

Degrees of Protection - First Digit

The first digit of the IP code indicates the degree that equipment is protected against solid foreign bodies intruding into an enclosure.

Degrees of Protection - Second Digit

The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)

IP Rating Chart

OBJECTS

Level	Object size protected against	Effective against
0	_	No protection against contact and ingress of objects
1	>50 mm	Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part
2	>12.5 mm	Fingers or similar objects
3	>2.5 mm	Tools, thick wires, etc.
4	>1 mm	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 satisfactory operation of the equipment; complete protection against contact
6	Dust tight	No ingress of dust; complete protection against contact

MOISTURE

Level	Protected against	Details
0	Not protected	-
1	Dripping water	Dripping water (vertically falling drops) shall have no harmful effect.
2	Dripping water when tilted	Vertically dripping water shall have no harmful effect when the
	up to 15°	enclosure is tilted at an angle up to 15° from its normal position.
3		Water falling as a spray at any angle up to 60° from
	Spraying water	the vertical shall have no harmful effect.
4		Water splashing against the enclosure from any
	Splashing water	direction shall have no harmful effect.
5		Water projected by a nozzle against enclosure from any
	Water jets	direction shall have no harmful effects.
6		Water projected in powerful jets against the enclosure
	Powerful water jets	from any direction shall have no harmful effects.
7		Ingress of water in harmful quantity shall not be possible when the
	Immersion up to	enclosure is immersed in water under defined conditions of
	1 m	pressure and time (up to 1 m of submersion).
8		The equipment is suitable for continuous immersion in water under conditions
		specified by the manufacturer. Normally, this will mean that the equipment is
	Immersion beyond	hermetically sealed. However, with certain equipment, it can mean that water can
	1 m	enter but only in such a manner that produces no harmful effects.