



# IP Rating

## How does it work?

The first digit represents protection against penetration by solid objects accessing hazardous parts, the second describing the enclosures, protection against the ingress of water. An X in place of either digit means that either the enclosure has not been tested or that the test is not applicable.

### First Digit

1. No Protection
2. Protected against solid objects over 50mm, e.g. accidental touch by hands
3. Protected against solid objects over 12mm, e.g. fingers
4. Protected against solid objects over 2.5mm, e.g. tools and wires
5. Protected against solid objects over 1mm, e.g. wires, nails etc.
6. Protected against dust limited ingress, not harmful deposits
7. Totally protected against dust

### Second Digit

1. No Protection
2. Protected against vertically falling drops of water e.g. condensation
3. Protected against direct sprays of water up to 15 degrees from the vertical
4. Protected against direct sprays of water up to 60 degrees from the vertical
5. Protected against water splashed from all directions, limited ingress permitted
6. Protected against low pressure jets of water from all directions, limited ingress permitted
7. Protected against strong jets of water e.g. on ships deck limited ingress permitted

In the event of additional holes being drilled, pierced or knockouts removed, suitable measures should be taken to restore the product to its original rating IEC 529, BS EN 60529 does not apply to protection against the risk of explosion or conditions such as humidity, corrosive gases, fungi or vermin. In certain cases equipment designed to be mounted in an enclosure will contribute towards the stated IP rating, (e.g. push buttons mounted in an enclosure). Different parts of enclosures can have different degrees of protection and still conform to the standard.