

Ingress Protection (IP) Ratings

The IP standard rating system defines the degree of protection provided. The standard IEC 60529 has specified the degree of protection and divided it into several levels, defined by the IP number, which has the letters IP followed by two digits. The first digit defines the protection against in solid objects, the second digit defines the protection against the ingress of water.

IP **6** **7**

Protection Against Solid Objects	
1 st Digit	Definition
0	No protection against contact and ingress of objects.
1	Protected against any large surface of the body, such as the back of a hand. Protected against solid objects greater than 50mm in size.
2	Protected against access to hazardous parts by a finger or similar object. Protected against solid objects greater than 12.5mm in size.
3	Protected against access to hazardous parts with a tool or thick wire. Protected against solid objects greater than 2.5mm in size.
4	Protected against access to hazardous parts with a wire, screw, etc. Protected against solid objects greater than 1mm in size.
5	Protected against access to hazardous parts. Dust protected.
6	Protected against access to hazardous parts. Dust-tight.

Protection Against Water	
2 nd Digit	Definition
0	No protection.
1	Protected against water drops.
2	Protected against water drops at a 15 degree angle.
3	Protected against water spray at 60 degree angle.
4	Protected against water splashing from any angle.
5	Protected against water jets from any angle.
6	Protected against powerful water jets and heavy seas.
7	Protected against the effects of temporary submersion in water. Test requires 30 minutes at 1 meter depth.
8	Protected against the effects of temporary submersion. Customer specification applies and specific testing may be required.
9K	Protects against high pressure associated with steam cleaning.