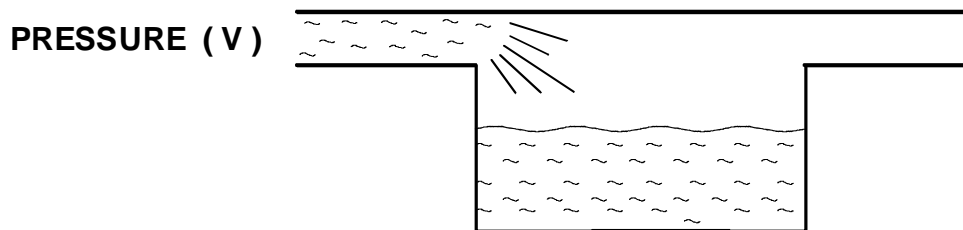


CAPACITORS - How they work

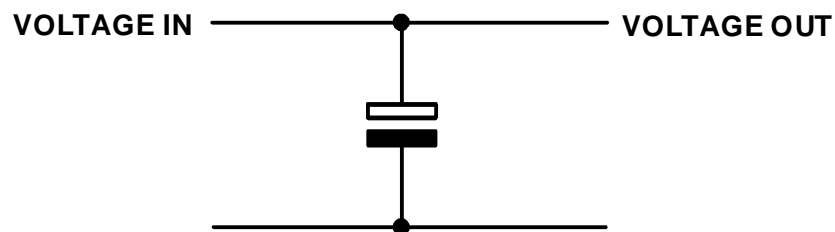
Capacitors store small amounts of electricity, they are like a very inefficient rechargeable battery. An analogy of a capacitor using water, would be similar to a tank filling up with water when it is charging, and emptying out when discharging.

WATER SYSTEM



Equivalent circuit diagram:

CIRCUIT DIAGRAM



A capacitor is made from two metal plates separated by an insulator called a **dielectric**. This can be made from various materials, e.g. ceramic, polyester. The charge that is stored, depends on the size of the plates.

Capacitors are measured in **Farads**, although this unit is very large.

Smaller values are expressed using sub-multiples,

e.g. 0.000,01 Farads = 10uF

When a capacitor needs to have large plates, they are usually rolled up, to save space.



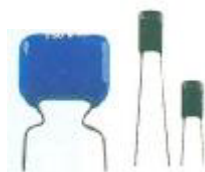
Other capacitor types:



Ceramic



Large electrolytic



Polyester



Mica



Tantalum