

# IP RATINGS

The IP rating system provides a means of classifying the degrees of protection from dust and water afforded by electrical equipment and enclosures. The system is recognised worldwide and is set out in BS EN 60529:1992+A2:2013 (IEC 60529:1989+AMD1:1999+AMD2:2013 CSV) Degrees of Protection provided by enclosures (IP Code).

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 over 50mm e.g. accidental touch by hands	1	Protected against vertically falling drops of water
2	Protected against solid objects over 12mm e.g. fingers	2	Protected against direct sprays of water up to 15° from the vertical
3	Protected against solid objects over 2.5mm (tools & wires)	3	Protected against sprays up to 60° from the vertical
4	Protected against solid objects over 1mm (tools, wires and 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 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 temporary immersion between 15cm and 1m. Duration of test 30 minutes.
		8	Protected against long periods of immersion under pressure
		9	Protected against high pressure and temperature water jets

*Note: Degrees of Protection IPX7 and IPX8 do not necessarily confirm that the lower degrees of protection against water are met*