

IP Rating Chart

Technical Information

The IP Code (or Ingress Protection Rating, sometimes also interpreted as International Protection Rating) consists of the letters IP followed by two digits.

First Numeral

Protection against the ingress of solid particles

IP

Second Numeral

Protection against the harmful ingress of water

IP	Requirements	Example	Protection of Person	IP	Requirements	Example	Protection From Water
0	No protection		No protection	0	No protection		No protection
1	Full penetration of 50mm diameter sphere not allowed. Contact with hazardous parts not permitted.		Back of hand	1	Protected against vertically falling drops of water. Limited ingress permitted.		Vertically dripping
2	Full penetration of 12.5mm diameter sphere not allowed. The jointed test finger shall have adequate clearance from hazardous parts.		Finger	2	Protected against vertically falling drops of water with the enclosure tilted 15° from the vertical. Limited ingress permitted.		Dripping up to 15° from the vertical
3	The access probe of 2.5mm diameter shall not penetrate.		Tool	3	Protected against sprays to 60° from the vertical. Limited ingress permitted.		Limited spraying
4	The access probe of 1.0mm diameter shall not penetrate.		Wire	4	Protected against water splashed from all directions. Limited ingress permitted.		Splashing from all directions
5	Limited ingress of dust permitted (no harmful deposit).		Wire	5	Protected against jets of water. Limited ingress permitted.		Hosing jets from all directions
6	Totally protected against the ingress of dust.		Wire	6	Protected against strong jets of water. Limited ingress permitted.		Strong hosing jets from all directions
				7	Protected against the effects of immersion between 15cm and 1m.		Temporary immersion
				8	Protected against long periods of immersion under pressure		Continuous immersion

Sometimes there may be a letter at the end of the code:

IP D

- D** Wire
- F** Oil resistant
- H** High voltage device
- M** Device moving during water test
- S** Device standing still during water test
- W** Weather Conditions