

IP Ratings and Their Definitions

IP Rating, or International Protection Code, is a standard rating system that indicates the type of environments in which a specific fixture is capable of operating.

The IP Rating takes the form of IP* *, where each * is designated by a number corresponding to a particular rating. The first number refers to protection against solids ranging from tools down to dust. The second number refers to protection from the ingress of liquids (water).

IP

FIRST NUMERAL

Protection of persons against access to hazardous parts (live or moving) and protection of equipment against the ingress of solid foreign objects.

X	No specified protection (not tested)
0	No protection
1	Protection of equipment against objects larger than 50 mm ³ and against accidental access to hazardous parts by the back of the hand.
2	Protection of equipment against objects larger than 12.5 mm ³ and against access of fingers to hazardous parts.
3	Protection against the access of tools, wires or other solid objects larger than 2.5 mm ³ .
4	Protection against the access of solid foreign bodies larger than 1 mm ³ .
5	Protection against the entry of dust in sufficient quantity to interfere with the operation of the fixture.
6	Completely protected from the entry of dust.

SECOND NUMERAL

Indicates the degree of protection against the harmful ingress of liquids (water).

X	No specified protection (not tested)
0	No protection
1	Protection against drops of water falling vertically.
2	Protection against drops of water falling at up to 15° from vertical.
3	Protection against drops of water sprayed at angles of up to 60° from vertical.
4	Protection against spraying or splashing water from all practicable angles.
5	Protected from low pressure jets of water from all practicable angles.
6	Protected against strong jets of water from all practicable angles, equivalent to the force of heavy seas.
7	Protected against temporary immersion no greater than 1 m.
8	Protected against continuous immersion at depth equal to or greater than numeral 7