

# 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 [Squiggly](#) 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 Name	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/?isLate=true&filter=fulfillmentLocationCode==Example_Location;shipmentStatus==READY
```

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

"@kibocommerce.com":

```
.../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 Name	Syntax	Example
Equals	eq	<code>/?filter=id eq 2</code>
Not Equals	ne	<code>/?filter=createBy ne Dave</code>
Greater Than	gt	<code>/?filter=discountTotal gt 50</code>

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

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 `^ / " ' , { } ( )`

### 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.

.../api/commerce/orders/?filter=discount.content.name+cont+test&sortBy=discount.content.name+asc,createdate+desc

## 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 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 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 (lt) Less Than or Equal To (le) 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 (lt) Less Than or Equal To (le) Greater Than (gt) Greater Than or Equal To (ge)	Any integer.	Yes

Field	Operators	Possible Values	Sort 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 By?
externalId	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
userId	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 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 *billingInfo.billingContact*, *fulfillmentInfo.fulfillmentContact*, and *shippingInfo.shippingContact*. 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
```

Field	Operators	Possible Values	Sort 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 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 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 By?
cancelledDate  Note: this only applies to cancelled orders.	Equal (eq) Not Equal (ne) Greater Than (gt) Less Than (lt)	Any string in date-time format (can exclude the time)	Yes
channelCode	Equal (eq) Not Equal (ne) Starts With (sw)	Any alphanumeric string	Yes
closedDate  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 By?
email	Contains (cont) Equal(eq) Not Equal (ne) Starts With (sw)	Any alphanumeric string	No
externalId	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) Not Equal (ne)	Any valid internal order identifier	Yes
ipAddress	Equal (eq) 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 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) 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

<b>Field</b>	<b>Operators</b>	<b>Possible Values</b>	<b>Sort By?</b>
type	Contains (cont) Equal (eq) Not Equal (ne) Starts With (sw)	Online, Offline	Yes
userId	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 (lt) 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 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

\*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-{tenantId}-s-{siteId}.{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?
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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 <a href="#">Get Products API</a> call, and allows you to search for products across multiple catalogs. Applying a filter such as <code>?filter=productInCatalogs.catalogid IN [1,2,3]</code> 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.
categoryId	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
mapIsProductDetailsOnly	Equals (eq)	<p>A Boolean value specified as true or false.</p> <p>This is specifically supported for the <a href="#">Get Products API</a> 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.</p>
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 (lt) Less Than or Equal To (le)	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) 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 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 By?
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.	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 Values	Sort 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 Values	Sort By?
id	Equals (eq) Does Not Equal (ne)	String	No
externalId	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 Values	Sort 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 separated statues	No
ipaddress	Equals (eq) Does Not Equal (ne)	String	No
currencycode	Equals (eq) Does Not Equal (ne)	Any valid ISO currency code	No
onetimeproduct	Does Not 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 Values	Sort 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 Values	Sort 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 Values	Sort 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 Values	Sort By?
cardnumber	Contains (cont) 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 Values	Sort 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 Values	Sort 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 Values	Sort By?
updatedate	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	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
UserId	Equals (eq) Does Not Equal (ne)	String	No

Field	Operators	Possible Values	Sort 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 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 Values	Sort 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 decimal	Yes

Field	Operators	Possible Values	Sort 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 (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

<b>Field</b>	<b>Operators</b>	<b>Possible Values</b>	<b>Sort By?</b>
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