

Ingress Protection and Bathroom Zones

What are Ingress Protection (IP) Ratings?

Ingress Protection (IP) ratings relate to the EN60529 Standard, the international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (such as dust, fingers, tools) and moisture. The classification uses the letters IP followed by two, or occasionally three further digits, and this indicates the degree of protection provided. The higher the number, the greater the protection.

The first digit relates to the degree that persons are protected against contact with moving parts that could prove hazardous, and also the degree that equipment is protected against solid foreign bodies intruding into the unit.

The second digit is most relevant to hand dryers, and indicates the degree of protection against the harmful entry of various forms of moisture.

First digit	Degree of protection
0	No special protection
1	Protection from a large part of the body such as the hand; from solid objects greater than 50mm in diameter
2	Protection against fingers or other object not greater than 80mm in length and 12mm in diameter
3	Protection from entry by tools, wires, etc, with a diameter of thickness greater than 1mm
4	Protection from entry by solid objects with a diameter or thickness greater than 1mm
5	Protection from the amount of dust that would interfere with the operation of the equipment
6	Dust tight

Second digit	Degree of protection
0	No special protection
1	Protection from dripping water
2	Protection from vertically dripping water
3	Protection from sprayed water
4	Protection from splashed water
5	Protection from water projected from a nozzle
6	Protection against heavy seas, or powerful jets of water
7	Protection against immersion
8	Protection against complete, continuous submersion in water

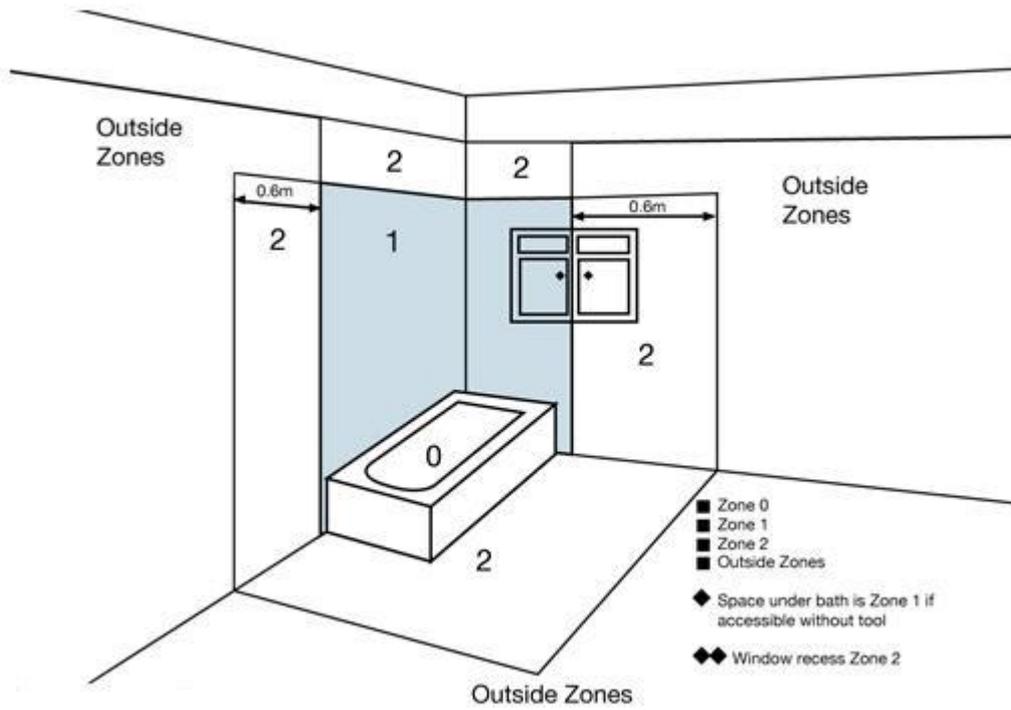
So for example, most hand dryers have an IP rating of IP24. After the IP, the first digit, 2, indicates that the dryer has 'protection against fingers or other objects not greater than 80mm in length and 12mm in diameter'. The second digit, 4, indicates that the hand dryer is protected against splashed water.

Bathroom Zones

Additionally, the 17th Edition of the IEE Wiring Regulations now considers a room containing a bath or shower to be a special location due to the increased risk of electric shock.

The bathroom has been split into Zones 0, 1 and 2. The extent of the Zones are detailed in the diagrams below.

Zone Diagram for Bath Areas



Zone Diagram for Shower Areas

