

## INGRESS PROTECTION (IP)

The *IP Code* indicates the *degree of protection* provided by enclosures for electrical equipment (i.e. IP65= No dust entry and protected against low pressure jet of water).

### FIRST NUMERAL

The *first numeral* indicates protection of persons against access to dangerous parts and protection of internal equipment against the ingress of solid foreign objects.

- X** Protection unspecified (untested)
- 0** No special protection provided
- 1** Protection of hand against accidental access to dangerous parts, and protection of equipment against objects larger than 50mm
- 2** Protection of fingers against access to dangerous parts, and protection of equipment against objects larger than 12mm
- 3** Protection against objects larger than 2.5mm (e.g. tools, wires)
- 4** Protection against objects larger than 1mm (e.g. line tools, wires)
- 5** Protection against entry of dust in sufficient quantity to interfere with satisfactory operation of equipment
- 6** Complete protection against entry of dust

### SECOND NUMERAL

The *second numeral* indicates protection of internal equipment against harmful ingress of water.

- X** Protection unspecified (untested)
- 0** No special protection provided
- 1** Protection against drops of water falling vertically
- 2** Protection against drops of water falling vertically when the object is tilted by up to 15 degrees from its normal position (in any direction)
- 3** Protection against spraying water at up to 60 degrees from the vertical
- 4** Protection against splashing and spraying water from all practicable directions
- 5** Protection against a low pressure jet of water from all practicable directions
- 6** Protection against heavy seas or a strong jet of water from all practicable directions
- 6D** Protection against driving rain at angles down to horizontal
- 7** Protection against immersion
- 8** Protection against submersion (tests subject to agreement, but no less severe than numeral 7)