

CLASSY Search Components

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Component Overview

The '**CLASSY Search Parameter Components**' section contains the the common search parameters for the CLASSY High Level Science Product (HLSP) data collection. This page overviews the types of search components and how to specify parameter constraints.

Parameter Constraint Syntax

Learn how to specify constraints on search parameters depending on the nature of the input. The following specifications apply for the core search parameters and [Additional Search Parameters](#) in the search form.



Hovering over each filter box shows tooltips on how to use search conditions.

CLASSY Search Parameter Components

Redshift

Redshift, e.g. 0.098393

z=

The '**Redshift**' component, a [Numeric field](#), allows querying on redshift from optical emission lines. Type a number, conditional operation, or a range.

Distance

Distance in Mpc, e.g. 20

D=

The '**Distance**' component, a [Numeric field](#), allows querying based on distance, in Mpc. Type a number, conditional operation, or a range.

Total Galaxy Stellar Mass

Total Galaxy Stellar Mass in M_{\odot} , e.g. 9.34

log_Mstar=

The '**Total Galaxy Stellar Mass**' component, a [Numeric field](#), allows querying based on total galaxy stellar mass, in M_{\odot} . Type a number, conditional operation, or a range.

Total Galaxy Star Formation

Total Galaxy Star Formation in M_{\odot}/yr^{-1} , e.g. -1.66

log_SFR=

The '**Total Galaxy Star Formation**' component, a [Numeric field](#), allows querying based on Total Galaxy Star Formation, in M_{\odot}/yr^{-1} . Type a number, conditional operation, or a range.

Total Galaxy Specific Star Formation Rate

Total Galaxy Specific Star Formation Rate yr^{-1} , e.g. -8.66

log_sSFR=

The '**Total Galaxy Specific Star Formation Rate**' component, a [Numeric field](#), allows querying based on total galaxy specific star formation rate (yr^{-1}), as SFR/M. Type a number, conditional operation, or a range.

Nebular Oxygen Abundance

Nebular Oxygen Abundance, e.g. 7.5, 0.5

Zneb=

Unit=

Z_{\odot}

The '**Nebular Oxygen Abundance**' component, a [Numeric field](#), allows querying based on nebular oxygen abundance, in Z or 12+Log (O/H). Type a number, conditional operation, or a range.



Use the 'Unit' dropdown to choose the unit to query against.

Nebular Electron Density

Nebular Electron Density in cm^{-3} , e.g. 143

Ne=

The '**Nebular Electron Density**' component, a [Numeric field](#), allows querying based on nebular electron density, in cm^{-3} . Type a number, conditional operation, or a range.

Ionization Field Strength

Ionization Field Strength i.e. [O III]/[O II], e.g. 3.72

O32=

Unit=

Log(O32)

The '**Ionization Field Strength**' component, a [Numeric field](#), allows querying based on ionization field strength, in Log(O32) or Log(U). Type a number, conditional operation, or a range.



Use the 'Unit' dropdown to choose the unit to query against.

For Further Reading...

- [Mission Search Guide Home](#)
- [Search Parameter Overview](#)