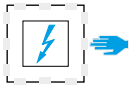
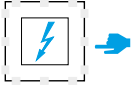
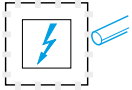
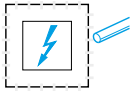
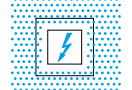



Ingress Protection Chart

The Ingress Protection (IP) for all low voltage enclosures up to 1000 V a.c. and 1500 V d.c. is defined in identical fashion by the standards EN 60529 - IEC 529 it comprises the letters IP followed by two character numerals and or additional/supplementary letters.

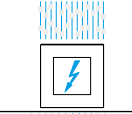
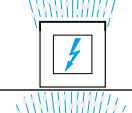
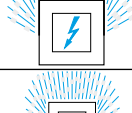
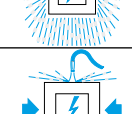
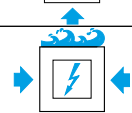
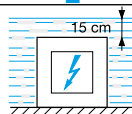
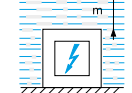
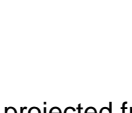
The first character numeral indicates the degree of protection provided by the enclosure against access to hazardous parts by preventing or limiting the ingress of a part of the human body or an object held by a person and ingress of solid foreign objects.

The first character numeral:
Protection against foreign objects

IP	Description	
0		Non-protected
1		Protected against solid objects \geq than 50mm
2		Protected against solid objects \geq than 12.5mm
3		Protected against solid objects \geq than 2.5mm
4		Protected against solid objects \geq than 1.0mm
5		Dust-protected
6		Dust-tight

The second character numeral indicates the degree of protection provided by the enclosure with respect to harmful effects on the equipment due to the ingress of water. An X signifies that the tests are not applicable to the product.

The second character numeral:
Protection against ingress of water with harmful effects

IP	Description	
0		Non-protected
1		Protected against vertically falling water drops
2		Protected against vertically falling water drops when enclosure titled up to 15°
3		Protected against spraying water
4		Protected against splashing water
5		Protected against water jets
6		Protected against powerful water jets
7		Protected against the effect of temporary immersion in water
8		Protected against continuous immersion in water

For Example:

IP65 Enclosure - IP rated as "dust tight" and protected against water projected from a nozzle.

IP66 Enclosure - IP rated as "dust tight" and protected against heavy seas or powerful jets of water.

IP 67 Enclosures - IP rated as "dust tight" and protected against immersion. for 30 minutes at depths 150mm - 1000mm

IP 68 Enclosures - IP rated as "dust tight" and protected against complete, continuous submersion in water.