



A three-digit number established by the International Electrotechnical Commission, is used to provide an Ingress Protection (IP) Rating to a piece of electronic equipment or to an enclosure for electronic equipment.

The IP Rating indicates the level, or amount of protection that a piece of equipment is afforded.

The three digits represent three different forms of environmental influence:

- IP_xx The first digit represents protection against ingress of solid objects
- IPx_x The second digit represents protection against ingress of liquids
- IPxx_ The third digit represents protection against mechanical impact damage*

(*The third digit is often omitted, resulting in a 2-digit IP Rating covering ingress against solid objects and liquids only).

The larger the value of each digit, the greater the protection from that influence.

Ingress Protection (IP) Guide - CODE BS EN 60529 (IEC 60529)

Rating	First Digit: Protection Against Solid Objects	Second Digit: Protection Against water	Third Digit: Protection Against Impact
0	No special protection	No special protection	No special protection
1	Objects > 50 mm diameter (e.g. part of a hand)	Vertically dripping water	Protected against 0.225 joule impact (150g @ 15cm).
2	Objects > 12.5 mm diameter (e.g. finger)	Vertically dripping water, when enclosure tilted up to 15° from vertical	Protected against 0.375 joule impact (250g @ 15cm).
3	Objects > 2.5 mm diameter (e.g. tool)	Sprayed water up to 60°, from vertical	Protected against 0.5 joule impact (250g @ 20cm).
4	Objects > 1.00 mm diameter (e.g. wire)	Sprayed water from all directions	
5	Dust protected	Water jets from all directions	Protected against 2.0 joule impact (500g @ 40cm).
6	Dust tight	Powerful water jets from all directions	
7	N/A	Appropriately withstands submersion for 30 minutes to a depth <1m	Protected against 6.0 joule impact (1.5Kg @ 40cm).
8	N/A	Withstands sustained submersion to a depth >1m	
9	N/A	N/A	Protected against 20 joule impact (5Kg @ 40cm).

Leeds

Tel: 0113 243 0203

Sheffield

Tel: 0114 243 1841

Gateshead

Tel: 0191 460 2233

Manchester

Tel: 0161 876 4337

Glasgow

Tel: 0141 892 0166

Walsall

Tel: 01922 724604

e-mail: sales@scatts.co.uk

web: www.scatts.co.uk