## Exact numerics

| **Type** | **From** | **To** |
| --- | --- | --- |
| bigint | -9,223,372,036,854,775,808 | 9,223,372,036,854,775,807 |
| int | -2,147,483,648 | 2,147,483,647 |
| smallint | -32,768 | 32,767 |
| tinyint | 0 | 255 |
| bit | 0 | 1 |
| decimal | -10^38 +1 | 10^38 –1 |
| numeric | -10^38 +1 | 10^38 –1 |
| money | -922,337,203,685,477.5808 | +922,337,203,685,477.5807 |
| smallmoney | -214,748.3648 | +214,748.3647 |

numeric and decimal are Fixed precision and scale data types and are functionally equivalent.

## Approximate numerics

| **Type** | **From** | **To** |
| --- | --- | --- |
| float | -1.79E + 308 | 1.79E + 308 |
| real | -3.40E + 38 | 3.40E + 38 |

## datetime and smalldatetime

| **Type** | **From** | **To** |
| --- | --- | --- |
| datetime (3.33 milliseconds accuracy) | Jan 1, 1753 | Dec 31, 9999 |
| smalldatetime (1 minute accuracy) | Jan 1, 1900 | Jun 6, 2079 |

## Character Strings

| **Type** | **Description** |
| --- | --- |
| char | Fixed-length non-Unicode character data with a maximum length of 8,000 characters. |
| varchar | Variable-length non-Unicode data with a maximum of 8,000 characters. |
| varchar(max) | Variable-length non-Unicode data with a maximum length of 231 characters (**SQL Server 2005 only**). |
| text | Variable-length non-Unicode data with a maximum length of 2,147,483,647 characters. |

## Unicode Character Strings

| **Type** | **Description** |
| --- | --- |
| nchar | Fixed-length Unicode data with a maximum length of 4,000 characters. |
| nvarchar | Variable-length Unicode data with a maximum length of 4,000 characters. |
| nvarchar(max) | Variable-length Unicode data with a maximum length of 230 characters (**SQL Server 2005 only**). |
| ntext | Variable-length Unicode data with a maximum length of 1,073,741,823 characters. |

## Binary Strings

| **Type** | **Description** |
| --- | --- |
| binary | Fixed-length binary data with a maximum length of 8,000 bytes. |
| varbinary | Variable-length binary data with a maximum length of 8,000 bytes. |
| varbinary(max) | Variable-length binary data with a maximum length of 231 bytes (**SQL Server 2005 only**). |
| image | Variable-length binary data with a maximum length of 2,147,483,647 bytes. |

## Other Data Types

* **sql\_variant**: Stores values of various SQL Server-supported data types, except text, ntext, and timestamp.
* **timestamp**: Stores a database-wide unique number that gets updated every time a row gets updated.
* **uniqueidentifier**: Stores a globally unique identifier (GUID).
* **xml**: Stores XML data. You can store xml instances in a column or a variable (**SQL Server 2005 only**).
* **cursor**: A reference to a cursor.
* **table**: Stores a result set for later processing.