This table includes most of the commonly used summary functions.

|  |  |  |
| --- | --- | --- |
| **SQL** | **SAS** | **Returned Value** |
| AVG | MEAN | Mean (average) value |
| COUNT | FREQ, N | Number of nonmissing values |
| MAX | MAX | Largest value |
| MIN | MIN | Smallest nonmissing value |
| SUM | SUM | Sum of nonmissing values |
|  | NMISS | Number of missing values |
|  | STD | Standard deviation |
|  | VAR | Variance |

When more than one argument is used within an SQL aggregate function, the function is no longer considered to be an SQL aggregate or summary function. If there is a like-named Base SAS function, then PROC SQL executes the Base SAS function and the results that are returned are based on the values for the current row. If no like-named Base SAS function exists, then an error occurs. For example, if you use multiple arguments for the AVG function, an error occurs because there's no AVG function for Base SAS.

Both ANSI SQL and SAS functions can be used in PROC SQL.

* AVG is ANSI standard, MEAN is the SAS function, both return the mean (average) value. AVG only works with one argument.
* COUNT is the ANSI standard function, FREQ or N are the SAS functions, both return the number of nonmissing values.
* MAX is both the ANSI standard and SAS function, max returns the largest value.
* MIN is both the ANSI standard and SAS function, min returns the smallest nonmissing value.
* SUM is both the ANSI standard and SAS function, sum returns the sum of nonmissing values.
* NMISS is a SAS function and counts the number of missing values.
* STD is a SAS function and returns the standard deviation.
* VAR is a SAS function and returns the variance.

For additional information on functions, see the SAS Documentation.