

An IP (Ingress Protection) rating is assigned to any product where its ability to prevent objects of varying sizes and compositions from breaking its barriers is relevant. Any such rating normally consists of the letters 'IP' followed by two numbers, the first of which applies to solid objects and the second to water and fluids. The two tables to the right outline what each number means and allows you to gauge how enclosures with a certain rating would perform under a specific set of conditions.

LEVEL	OBJECT SIZE	EFFECTIVE AGAINST
0	Not Protected	Not Protected
1	>50mm	Any large surface of the body, such as the back of the hand, but no protection against deliberate contact with body part.
2	>12.5mm	Fingers or similar objects.
3	>2.5mm	Tools, thick wires, etc.
4	>1mm	Most wires, screws etc.
5	Dust Protected	Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the equipment. Complete protection against contact.
6	Dust Tight	No ingress of dust. Contact prevention.

LEVEL	OBJECT SIZE	EFFECTIVE AGAINST
0	Not Protected	Not Protected
1	Dripping water	Dripping water (vertically dripping water) shall have no harmful effect.
2	Dripping water when tilted up to 15°	Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle of up to 15° from normal position.
3	Spraying water	Water falling as a spray at any angle up to 60° from the vertical shall have no effect.
4	Splashing water	Water splashing against the enclosure from any direction shall have no harmful effect.
5	Water jets	Water projected by a nozzle (6.3mm) against the enclosure from any direction shall have no harmful effect.
6	Powerful water jets	Water projected by powerful jets from a nozzle (12.5mm) against the enclosure from any direction shall have no harmful effect.
7	Immersion up to 1m depth	Ingress of water in harmful quantities shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1m of depth).
8	Immersion beyond 1m depth	The enclosure is suitable for continuous immersion in water under conditions specified by the manufacturer.