# Sorting and Filtering APIs

Instead of making a GET call to retrieve a single object based on a known identifier, filters or combinations of filters can be used to create a search query instead. As a collection of results will be returned, sorting can also be applied to the query to organize the data in the response.

The exact filtering method varies depending on the type of API. The Fulfillment APIs (shipments and packages) have very different syntax from the Non-Fulfillment APIs (customers, locations, returns, and orders), and the Non-Fulfillment APIs support specific parameters as the available filters. All of these syntax guidelines and value options are described in this guide under the appropriate section.

# Sorting and Filtering Fulfillment APIs

The Shipments and Packages APIs support pagination, the ability to sort results in ascending or descending order based on the search term, and filtering by attributes. They use a different syntax than all other Kibo Composable Commerce Platform APIs (such as Order, Customer, Returns, etc.).

The basic template for this syntax is:

.../?page={page}&pageSize={pageSize}&sort={field}&filter={filter}

The attributes that can be used to customize this query are listed below.

- page: Accepts a numeric value (starting from 0) indicating which page of results to begin on.

  There is no set maximum value. The number of available pages depends on how many total results are returned from the query.
- pageSize: Accepts a numeric value greater than 0 and up to a maximum of 200 results to determine how many results are returned per page. The default value is 20.
- **fields**: Filtering API fields based on <u>Squiggly</u> syntax, such as *?fields=id,reporter[firstName]*. See the Squiggly documentation for more information.
- sort: Use sort=field to arrange results in ascending order. Use sort=-field to arrange results
  in descending order.
- **filter**: Supports filtering by API parameters based on any of a number of logical operators.

  See below for the full list of operators and examples. While there is no limit to the number of filters that can be applied, it is Kibo's recommended best practice to use as few as possible.

  Using a large number of filters may result in a slow query.
- quickSearch: Accepts any alphanumeric value to search by external order ID, order number (exact match), shipment number (exact match), recipient name, first line of the receiving address, email address, item product code, or item name. There is no maximum length for this value.

• **isLate:** Accepts a true/false Boolean value. If true, it will query for shipments created at least one day ago.

### **Filter Operators**

Filtering is based on comparisons and logical operators to find results relative to the API parameters being searched on. Note that a semicolon (;) can be used instead of AND, and a comma (,) can be used instead of OR.

| Operator              | Syntax     |
|-----------------------|------------|
| Equal                 | =eq= or == |
| Not Equal             | =ne= or != |
| Greater Than          | =gt= or >  |
| Greater Than Or Equal | =ge= or >= |
| Less Than             | =lt= or <  |
| Less Than Or Equal    | =le= or <= |
| In                    | =in=       |
| Not In                | =out=      |
| Starts With           | =sw=       |
| Contains              | =cont=     |
| Between               | =between=  |
| Regex                 | =re=       |
| Exists                | =ex=       |
| And                   | and*       |
| Or                    | or**       |

#### **Filtering Examples**

This query searches for late shipments and filters the results based on a combination of the fulfillment location AND shipment status, to return the late shipments for a particular location.

 $.../shipments/? is Late = true \& filter = fulfillment Location Code = = Example\_Location; shipment Status = = READY$ 

In this query, a regex filter is used to get shipments where the sender's email address ends with

..../shipments/?filter=originContact.email=re=".\*@kibocommerce.com"

# Sorting and Filtering Non-Fulfillment APIs

All other APIs (such as Customer, Returns, Orders, Products, and so forth) all use the same syntax for filtering and sorting. However, the exact parameters that may be filtered on vary based on the API.

The general sorting and filtering syntax and operators are defined below, followed by individual lists of filterable parameters by API.

#### Sorting

Sorting is achieved by using the *sortBy* field and setting it to an API parameter followed by either ascending or descending.

- **asc**: Sort in ascending order based on a given parameter (e.g. .../?sortBy=id+asc)
- desc: Sort in descending order based on a given parameter (e.g. .../? sortBy=createDate+desc)

If you omit the direction symbol, the default sort direction is "ascending."

You can sort by as many parameters as you want. Sort multiple parameters by using a comma to separate the parameters and ascending/descending preferences:

.../api/commerce/orders/?sortBy = order.acceptedDate + asc, order.amountRemainingForPayment + desc



The product variations service has a special parametrized sort that other API services do not support. The property Attribute Value Internal in the ProductVariations API allows sorting by the Attribute Id. Unlike other services, Attribute Value Internal is a dynamically calculated value for ProductVariations.

### **Filtering**

The full list of logical operators for filtering is:

| Operator     | Syntax | Example                             |
|--------------|--------|-------------------------------------|
| Equals       | eq     | /?filter=id <b>eq</b> 2             |
| Not Equals   | ne     | /?filter=createBy <b>ne</b> Dave    |
| Greater Than | gt     | /?filter=discountTotal <b>gt</b> 50 |

| Operator                 | Syntax         | Example   |
|--------------------------|----------------|---|
| Greater Than Or<br>Equal | ge             | /?filter=createDate <b>ge</b> 2015-01-01T12:00:00z                          |
| Less Than                | lt             | /?filter=submittedDate It 2015-01-01T12:00:00z                              |
| Less Than Or<br>Equal    | le             | /?filter=taxTotal <b>le</b> 10  |
| And                      | and            | /?filter=size eq 11 <b>and</b> product.productPrice.catalogListPrice eq 100 |
| Or                       | or             | /?filter=size eq 11 <b>or</b> size eq 11.5                                  |
| Group                    | ()             | /?filter=(size eq 11 or name sw shoe) or (size eq 13)                       |
| Starts With              | SW             | /?filter=name <b>sw</b> bro   |
| Contains                 | cont           | /?filter=name <b>cont</b> nike  |
| In                       | in[NN+1]       | /?filter=property in[1,2,3]   |
| Between                  | between[N1,N2] | /?filter=property between[0,100]  |

Note that any special characters in the filters must be escaped by inserting a caret before the character in order for the filter to work (for example,

 $filter=content.productName+cont+women^s$ ). These special characters are  $^/$  "  $^\prime$  ,  $\{$   $\}$  ( )

#### Filtering Examples

The following query retrieves orders that were created on or after January 1st, 2020 and have a discount total of more than \$50:

.../api/commerce/orders/?filter=createdDate+ge+2015-01-01T12:00:00z+and+discountTotal+gt+50

The group filter is used to configure multiple logic operators and parameter combinations, such as querying for a specific shoe size and name OR alternatively, only a different size:

```
.../api/commerce/orders/?filter=(size+eq+11+or+name+sw+shoe)+or+(size eq 13)
```

The "in" operator searches for results that include any of the given set of values. (In contrast, the "between" operators only accepts two numeric operators as the beginning and end of the chronological set.) To retrieve orders with a property value of 1, 2, or 3:

```
> .../api/commerce/orders/?filter=property+in[1,2,3]
```

Regardless of what filtering is applied, *sortBy* can always be added to sort the results.

## **Customer Accounts API Filters**

The following API parameter and filter combinations are supported for searching customer accounts (.../commerce/customer/accounts). Not all fields are applicable to sorting based on ascending or descending order, so the sortable parameters are also noted in the table.

| Field              | Operators   | Possible Values  | Sort<br>By? |
|--------------------|---|--|-------------|
| acceptsMarketing   | Equals (eq)   | A Boolean value, specified as true or false.                             | Yes         |
| account.updateDate | Equals (eq) Less Than (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge)                     | A date/time in UTC format.   | No          |
| attributes.id      | Equals (eq) Does Not Equal (ne) Less Than (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge) | Any integer.   | No          |
| attributes.name    | Equals (eq) Does Not Equal (ne)   | This matches the fully qualified name of the customer account attribute. | No          |

| Field                            | Operators   | Possible Values  | Sort<br>By? |
|----------------------------------|---|--|-------------|
| attributes.value                 | Equals (eq) Does Not Equal (ne)   | Depend on the data type of the attribute. Supported types are string, date/time, decimal, and Boolean. | No          |
| companyOrOrganization            | Equals (eq)   | Any alphanumeric string.   | Yes         |
| commerceSummary.lastOrderDate    | Equals (eq) Less Than (It) Less Than or Equal To (Ie) Greater Than (gt) Greater Than or Equal To (ge) | A date/time in UTC format. You can specify just the date portion (YYYY-MM-DD) for gt or lt.            | Yes         |
| commerceSummary.orderCount       | Equals (eq) Less Than (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge) | Any integer.   | Yes         |
| commerceSummary.totalOrderAmount | Equals (eq) Less Than (It) Less Than or Equal To (Ie) Greater Than (gt) Greater Than or Equal To (ge) | Any integer.   | Yes         |

| Field                         | Operators   | Possible Values            | Sort<br>By? |
|-------------------------------|---|----------------------------|-------------|
| commerceSummary.wishlistCount | Equals (eq) Less Than (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge) | Any integer.               | Yes         |
| contacts.firstName            | Contains (cont) Equals (eq) Starts With (sw)  | Any alphanumeric string.   | No          |
| contacts.lastNameOrSurname    | Contains (cont) Equals (eq) Starts With (sw)  | Any alphanumeric string.   | No          |
| contacts.email                | Contains (cont) Equals (eq) Starts With (sw)  | Any alphanumeric string.   | No          |
| createDate                    | Equals (eq) Less Than (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge) | A date/time in UTC format. | Yes         |
| customerSet                   | Equals (eq) Does Not Equal (ne)   | Any alphanumeric string.   | No          |
| emailAddress                  | Contains (cont) Equals (eq) Does Not Equal (ne) Starts With (sw)                                      | Any alphanumeric string.   | No          |

| Field             | Operators  | Possible Values                                     | Sort<br>By? |
|-------------------|--|---|-------------|
| externalld        | Equals (eq) Starts With (sw) Contains (cont)                     | Any alphanumeric string.                            | Yes         |
| firstName         | Contains (cont) Equals (eq) Does Not Equal (ne) Starts With (sw) | Any alphanumeric string.                            | No          |
| lastName          | Contains (cont) Equals (eq) Does Not Equal (ne) Starts With (sw) | Any alphanumeric string.                            | No          |
| migrationRequired | Equals (eq)  Does Not Equal (ne)                                 | A Boolean value, specified as true or false.        | No          |
| segments.id       | Equals (eq)  Does Not Equal (ne)                                 | Any integer.  | No          |
| segments.code     | Equals (eq) Does Not Equal (ne)                                  | Any alphanumeric string.                            | No          |
| segments.name     | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) | Any alphanumeric string.                            | No          |
| userld            | Equals (eq)  Does Not Equal (ne)                                 | Any alphanumeric string (max length 55 characters). | Yes         |
| userName          | Equals (eq) Does Not Equal (ne)                                  | Any alphanumeric string (max length 55 characters). | No          |

### Filtering Examples

commerce/customer/accounts?pageSize=20&filter=segments.id ne 1 and attributes.id eq 4

## **Locations API Filters**

The following API parameter and filter combinations are supported for searching locations. Not all fields are applicable to sorting based on ascending or descending order, so the sortable parameters are also noted in the table.

| Field                | Operators                        | Possible Values  | Sort<br>By? |
|----------------------|----------------------------------|--|-------------|
| code                 | Equals (eq)                      | Any valid location code.   | Yes         |
| countryCode          | Equals (eq)                      | Any valid two-letter ISO country code.                                 | No          |
| fulfillmentType.Code | Equals (eq) Does Not Equal (ne)  | Any valid location type code.  | No          |
| geo                  | Near (near)                      | Comma-separated geographical coordinates and distance value in meters. | No          |
| isDisabled           | Equals (eq) Does Not Equal (ne)  | A Boolean value, specified as true or false.                           | No          |
| locationType.Code    | Equals (eq) Does Not Equal (ne)  | Any valid location type code.  | No          |
| name                 | Contains (cont) Starts With (sw) | Any alphanumeric string.   | Yes         |
| postalOrZipCode      | Equals (eq)                      | Any valid zip or postal code.  | No          |
| state                | Equals (eq)                      | Any valid state code.  | No          |
| supportsInventory    | Equals (eq) Does Not Equal (ne)  | A Boolean value, specified as true or false.                           | Yes         |

# **Orders API Filters**

When searching for a collection of orders using the q parameter in the request URL, you can enter a search term that will search across the following fields:

- Order number
- Shopper name, email, or company

When you perform a keyword search for orders based on the shopper information, the system

searches for orders with the shopper name defined in the order billing information. If a different shopper's name appears in the billing information, the system will not return the order in the search results.

As the Orders API supports more filters than the others listed above, the filters will be provided in two tables. The first table describes the contact parameters that are supported for filtering. These all apply to <code>billingInfo.billingContact</code>, <code>fulfillmentInfo.fulfillmentContact</code>, and <code>shippingInfo.shippingContact</code>. When using any of these filters, prepend one of those three contact types to the parameter name to specify the data being referenced. For instance, a billing contact's name and a fulfillment contact's name are differentiated in the following query:

.../? filter = billingInfo.billingContact + eq + NAME + and + fulfillmentInfo.fulfillmentContact.name + eq + NAME + and + fulfillmentContact.name + eq + fulfillmentContact.name

| Field                    | Operators  | Possible Values              | Sort<br>By |
|--------------------------|--|------------------------------|------------|
| .address                 | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any alphanumeric string      | No         |
| .address.cityOrTown      | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any alphanumeric string      | No         |
| .address.countryCode     | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any valid ISO country code   | No         |
| .address.postalOrZipCode | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any valid ZIP or postal code | No         |
| .address.stateOrProvince | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any alphanumeric string      | No         |

| Field                          | Operators  | Possible Values         | Sort<br>By |
|--------------------------------|--|-------------------------|------------|
| .address.companyOrOrganization | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any alphanumeric string | No         |
| .address.email                 | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any alphanumeric string | No         |
| .firstName                     | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any alphanumeric string | Yes        |
| .lastNameOrSurname             | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw) | Any alphanumeric string | Yes        |
| .phoneNumber                   | Equal (eq)   | Any numeric string      | Yes        |

Note that filtering by phone number will not necessarily look for an exact match, but will instead look for results that end with the filtered value. For example, if you have the phone number 1-512-333-4444, then searching for 15123334444, 5123334444, or 3334444 will all return that phone number.

The second table describes all other filterable parameters for the Orders API.

| Field      | Operators  | Possible Values                           | Sort<br>By? |
|------------|--|---|-------------|
| cardNumber | Contains (cont) Equal (eq) Not Equal (ne) In (in) Starts With (sw) | Any integer with a maximum of four digits | Yes         |

| Field  | Operators  | Possible Values                                       | Sort<br>By? |
|--|--|---|-------------|
| Note: this only applies to cancelled orders. | Equal (eq) Not Equal (ne) Greater Than (gt) Less Than (gt)   | Any string in date-time format (can exclude the time) | Yes         |
| channelCode                                  | Equal (eq) Not Equal (ne) Starts With (sw)   | Any alphanumeric string                               | Yes         |
| Note: this only applies to closed orders.    | Equal (eq) Not Equal (ne) Greater Than (gt) Less Than (lt)   | Any string in date-time format (can exclude the time) | Yes         |
| currencyCode                                 | Equal (eq) Not Equal (ne)  | Any valid ISO currency code                           | No          |
| customerInteractionType                      | Equal (eq) Not Equal (ne) Starts with (sw)   | Any valid interaction type (e.g. website, store)      | Yes         |
| discountTotal                                | Equal (eq) Not Equal (ne) Greater Than (gt) Greater Than Or Equal To (ge) Less Than Or Equal To (le) | Any decimal   | No          |
| dutyTotal                                    | Equal (eq) Not Equal (ne) Greater Than (gt) Greater Than Or Equal To (ge) Less Than Or Equal To (le) | Any decimal   | Yes         |

| Field                         | Operators   | Possible Values                     | Sort<br>By? |
|-------------------------------|---|-------------------------------------|-------------|
| email                         | Contains (cont) Equal(eq) Not Equal (ne) Starts With (sw)             | Any alphanumeric string             | No          |
| externalld                    | Contains (cont) Equal(eq) Not Equal (ne) Starts With (sw)             | Any valid external order identifier | Yes         |
| fulfillmentStatus             | Contains (cont)  Equal(eq)  Not Equal (ne)  In (in)  Starts With (sw) | Any valid fulfillment status        | Yes         |
| id                            | Equal (eq)<br>Not Equal (ne)  | Any valid internal order identifier | Yes         |
| ipAddress                     | Equal (eq)<br>Not Equal (ne)  | Any valid IP address                | No          |
| items.fulfillmentLocationCode | Equal (eq) Not Equal (ne) Starts With (sw)                            | Any alphanumeric string             | No          |
| items.mfgPartNumber*          | Equal (eq) Not Equal (ne) Starts With (sw                             | Any alphanumeric string             | No          |
| items.upc*                    | Equal (eq) Not Equal (ne) Starts With (sw                             | Any alphanumeric string             | No          |

| Field          | Operators   | Possible Values           | Sort<br>By? |
|----------------|---|---------------------------|-------------|
| orderNumber    | Equal (eq) Not Equal (ne) Greater Than (gt) Greater Than Or Equal To (gt) Less Than Or Equal To (gt)                      | Any valid order number    | Yes         |
| originalCartId | Equal (eq)<br>Not Equal (ne)  | Any valid cart identifier | Yes         |
| paymentStatus  | Contains (cont) Equal (eq) Not Equal (ne) In (in) Starts With (sw)  | Any valid payment status  | Yes         |
| returnStatus   | Equal   | Any valid return status   | No          |
| siteId         | Equal (eq) Not Equal (ne)   | Any valid site identifier | No          |
| subtotal       | Equals (eq) Does Not Equal (ne) Greater than (gt) Greater Than or Equal To (ge) Less than (lt) Less Than or Equal To (le) | Any decimal               | Yes         |
| taxTotal       | Equals (eq) Does Not Equal (ne) Greater than (gt) Greater Than or Equal To (ge) Less than (lt) Less Than or Equal To (le) | Any decimal               | No          |

| Field           | Operators  | Possible Values  | Sort<br>By? |
|-----------------|--|--|-------------|
| type            | Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw)   | Online, Offline  | Yes         |
| userld          | Equal (eq) Not Equal (ne)  | Any valid user identifier  | No          |
| visitId         | Equal (eq) Not Equal (ne) Starts With (sw)   | Any alphanumeric string  | No          |
| webSessionId    | Equal (eq) Not Equal (ne) Starts With (sw)   | Any alphanumeric string  | Yes         |
| total           | Equals (eq)  Does Not Equal (ne)  Greater than (gt)  Greater Than or Equal To (ge)  Less than (It)  Less Than or Equal To (le) | Any decimal  | Yes         |
| Attributes.Name | Equals (eq)  Does Not Equal (ne)   | This matches the fully qualified name of the customer account attribute. | No          |

| Field                            | Operators   | Possible Values  | Sort<br>By? |
|----------------------------------|---|--|-------------|
| Attributes.Id                    | Equals (eq) Does Not Equal (ne) Less Than (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge) | Any integer.   | No          |
| Attributes.AttributeDefinitionId | Equals (eq) Does Not Equal (ne) Less Than (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge) | Any integer.   | No          |
| Attributes.Value                 | Equals (eq)  Does Not Equal (ne)  | Depend on the data type of the attribute. Supported types are string, date/time, decimal, and Boolean. | No          |

<sup>\*</sup>These parameters correspond to the parameter of the same name under the product object of the item data block. In other words, filtering on *items.mfgPartNumber* will be interpreted as a filter referencing *items.product.mfgPartNumber*.

# **Checkouts API Filters**

The following API parameter and filter combinations are supported for checkout API filters (https://t{tenantld}-s{siteld}.{env}.mozu.com/api/commerce/checkouts). Not all parameters are applicable to sorting based on ascending or descending order, so the sortable parameters are also noted in the table.

The table describes all other filterable parameters for the Checkout APIs.

| Field      | Operators  | Possible Values   | Sort By? |
|------------|--|---|----------|
| startIndex | Contains (cont)  Equal (eq)  Not Equal (ne)  In (in)  Starts With (sw) | Any integer with a maximum of two digits  (The default value is 0. Optional.)                                 | Yes      |
| pageSize   | Equal (eq)  Not Equal (ne)  Greater Than (gt)  Less Than (lt)          | Any integer with a maximum of three digits  (The default value is 20 and the maximum value is 200. Optional.) | Yes      |
| sortBy     | Equal (eq)  Not Equal (ne)  Starts With (sw)                           | Any alphanumeric string   | Yes      |
| filter     | Equal (eq)  Not Equal (ne)  Greater Than (gt)  Less Than (lt)          | Any alphanumeric string   | Yes      |
| q          | Equal (eq) Not Equal (ne)  | Any alphanumeric string   | No       |
| qLimit     | Equal (eq)  Not Equal (ne)  Starts with (sw)                           | Any integer  (Text to perform a search on)  | Yes      |

| Field          | Operators  | Possible Values         | Sort By? |
|----------------|--|-------------------------|----------|
| responseFields | Equal (eq)  Not Equal (ne)  Greater Than (gt)  Greater Than Or  Equal To (gt)  Less Than Or Equal  To (lt) | Any alphanumeric string | No       |

## **Product Attributes API Filters**

The following API parameter and filter combinations are supported for searching product attributes ( .../commerce/catalog/admin/attributeDefinition/attributes ). Not all fields are applicable to sorting based on ascending or descending order, so the sortable parameters are also noted in the table.

| Field         | Operators  | Possible Values          |
|---------------|--|--------------------------|
| attributeCode | Contains (cont) Equals(eq) Does Not Equal (ne) Starts With (sw)    | Any alphanumeric string. |
| adminName     | Contains (cont) Equals(eq) Does Not Equal (ne) Starts With (sw)    | Any alphanumeric string. |
| namespace     | Contains (cont)  Equals(eq)  Does Not Equal (ne)  Starts With (sw) | Any alphanumeric string. |

| Field        | Operators   | Possible Values   |
|--------------|---|---|
| inputType    | Contains (cont) Equals(eq) Does Not Equal (ne) Starts With (sw) | YesNo Date DateTime List TextBox TextArea   |
| valueType    | Contains (cont) Equals(eq) Does Not Equal (ne) Starts With (sw) | Predefined AdminEntered ShopperEntered  |
| dataType     | Contains (cont) Equals(eq) Does Not Equal (ne) Starts With (sw) | String Number Bool Product  |
| content.name | Contains (cont) Equals(eq) Does Not Equal (ne) Starts With (sw) | Any alphanumeric string.  |
| createDate   | Equals(eq) Does Not Equal (ne) Greater Than (gt) Less Than (lt) | A date/time in UTC format. You can specify just the date portion (YYYY-MM-DD) for gt or lt. |
| updateDate   | Equals(eq) Does Not Equal (ne) Greater Than (gt) Less Than (lt) | A date/time in UTC format. You can specify just the date portion (YYYY-MM-DD) for gt or lt. |

# **Products API Filters**

The following API parameter and filter combinations are supported for searching products (commerce/catalog/admin/products).

If filtering on a custom attribute name, you must specify the Fully Qualified Name (FQN) of the attribute. For example, if there is a custom attribute called "color" then use the filter

"tenant~color eq Red" to retrieve only the Red products.

| Field                       | Operators                                    | Possible Values   |
|-----------------------------|--|---|
| productCode                 | Contains (cont) Equals (eq) Starts With (sw) | Any alphanumeric string.  |
| productInCatalogs.catalogid | In (in)                                      | A list of integers.  This is specifically supported for the Get Products API call, and allows you to search for products across multiple catalogs. Applying a filter such as ? filter=productInCatalogs.catalogid IN [1,2,3] will return all products that are in at least one of those catalogs. |
| content.productName         | Contains (cont) Equals (eq) Starts With (sw) | Any alphanumeric string.  |
| categoryld                  | Equals (eq) Does Not Equal (ne)              | Any integer.  |
| productTypeId               | Equals (eq)                                  | Any integer.  |
| isValidForProductType       | Equals (eq)                                  | A Boolean value specified as true or false.   |
| hasConfigurable Options     | Equals (eq)                                  | A Boolean value specified as true or false.   |
| isVariation                 | Equals (eq)                                  | A Boolean value specified as true or false.   |
| manageStock                 | Equals (eq)                                  | A Boolean value specified as true or false.   |

| Field                   | Operators   | Possible Values  |
|-------------------------|---|--|
| maplsProductDetailsOnly | Equals (eq)   | A Boolean value specified as true or false.  This is specifically supported for the Get Products API call, and allows you to ignore the isProductDetailsOnly field when set to true. This means that the call will return all properties associated with the product, where otherwise this particular API endpoint may exclude some. |
| isRecurring             | Equals (eq)   | A Boolean value specified as true or false.  |
| isTaxable               | Equals (eq)   | A Boolean value specified as true or false.  |
| price.price             | Equals (eq) Greater Than (gt) Greater Than or Equal To (ge) Less Than (It) Less Than or Equal To (Ie) | Any decimal.   |
| productSequence         | Equals (eq) Greater Than (gt) Greater Than or Equal To (ge) Less Than (lt) Less Than or Equal To (le) | Any integer.   |

| Field      | Operators   | Possible Values   |
|------------|---|---|
| Sale Price | Equals (eq) Greater Than (gt) Greater Than or Equal To (ge) Less Than (lt) Less Than or Equal To (le) | Any decimal.  |
| createDate | Equals (eq) Greater Than (gt) Greater Than or Equal To (ge) Less Than (lt) Less Than or Equal To (le) | A date/time in UTC format. You can specify just the date portion (YYYY-MM-DD) for gt or lt. |
| updateDate | Equals (eq) Greater Than (gt) Greater Than or Equal To (ge) Less Than (lt) Less Than or Equal To (le) | A date/time in UTC format. You can specify just the date portion (YYYY-MM-DD) for gt or lt. |
| createBy   | Equals (eq)   | Any valid user ID.  |
| updateBy   | Equals (eq)   | Any valid user ID.  |

## **Product Storefront Location Filter**

Additionally, you can filter the storefront Product Search API by locations.

| Field            | Operators              | Possible Values   |
|------------------|------------------------|---|
| locationsInStock | Equals (eq)<br>In (in) | Any location code (eq) or array of location codes (in). |

# Product Type API Filters

The following API parameter and filter combinations are supported for searching product types (commerce/catalog/admin/attributedefinition/producttypes.

| Field             | Operators  | Possible Values                             |
|-------------------|--|---|
| name              | Equals (eq)  Does Not Equal (ne)  Starts With (sw)               | Any alphanumeric string.                    |
| id                | Equals (eq) Does Not Equal (ne) Greater Than (gt) Less Than (lt) | Any integer.                                |
| isBaseProductType | Equals (eq) Does Not Equal (ne)                                  | A Boolean value specified as true or false. |

## **Returns API Filters**

The following API parameter and filter combinations are supported for searching returns. Not all fields are applicable to sorting based on ascending or descending order, so the sortable parameters are also noted in the table.

| Field        | Operators   | Possible Values   | Sort<br>By? |
|--------------|---|---|-------------|
| id           | Equal   | Any valid return identifier   | No          |
| returnNumber | Equal (eq) Not Equal(ne)  | Any valid return number   | No          |
| status       | Equal, Not Equal  | Any valid return status   | No          |
| createDate   | Equals (eq) Greater Than (gt) Greater Than or Equal To (ge) Less Than (lt) Less Than or Equal To (le) | A date/time in UTC format. You can specify just the date portion (YYYY-MM-DD) for gt or lt. | Yes         |

| Field      | Operators   | Possible Values   | Sort<br>By? |
|------------|---|---|-------------|
| updateDate | Equals (eq) Greater Than (gt) Greater Than or Equal To (ge) Less Than (It) Less Than or Equal To (Ie) | A date/time in UTC format. You can specify just the date portion (YYYY-MM-DD) for gt or lt. | Yes         |
| createBy   | Equals (eq)   | Any valid user ID.  | No          |
| updateBy   | Equals (eq)   | Any valid user ID.  | No          |

# **Subscription API Filters**

The following API parameter and filter combinations are supported for searching subscription. Not all fields are applicable to sorting based on ascending or descending order, so the sortable parameters are also noted in the table.

| Field          | Operators   | Possible<br>Values | Sort<br>By? |
|----------------|---|--------------------|-------------|
| subscriptionId | Equals (eq) Does Not Equal (ne)   | String             | No          |
| Number         | Equals (eq) Does Not Equal (ne) Greater than (gt) Greater Than or Equal To (ge) Less than (lt) Less Than or Equal To (le) | Integer            | Yes         |

| Field         | Operators  | Possible<br>Values | Sort<br>By? |
|---------------|--|--------------------|-------------|
| id            | Equals (eq) Does Not Equal (ne)  | String             | No          |
| externalld    | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont)         | String             | No          |
| parentOrderId | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| siteId        | Equals (eq) Does Not Equal (ne)  | Integer            | No          |
| tenantId      | Equals (eq) Does Not Equal (ne)  | Integer            | No          |

| Field                                    | Operators  | Possible<br>Values                   | Sort<br>By? |
|--|--|--------------------------------------|-------------|
| status                                   | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String                               | Yes         |
| status.in                                | Equals (eq) Does Not Equal (ne)  | Comma<br>separated<br>statues        | No          |
| ipaddress                                | Equals (eq) Does Not Equal (ne)  | String                               | No          |
| currencycode                             | Equals (eq) Does Not Equal (ne)  | Any valid<br>ISO<br>currency<br>code | No          |
| onetimeproduct                           | Does Not<br>Equal (ne)   | String                               | No          |
| onetimeshippingmethod.shippingmethodcode | Equals (eq) Does Not Equal (ne)  | String                               | No          |
| websessionid                             | Equals (eq) Does Not Equal (ne) Starts With (sw)                         | String                               | No          |

| Field                                | Operators  | Possible<br>Values | Sort<br>By? |
|--------------------------------------|--|--------------------|-------------|
| channelcode                          | Equals (eq) Does Not Equal (ne) Starts With (sw)                         | String             | No          |
| visitid                              | Equals (eq) Does Not Equal (ne) Starts With (sw)                         | String             | No          |
| customerinteractiontype              | Equals (eq) Does Not Equal (ne) Starts With (sw)                         | String             | No          |
| Email                                | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| billinginfo.billingcontact.firstname | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |

| Field  | Operators  | Possible<br>Values | Sort<br>By? |
|--|--|--------------------|-------------|
| billinginfo.billingcontact.lastnameorsurname     | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| billinginfo.billingcontact.companyororganization | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| billinginfo.billingcontact.email                 | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| billinginfo.billingcontact.address               | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |

| Field  | Operators  | Possible<br>Values | Sort<br>By? |
|--|--|--------------------|-------------|
| billinginfo.billingcontact.address.cityortown      | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| billinginfo.billingcontact.address.countrycode     | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| billinginfo.billingcontact.address.stateorprovince | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| billinginfo.billingcontact.address.postalorzipcode | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont)         | String             | No          |

| Field  | Operators  | Possible<br>Values | Sort<br>By? |
|--|--|--------------------|-------------|
| cardnumber   | Contains<br>(cont)<br>In (in)  | String             | No          |
| FulfillmentInfo.FulfillmentContact.FirstName             | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| FulfillmentInfo.FulfillmentContact.LastNameOrSurname     | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |
| fulfillmentinfo.fulfillmentcontact.companyororganization | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in) | String             | No          |

| Field  | Operators   | Possible<br>Values | Sort<br>By? |
|--|---|--------------------|-------------|
| FulfillmentInfo.FulfillmentContact.Email                   | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in)        | String             | No          |
| FulfillmentInfo.FulfillmentContact.Address.CityOrTown      | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in)        | String             | No          |
| FulfillmentInfo.FulfillmentContact.Address.CountryCode     | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in)        | String             | No          |
| FulfillmentInfo.FulfillmentContact.Address.StateOrProvince | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains Filter (cont) In (in) | String             | No          |

| Field  | Operators  | Possible<br>Values | Sort<br>By? |
|--|--|--------------------|-------------|
| fulfillmentinfo.fulfillmentcontact.address.postalorzipcode | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in)               | String             | No          |
| Createby auditinfo.createby                                | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains (cont) In (in)               | String             | No          |
| createdate   | Equals (eq) Does Not Equal (ne) Greater than (gt) Less than (lt)                       | Datetime           | Yes         |
| Updateby auditinfo.updateby                                | Equals (eq) Does Not Equal (ne) Starts With (sw) Contains Filter (cont) In Filter (in) | String             | No          |

| Field           | Operators   | Possible<br>Values | Sort<br>By? |
|-----------------|---|--------------------|-------------|
| updatedate      | Equals (eq) Does Not Equal (ne) Greater than (gt) Greater Than or Equal To (ge) Less than (It) Less Than or Equal To (le) | Datetime           | No          |
| items.mfgpartno | Equals (eq) Does Not Equal (ne) Start With (sw)   | String             | No          |
| Items.UPC       | Equals (eq) Does Not Equal (ne) Start With (SW)   | String             | No          |
| Userld          | Equals (eq) Does Not Equal (ne)   | String             | No          |

| Field             | Operators   | Possible<br>Values | Sort<br>By? |
|-------------------|---|--------------------|-------------|
| total             | Equals (eq) Does Not Equal (ne) Greater than (gt) Greater Than or Equal To (ge) Less than (lt) Less Than or Equal To (le) | Any<br>decimal     | Yes         |
| Submitteddate     | Equals (eq) Does Not Equal (ne) Greater than (gt) Less than (lt)  | Datetime           | Yes         |
| CustomerAccountId | Equals (eq) Does Not Equal (ne) In Filter (in   | Integer            | No          |
| Frequency.Unit    | Equals (eq) Does Not Equal (ne)   | String             | No          |

| Field           | Operators   | Possible<br>Values | Sort<br>By? |
|-----------------|---|--------------------|-------------|
| Frequency.Value | Equals (eq) Does Not Equal (ne) Greater than (gt) Greater Than or Equal To (ge) Less than (lt) Less Than or Equal To (le) | Integer            | No          |
| NextOrderDate   | Equals (eq) Does Not Equal (ne) Greater than (gt) Greater Than or Equal To (ge) Less than (lt) Less Than or Equal To (le) | Datetime           | Yes         |
| Subtotal        | Equal (eq) Not Equal (ne) Greater Than (gt) Greater Than Or Equal To (ge) Less Than Or Equal (lt)                         | Any<br>decimal     | Yes         |

| Field                               | Operators   | Possible<br>Values   | Sort<br>By? |
|-------------------------------------|---|--|-------------|
| Attributes.Name                     | Equals (eq)  Does Not  Equal (ne)   | This matches the fully qualified name of the customer account attribute. | No          |
| Attributes.Id                       | Equals (eq) Does Not Equal (ne) Less Than (It) Less Than or Equal To (Ie) Greater Than (gt) Greater Than or Equal To (ge) | Any<br>integer   | No          |
| Attributes. Attribute Definition Id | Equals (eq) Does Not Equal (ne) Less Than (It) Less Than or Equal To (Ie) Greater Than (gt) Greater Than or Equal To (ge) | Any<br>integer   | No          |

| Field            | Operators                             | Possible<br>Values   | Sort<br>By? |
|------------------|---------------------------------------|--|-------------|
| Attributes.Value | Equals (eq)<br>Does Not<br>Equal (ne) | Depend on the data type of the attribute. Supported types are string, date/time, decimal, and Boolean. | No          |