

Understanding the IP Rating System

Most of the products Lat 37 endorses are rated under an international system which assigns an Ingress Protection or IP protection rating. A summary of the IP system is given below. The IP system is relative and rational - always two letters (IP) followed by two digits. The first digit indicates the enclosure's degree of protection against solid objects while the second digit indicates a degree of protection against liquids.

□

▼ Degree of Protection First (contact hazard and IP Digit foreign object protection)

□

0 No special protection.

1 Protection against penetration of solid

□ objects larger than 50mm in diameter

□ (large objects). No protection against

□ intentional access, e.g. by hand, but

□ keeping larger body parts at a distance.

2 Protection against entry of solid objects

□ larger than 12mm in diameter (mediumsize

□ objects). Keeping out fingers and

□ other small objects.

3 Protection against entry of solid objects

□ larger than 2.5mm in diameter (small

□ objects). Keeping out tools, wires and

□ other objects larger than 2.5mm in

□ diameter.

4 Protection against entry of solid objects

□ larger than 1mm in diameter (granular

□ objects). Keeping out tools, wires and

□ similar objects of a thickness exceeding

□ 1mm.

5 Protection against harmful dust deposits.

□ Ingress of dust is not totally prevented, but

□ dust does not enter in sufficient quantity to

□ interfere with operation of the equipment

□ (dust protected). Full contact protection.

6 Protection against ingress of dust

□ (dusttight). Full contact protection.

▼ Second Degree of Protection IP Digit (water protection)

□

0 No special protection.

1 Protection against dripping water. It must

□ not have any harmful effect (dripping

□ water).

2 Protection against dripping water. Dripping

□ water shall have no harmful effect when

□ the enclosure is tilted at any angle 15° from

□ its normal position (indirect dripping

□ water).

3 Spraying water falling at any angle up to

□ 60° from vertical shall have no harmful

□ effect (spraying water).

4 Water splashed against the enclosure from

□ any direction shall have no harmful effect

□ (spraying water).

5 Water projected by a nozzle against the

□ enclosure from any direction shall have no

□ harmful effect (water jets).

6 Water from heavy seas or water projected

□ in powerful jets shall not enter the

□ enclosure in harmful quantities (flooding).

7 Ingress of water in a harmful quantity shall

□ not be possible when the enclosure is

□ immersed in water under defined

□ conditions of pressure and time

□ (submersion).

8 This equipment suitable for continuous

□ submersion in water under conditions

□ which shall be specified by the

□ manufacturer (submersion).

□

□

*"If you can measure it
you can manage it"*