

# Definition of IP code

## Definition of Ingress Protection (IP)code

It is defined as a standard for the effectiveness of electrical and electronic instruments according to IEC 60529 standards for exposure to other objects (hands, tools, dusts, etc.) or to prevent moisture from penetrating. This separation system is referred to as "IP" in the acronym for Ingress Protection.

(Example)

IP 65	IP	• IP letter code
	6	• 1st Digit : Dust-tight
	5	• 2nd Digit : Protection from water projected from a nozzle

### First digit

The first digits indicates the degree of resistance when a mobile component is connected or when the accessory is exposed to a combination of other solid state mains instrument.

### Second digit

The second digits indicates the extent to which various forms of moisture (eg dropping of water, spray, submergence, etc.) into the instruments are prevented from entering the obstacle.

Code	First digit	Code	Second digit
1	Resistance to large objects such as hands and solids with a diameter of 50mm or more	1	The waterproofing meets water dripping in a vertical direction
2	Resistance to relative water of 80mm in length, diameter, 12mm or less	2	Satisfactory waterproofing in the state of dripping water at a 15 degree tilt angle
3	Diameter, thickness of 2.5mm or more to prevent the entry of tools and wires	3	Satisfied with water spray
4	Diameter, level to prevent the solid material from entry of 1.0mm or thicker	4	Satisfactory water proofing in water pouring conditions
5	A level that prevents significant dust from entering the instrument during operation	5	Satisfactory waterproofing in water spraying conditions
6	Prevent fine dust entry	6	Satisfactory waterproofing in withstand the waves and the flushing water
7		7	Satisfactory waterproofing in temporary submerged condition
8		8	Satisfactory waterproofing in completely submerged condition