

IP Ratings

IP stands for Ingress Protection.

This system uses a 2 digit code to specify the degree of particle and water resistance of a piece of electronic equipment or an enclosure for an electronic component.

The first digit represents the degree of protection against solid foreign objects from entering the enclosure.

The second digit represents the degree of protection against water penetrating and reaching the interior electrical components.

The higher the two digits, the better the protection. Therefore an IP Rating of 65 is far superior to that of only 41.

Value	First Digit	Second Digit
0	No protection	No protection
1	Protected against solid objects over 50mm e.g. fingers, large tools	Protected against vertically falling drops of water
2	Protected against solid objects over 12mm	Protected against direct sprays of water up to 15° from vertical
3	Protected against solid objects over 2.5mm	Protected against direct sprays of water up to 60° from vertical
4	Protected against solid objects over 1.0mm	Protected against water sprayed from any direction. Limited ingress permitted.
5	Limited protection against dust ingress (no harmful deposit)	Protected against low pressure water jets from any direction. Limited ingress permitted.
6	Totally protected against dust	Protected against high pressure water jets from any direction. Limited ingress permitted.
7		Protected against immersion between 15cm and 1M
8		Protected against long periods of immersion under pressure
9		