## **IP (Ingress Protection) Explained**

## What is an IP rating?

IP (or "Ingress Protection") ratings are defined in international standard EN 60529 (British BS EN 60529:1992, European IEC 60509:1989). They are used to define levels of sealing effectiveness of electrical enclosures against intrusion from foreign bodies (tools, dirt etc.) and moisture.

## What do the numbers in an IP Rating mean?

The numbers that follow IP each have a specific meaning. The first indicates the degree of protection (of people) from moving parts, as well as the protection of enclosed equipment from foreign bodies. The second defines the protection level that the enclosure enjoys from various forms of moisture (drips, sprays, submersion etc.). The table below should help make sense of it:

IP Rating Codes			
Protection from Solid Objects		Protection from Moisture	
1st #	Description	2nd #	Description
0	Not Protected	0	Not Protected
1	Protection against solid objects over 50mm e.g. hands	1	Protection against vertically falling water drops
2	Protection against solid objects over 12mm e.g. fingers	2	Protection against direct water spray up to 15°
3	Protection against solid objects over 2.5mm e.g. tools	3	Protection against direct water spray up to 60°
4	Protection against solid objects over 1mm e.g. wires	4	Protection against water spray from all directions
5	Protection against dust	5	Protection against low water pressure in all directions
6	Total protection against dust	6	Total protection against strong water jets.
		7	Total protection against immersions between 15cm - 1m
		8	Protection against immersion periods under pressure

If you have questions about these ratings, call us at 800-888-8101.