

IP RATINGS

The IP system of classification is designed to indicate the degree of protection against ingress of dust and liquids into enclosures in accordance with BS 5490: 1977, IEC 529: 1976. It should be noted that this system of quantifying degrees of protection does not relate to protection against rust and corrosion.

The level of protection offered is normally indicated by the letters 'IP' followed by a two digit number, e.g. IP65.

The following brief resume of IP numbers and their meaning, will we hope be helpful in assessing degrees of protection when selecting enclosures.

Whilst not specified by the BSI, a third numeral is also sometimes shown, this figure is used in corresponding international standards to indicate degree of resistance to impact.

For full details of IP numbers, please refer to the official BS specification.

FIRST NUMBER (Protection against solid objects)	SECOND NUMBER (Protection against liquids)
IP Tests	IP Tests
0 no protection	0 no protection
1 protected against; solid objects up to 50mm e.g. accidental touch by hands	1 protected against vertically falling drops of water e.g. condensation
2 protected against solid objects up to 12mm e.g. accidental touch by fingers	2 protected against direct sprays of water up to 15 degrees from vertical
3 protected against solid objects over 2.5mm e.g. tools and wires	3 protected against direct sprays of water up to 60 degrees from vertical
4 protected against solid objects over 1.0mm e.g. tools & wires + small wires	4 protected against water sprayed from all directions, limited ingress permitted
5 protected against dust limited ingress, no harmful deposit	5 protected against low pressure jets of water sprayed from all directions, limited ingress permitted
6 totally protected against dust	6 protected against strong jets of water e.g. for use on ship decks, limited ingress permitted
	7 protected against the effects of immersion between 15 cm and 1 metre
	8 protected against long periods of immersion under pressure