSUSPENSION

OUTSIDECOLLARSSTATIC
OUTSIDECOLLARSDYNAMIC
REGULATORYSUSPENSION
HYBRIDNOQUOTES
HYBRIDKNOCKOUT
HYBRIDKNOCKOUTBYISSUER

initialPhaseId (optional)

Long Id of starting phase for the instrument. format: int64

thresholdMax (optional)

BigDecimal upper threshold for leveraged instruments

thresholdMin (optional)

BigDecimal lower threshold for leveraged instruments

isLeverage (optional)

String Identifier of leverage instruments

Enum:
NOTAPPLICABLE
YES
NO

strikePriceCurrency (optional)

String Currency - ISO 4217 (2022/04/01) code (e.g. PLN)

Enum:

ALL - Lek
DZD - Algerian Dinar
ARS - Argentine Peso
AUD - Australian Dollar
BSD - Bahamian Dollar
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AMD - Armenian Dram
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MMK - Kyat
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ISK - Iceland Krona

INR - Indian Rupee

IDR - Rupiah

IRR - Iranian Rial

IQD - Iraqi Dinar

ILS - New Israeli Sheqel

JMD - Jamaican Dollar

JPY - Yen

KZT - Tenge

JOD - Jordanian Dinar

KES - Kenyan Shilling

KPW - North Korean Won

KRW - Won

KWD - Kuwaiti Dinar

KGS - Som

LAK - Lao Kip

LBP - Lebanese Pound

LSL - Loti

LRD - Liberian Dollar

LYD - Libyan Dinar

MOP - Pataca

MWK - Malawi Kwacha

MYR - Malaysian Ringgit

MVR - Rufiyaa

MUR - Mauritius Rupee

MXN - Mexican Peso

MNT - Tugrik

MDL - Moldovan Leu

MAD - Moroccan Dirham

OMR - Rial Omani

NAD - Namibia Dollar

NPR - Nepalese Rupee

ANG - Netherlands Antillean Guilder

AWG - Aruban Florin

VUV - Vatu

NZD - New Zealand Dollar

NIO - Cordoba Oro

NGN - Naira

NOK - Norwegian Krone

PKR - Pakistan Rupee

PAB - Balboa

PGK - Kina

PYG - Guarani

PEN - Sol

PHP - Philippine Peso

QAR - Qatari Rial

RUB - Russian Ruble

RWF - Rwanda Franc

SHP - Saint Helena Pound

SAR - Saudi Riyal

SCR - Seychelles Rupee

SGD - Singapore Dollar

VND - Dong

SOS - Somali Shilling

ZAR - Rand

SSP - South Sudanese Pound

SZL - Lilangeni

SEK - Swedish Krona

CHF - Swiss Franc

SYP - Syrian Pound

THB - Baht

TOP - Pa'anga

TTD - Trinidad and Tobago Dollar

AED - UAE Dirham

TND - Tunisian Dinar

UGX - Uganda Shilling

MKD - Denar

EGP - Egyptian Pound

GBP - Pound Sterling

TZS - Tanzanian Shilling

USD - US Dollar

UYU - Peso Uruguayo

UZS - Uzbekistan Sum

WST - Tala

YER - Yemeni Rial

TWD - New Taiwan Dollar

SLE - Leone

VED - Bolívar Soberano

UYW - Unidad Previsional

VES - Bolívar Soberano

MRU - Ouguiya

STN - Dobra

CUC - Peso Convertible

ZWL - Zimbabwe Dollar

BYN - Belarusian Ruble

TMT - Turkmenistan New Manat

GHS - Ghana Cedi

SDG - Sudanese Pound

UYI - Uruguay Peso en Unidades Indexadas

RSD - Serbian Dinar

MZN - Mozambique Metical

AZN - Azerbaijan Manat

RON - Romanian Leu

CHE - WIR Euro

CHW - WIR Franc

TRY - Turkish Lira

XAF - CFA Franc BEAC

XCD - East Caribbean Dollar

XOF - CFA Franc BCEAO

XPF - CFP Franc

XBA - Bond Markets Unit European Composite Unit (EURCO)
XBB - Bond Markets Unit European Monetary Unit (E.M.U.-6)
XBC - Bond Markets Unit European Unit of Account 9 (E.U.A.-9)
XBD - Bond Markets Unit European Unit of Account 17 (E.U.A.-17)
XAU - Gold
XDR - SDR (Special Drawing Right)
XAG - Silver
XPT - Platinum
XTS - Codes specifically reserved for testing purposes
XPD - Palladium
XUA - ADB Unit of Account
ZMW - Zambian Kwacha
SRD - Surinam Dollar
MGA - Malagasy Ariary
COU - Unidad de Valor Real
AFN - Afghani
TJS - Somoni
AOA - Kwanza
BGN - Bulgarian Lev
CDF - Congolese Franc
BAM - Convertible Mark
EUR - Euro
MXV - Mexican Unidad de Inversion (UDI)
UAH - Hryvnia
GEL - Lari
BOV - Mvdol
PLN - Zloty
BRL - Brazilian Real
CLF - Unidades de fomento
XSU - Sucre
USN - US Dollar (Next day)
XXX - The codes assigned for transactions where no currency is involved

icebergMinValue (optional)

BigDecimal Minimum iceberg order value.

productSubtype (optional)

String Product Subtype.

Enum:

SHARE
ALLOTMENTRIGHT
SUBSCRIPTIONRIGHT
TENDEROFFER

ISSUERIGHT

SUBSCRIPTIONWARRANT

BANKSECURITIES

BOND

TREASURYBOND

AGENCYBOND

MUNICIPALBOND

CORPORATEBANKBOND

CORPORATEFIRMBOND

CONVERTIBLEBOND

MORTGAGEBOND

MORTGAGEBACKEDBOND

PUBLICMORTGAGEBOND

BILL

TREASURYBILL

COMMERCIALBILL

EXCHANGETRADEDFUND

EXCHANGETRADEDNOTE

EXCHANGETRADEDCOMMODITY

INVESTMENTCERTIFICATE

INDEXFUTURES

STOCKFUTURES

CURRENCYFUTURES

BONDFUTURES

INTERESTRATEFUTURES

INDEXOPTIONS

STOCKOPTIONS

OPTIONWARRANTS

FACTORCERTIFICATES

TURBOCERTIFICATES

CAPITALPROTECTIONCERTIFICATES

BONUSCERTIFICATES

REVERSECONVERTIBLECERTIFICATES

EXPRESSCERTIFICATES

DISCOUNTCERTIFICATES

INDEXTRACKERCERTIFICATES

OTHERINVESTMENTCERTIFICATES

STRUCTUREDNOTES

REFERENCERATE

INTERESTRATE

EXCHANGERATE

PRICEINDEX

TOTALRETURNINDEX

SECTORPRICEINDEX

SECTORTOTALRETURNINDEX

DIVIDENDINDEX

STRATEGYPRICEINDEX

STRATEGYTOTALRETURNINDEX

COMMODITYINDEX

BONDTOTALRETURNINDEX

accruedInterestValue (optional)

BigDecimal Accrued iterest value of the instrument

kid (optional)

String KID.

kidIssueDate (optional)

Long KID issue date. format: int64

valueAtRisk (optional)

Integer Value at risk. format: int32

externalUnderlyingId (optional)

Long External underlying ID. format: int64

7.1.21. MARKETSTRUCTUREVIEW

Messages defining the Market structure.

id (optional)

Long ID of the market structure. format: int64

mic (optional)

String Market structure's Market Identifier Code (MIC) as specified in ISO 10383.

name (optional)

String Market structure name assigned by market operator.

marketModelType (optional)

String Market Model

Enum:

NOTAPPLICABLE

CLOB

BLOCK

HYBRID

CROSS

IPO

TENDEROFFER

REDISTRIBUTION

children (optional)

array[MarketStructureView] Nested market structures.

7.1.22. PRICELEVELSNAPSHOTVIEW

BBO price levels and volumes.

maxDepth (optional)

Integer The number of BBO levels contained in the message. format: int32

buy (optional)

array[PriceLevelView] Price levels for buy side.

sell (optional)

array[PriceLevelView] Price levels for sell side.

mmBuyQuoteLevel (optional)

Integer Id of an level on which mm quote rests (0 means no mm). format: int32

mmSellQuoteLevel (optional)

Integer Id of an level on which mm quote rests (0 means no mm). format: int32

7.1.23. PRICELEVELVIEW

Data type for storing snapshot price level.

price (optional)

BigDecimal Price level in currency units.

quantity (optional)

Integer Quantity of securities available at a given price level.

orderCount (optional)

Integer Number of open orders at a given price level. format: int32

7.1.24. PUBLICPRODUCTIDENTIFICATIONVIEW

Product identification based on well-known identification types, such as ISIN.

productIdentification (optional)

String Product identification, for example its ISIN code.

productIdentificationType (optional)

String Type of product identification (for example ISIN or SEDOL).

Enum:

ISIN

7.1.25. REALTIMEINDEXVIEW

Message providing real-time index values for instruments.

instrumentId (optional)

Long ID of the instrument. format: int64

indexLevelCode (optional)

String Enumeration of index levels

Enum:

PREVIOUSCLOSINGVALUE

THEORETICALVALUEBEFOREOPENING

VALUEBEFOREOPENING

OPENINGVALUE

CURRENTVALUE

PRECLOSINGVALUE

CLOSINGVALUE

VALUEWITHOUTOPENING

numOfActiveInstruments (optional)

Integer Number of instruments – participants of the index, for which the quotation was set during the session. format: int32

indIndexOpeningPortfolio (optional)

BigDecimal Indicator of the index opening portfolio W(t). Percentage share of instruments with at least one trade during the session.

indexValue (optional)

BigDecimal The value of the last level for the index according to the definition provided in the indexLevelCode.

pctChangeIndexValPrevSession (optional)

BigDecimal Percentage change of the index value in relation to the value of the closing index from the previous session.

tradingValue (optional)

BigDecimal Value of trading in the instruments from the given index.

sessionLow (optional)

BigDecimal Lowest value of the day.

sessionHigh (optional)

BigDecimal Highest value of the day.

indexValueBid (optional)

BigDecimal Value of the buy index based on the best sell offers of instruments.

indexValueAsk (optional)

BigDecimal Value of the sell index based on the best sell offers of instruments.

midSpreadIndex (optional)

BigDecimal Mean of indexValueBid and indexValueAsk.

differenceCentralSpread (optional)

BigDecimal The point difference between midSpreadIndex and indexValue.

7.1.26. TICKTABLEVIEW

Tick Table.

tickTableId (optional)

Long Tick table ID. format: int64

ticks (optional)

array[TickView] Ticks.

7.1.27. TICKVIEW

Tick size definition.

tickSize (optional)

Long Size of the tick. format: int64

lowerBound (optional)

BigDecimal Tick size lower bound.

7.1.28. TRADINGPHASEVIEW

Trading phase definition

tradingPhaseId (optional)

Long Trading phase ID. format: int64

tradingPhaseSettlementCycle (optional)

Integer Settlement cycle for transactions made during a continuous phase. format: int32

tradingPhaseMaxBlockSettlementCycle (optional)

Integer Max settlement cycle for block transactions. format: int32

staticCollarVolatilityAuctionId (optional)

Long Static collar volatility auction ID. format: int64

dynamicCollarVolatilityAuctionId (optional)

Long Dynamic collar volatility auction ID. format: int64

tradingPhaseStartTime (optional)

Integer Trading phase start time.

tradingPhaseType (optional)

String Type of trading phase.

Enum:

CONTINUOUSPRICETIME

CONTINUOUSREFPRICETIME

CONTINUOUSLASTAUCTIONTIME

AUCTIONOPENING

BLOCKEXACTMATCHING

NOTRADINGCLOSED

UNCROSSING

AUCTIONCLOSING

AUCTIONINTRADAY

AUCTIONVOLATILITYSTATIC

AUCTIONVOLATILITYDYNAMIC

AUCTIONEXTENDEDVOLATILITYSTATIC

AUCTIONEXTENDEDVOLATILITYDYNAMIC

NOTRADINGEARLYMONITORING

NOTRADINGLATEMONITORING

HYBRID

HYBRIDBUYONLY

HYBRIDPRETRADE

UNSUSPENSIONAUCTION

IPO

TENDEROFFER

HYBRIDPRETRADEBUYONLY

uncrossing (optional)

Boolean True if the phase includes an uncrossing.

extStaticCollarVolatilityAuctionId (optional)

Long ID of Static Collar Volatility Auction. format: int64

extDynamicCollarVolatilityAuctionId (optional)

Long ID of Dynamic Collar Volatility Auction. format: int64

lastAuctionPhaseId (optional)

Long ID of last auction phase. format: int64

7.1.29. TRADINGSCHEDULEVIEW

Trading schedule

tradingScheduleId (optional)

Long Trading schedule ID. format: int64

phases (optional)

array[TradingPhaseView] Trading phases.