



IP Ratings



Industrial PC - IP Ratings Explained

IP codes, as defined in the international standard BS EN 60529:1992, classify the degree of protection against intrusion from foreign objects such as solid objects, dirt, moisture, etc., in electrical enclosures. This rating system is designed to give you a more detailed description than terms such as waterproof are able to provide, in order that you will be able make an informed decision as to the suitability of the product for its intended application. This is particularly important for items such as our industrial PCs which may be used in more rigorous environments.

What do the numbers in an IP Rating stand for?

The digits that follow IP each have a specific meaning and indicate conformity with specific conditions, as defined in the tables below. The first digit indicates the level of protection that the enclosure provides against access to hazardous parts and the ingress of solid foreign objects. The second digit indicates the level of protection of the equipment inside the enclosure against harmful ingress of liquids.

First Digit - Solids

Level	Object Size Protected Against	Effective Against
0	-	No protection against contact and ingress of object
1	>50 mm	Any large surface of the body, such as the back of the hand but no protection against deliberate contact with a body part
2	>12.5 mm	Fingers or similar objects
3	>2.5 mm	Tools, thick wires, etc
4	1 mm	Most wires, screws, etc
5	Dust Protected	Ingress of dust is not entirely prevented but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact
6	Dust Tight	No ingress of dust; complete protection against contact

Second Digit - Liquids

Level	Protected Against	Effective Against
0	Not protected	-
1	Dripping Water	Dripping water (vertically falling drops) shall have no harmful effect
2	Dripping water when tilted up to 15°	Vertically dropped water shall have no harmful effect when the enclosure is tilted at an angle up to 15° from its normal position
3	Spraying water	Water falling as spray at any angle up to 60° from the vertical shall have no harmful effect
4	Splashing water	Water splashing against the enclosure from any direction shall have no harmful effects
5	Water jets	Water projected by a nozzle (6.3mm) against the enclosure from any direction shall have no harmful effects
6	Powerful water jets	Water projected in powerful jets (12.5mm nozzle) against the enclosure is immersed in water under defined conditions of pressure and time (up to 1m of submersion)
7	Immersion up to 1m	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1m of submersion)
8	Immersion beyond 1m	The equipment is suitable for continuous immersion in water under conditions which shall be specified by the manufacturer. Normally this will mean that the equipment is hermetically sealed. However, with certain types of equipment, it can mean water can enter but only in such a manner that it produces no harmful effects.

Industrial PCs

The Seiki's industrial touch screen PC solution is IP66 rated which means it is protected from total dust ingress and protected from high pressure water jets from any direction.

It is a ruggedised industrial solution with fanless design specifically developed for use in rigorous environments and is an ideal tool to help businesses enhance work efficiency and offer safer working environments on the shop floor with Seiki manufacturing software. Our industrial PCs combine simple operation and excellent visualisation all in one. They are available in 2 screen sizes and are ideally suited for delivering your full screen applications to the shop floor, enabling the user to view production information directly on screen, whilst also supporting data collection tasks and DNC operations

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