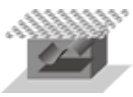
IP PROTECTION CLASSIFICATION

IP protection is a system which indicates the degree of protection against the ingress of dust and liquids within enclosure. IP protection is an international standard which conforms with BS 5490 : 1977 and IEC 529 : 1976. It should be noted that water-proof, splash-proof, IP55 or any other description of protection against the ingress of dust and liquids does not mean corrosion resistant.

Below is a graphic chart showing how the IP ratings are indicated. The first column shows enclosure protection against solid objects, the second, protection against liquids.

NOTE: Steel boxes are not suitable for use in wet or corrosive environments. Where they are used then the best possible finish should be specified and followed up with a regular maintenance programme.

IP FIRST NUMBER Protection against solid objects		
No.		TEST
0		No Protection
1		Protected against solid objects up to 50 mm e.g. accidental touch by hands
2		Protected against solid objects up to 12 mm (e.g. fingers)
3		Protected against solid objects over 2.5 mm (tools + wires)
4		Protected against solid objects over 1 mm (tools wires + small wires)
5		Protected against dust – limited ingress (no harmful deposit)
6		Totally protected against dust

IP SECOND NUMBER Protection against liquids		
No.		TEST
0		No Protection
1		Protected against vertically falling drops of water (e.g. condensation)
2		Protected against direct sprays of water up to 15˚ from the vertical
3		Protected against sprays to 60˚ from the vertical
4		Protected against water sprayed from all directions, limited ingress permitted
5		Protected against low pressure jets of water from all directions – limited ingress permitted
6		Protected against strong jets of water e.g. for use on shipdecks – limited ingress permitted
7		Protected agains t the affects of immersion between 15cm and 1m
8		Protected against long periods of immersion under pressure