IP ratings

The IP rating (International Protection, IEC 60529) is a code which specifies what external influences the equipment is designed for. The IP rating is made up 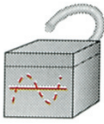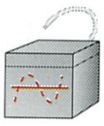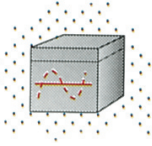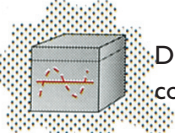of two digits and can contain an additional letter if the actual personal protection against direct contact with live parts is better than that indicated by the first digit.
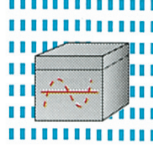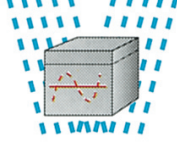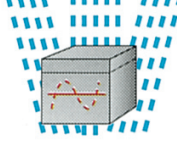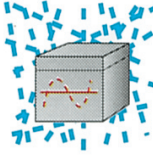
First digit:

The first digit of the IP code indicates the equipment's protection against penetration by solid objects and protection of personnel against direct contact with live parts.

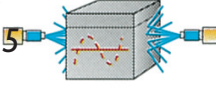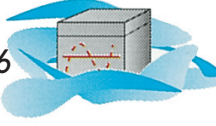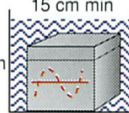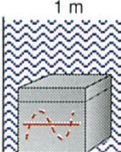| IP	Key	
0		Unprotected
1		Protected against penetration by solid objects with a diameter of 50mm or more. Protected against direct contact with the back of the hand (involuntary contact).
2		Protected against penetration by solid objects with a diameter of 12.5mm or more. Protected against direct contact with the fingers.
3		Protected against penetration by solid objects with a diameter of 2.5mm or more. Protected against direct contact with a Ø 2.5mm tool.
4		Protected against penetration by solid objects with a diameter of more than 1mm. Protected against direct contact with a Ø 1mm wire.
5		Protected against dust (no harmful objects). Protected against direct contact with a Ø 1mm wire.
6		Dustproof. Protected against direct contact with a Ø 1mm wire.

Second digit:

The second digit of the IP code indicates the equipment's protection against penetration by water resulting in damage.

IP	Key	
0		Unprotected
1		Protected against dripping water falling vertically (condensation).
2		Protected against water drops falling up to 15°C from the vertical.
3		Protected against rain falling up to 60°C from the vertical.
4		Protected against splashing water from all directions.
5		Protected against jets of water from all directions.
6		Protected against powerful jets of water and waves.
7		Protected against damage in the case of temporary immersion in water.
8		Protected against damage in the case of extended immersion in water in certain conditions.

Additional letters

An additional letter indicates the protection of personnel against direct contact with live parts (where the actual personal protection against direct contact with live parts is better than that indicated by the first digit).

A	With the back of the hand (Ø 50mm).
B	With the finger (Ø 12mm, L=80mm).
C	With a Ø 2.5mm, L=100mm tool.
D	With a Ø 1 mm, L=100mm wire.