

Ingress Protection (IP) Ratings

The protection offered by equipment housings and connectors is described using the IP standard rating system. The system classifies equipment using a standard convention which has the letters IP followed by two digits. The first digit defines the protection against the ingress of dust particles, the second digit defines the protection against the ingress of water. The table below gives general descriptions of IP ratings and is intended as a guide only. For detailed information consult Australian Standard AS60529. The system is also defined in International Standard IEC 60529.



1st Digit	Protection Against Solid Objects
0	No Protection
1	Protected against solid objects over 50mm eg. Hands
2	Protected against solid objects over 12mm eg. Fingers
3	Protected against solid objects over 2.5mm eg. Tools
4	Protected against solid objects over 1mm eg. Wires
5	Protected against dust - Limited penetration permitted
6	Protected against dust - Sealed

2nd Digit	Protection Against Liquids
0	No Protection
1	Protected against vertically falling drops of water
2	Protected against water drops up to 15° from vertical
3	Protected against water spray up to 60° from vertical
4	Protected against water spray from all directions
5	Protected against low pressure water jets from all directions
6	Protected against strong water jets from all directions
7	Protected against temporary immersion - 30 minutes at 1m
8	Protected against continuous immersion - To specified depth over 1m
9K	Protected against high pressures associated with steam cleaning