

**PostgreSQL data types:**

The datatypes in postgresql have a particular name, storage size and a description. The documentation provides the following datatypes (**note:** I only put the description of the ones that I found necessary, the same for the ranges):

*Numeric types*

Name	Storage Size	Description	Range
<b>smallint</b>	2 bytes		-32768 to +32767
<b>integer</b>	4 bytes		
<b>biging</b>	8 bytes		
<b>decimal</b>	Variable	A number with	up to 131072 digits before the decimal point; up to 16383 digits after the decimal point.
<b>numeric</b>	Variable	The user gives a specific precision (number of digits) and scale (number of digits after the decimal point) for numbers. It's really useful for mathematical operations.	The same as decimal.
<b>real</b>	4 bytes		6 decimal digits precision
<b>double precision</b>	8 bytes		15 decimal digits precision
<b>smallserial</b>	2 bytes	Small autoincrementing integer	1 to 32767
<b>serial</b>	4 bytes		
<b>bigserial</b>	8 bytes		

**Note 1:** Decimal and numeric are basically the same.

**Note 2:** The autoincrementing integer it's used for creating unique identifier columns.

*Monetary types*

There is only one monetary type: **money**. The storage size is 8 bytes.

*Character types*

There are three character types:

Name	Size	Description
<b>character varying (n), varchar (n)</b>	Variable	For variable-length strings with a max limit of value n.
<b>Character(n), char(n), bpchar (n)</b>	Variable	For fixed-length strings with a limit of n. This type reserves blank spaces in the memory for the limit specified.
<b>text</b>	Variable	Unlimited length string.

*Binary data types*

There is one general byte data type called **bytea**. The storage size is 1 or 4 bytes plus the actual binary string.

*Date/time types*

The commonly used date types are:

Name	Storage Size	Description	Low Value	High Value
Timestamp[(p)]	8 bytes	Date and time	4713 BC	294276 AD
Timestamp[(p)] with time zone	8 bytes	Specifies the time zone		
date	4 bytes	Date (with no time)		
time [(p)]	8 bytes	Gives the time without the date	00:00:00	24:00:00
time [(p)] with time zone	12 bytes	The time of the day with the time zone	00:00:00+1559	24:00:00-1559
Interval [fields] [(p)]	16 bytes	Gives a time interval	-178000000	178000000

**Note 3:** The p value specifies the precision.

*Network address type*

The four commonly used types for networking are:

Name	Storage Size	Description
<b>cidr</b>	7 or 19 bytes	IPv4 and IPv6 only networks
<b>inet</b>	7 or 19 bytes	IPv4 and IPv6 hosts and networks
<b>macaddr</b>	6 bytes	MAC addresses
<b>macaddr8</b>	8 bytes	The same as macaddr but with EUI-64 format

**References**

[1] “PostgreSQL Documentation”. PostgreSQL.  
<https://www.postgresql.org/docs/current/datatype-net-types.html> (accessed Sep. 18 2023)