What is IP69K?

The IP69K rating provides protection against ingress of dust and high temperature, high pressure water – making products with this certification ideal for use in conditions where equipment must be carefully sanitized.

In industries such as food processing, where hygiene and cleanliness is paramount, equipment must be able to withstand rigorous high pressure, high temperature wash-down procedures.

In many industries, where dust and dirt can be an issue, it is important to ensure that dust cannot penetrate the casing of a product and cause it to fail.

The IP69K rating is the highest protection available.

What are the advantages of IP69K?

In environments that require heavy washdown, such as in the food processing industry, the combination of water, chemicals, high pressures and temperatures can prove fatal for electronic circuits and instrumentation. The IP69K rating offers complete assurance that the piece of equipment that has undergone that tests is both durable and resistant and conforms to the highest protection rating on the scale.

How does a product achieve the IP69K rating?

Products bearing the IP69K rating undergo a challenging set of tests to ensure that they offer protection against penetration of high pressure, high temperature water and dust.

How is the water intrusion test performed?

The water intrusion tests themselves are done by placing the product on a turntable with a rotational speed of 5 ±1 revolutions per minute. The product is then sprayed at close range at a rate of approximately 4 gallons/16 liters per minute with water pressure of between 1160-1450 psi, at a temperature of 176°F/80°C.

The nozzle from which the water is sprayed is held between 4 and 6 inches from the product, at a variety of angles. Following this rigorous testing procedure, the product is deemed as having successfully achieved the rating if it completely resists water ingress.

The ***IP69K rating*** is currently the **highest protection available**. The IP69K rating provides protection against ingress of dust and high temperature, high pressure water. This makes products with this certification ideal for use in conditions where equipment must be carefully sanitized. In industries such as food processing, where hygiene and cleanliness is paramount, equipment must be able to withstand rigorous high pressure, high temperature wash-down procedures.

**What is IP69K?**

The IP69K rating is for applications where high

pressure and high temperature washdown is used to

sanitize equipment.

The IP69K test specification was initially developed

for road vehicles, especially those that need regular

intensive cleaning (dump trucks, cement mixers, etc),

but has been widely adopted in the Food & Beverage

industries as a test of products to withstand sanitary

washdown.

**What does IP69K mean?**

In the IEC 60529 rating system, IP6 refers to the product’s ability to resist

ingress of dust. The 69K refers to the product’s ability to resist ingress of

high temperature (Steam) / high pressure water.

**How is the product tested?\***

• Products rated to IP69K must be able to withstand high-pressure and

steam cleaning.

• The test specifies a spray nozzle that is fed with 80 °C water at 80–100

bar (~1160-1450) and a flow rate of 14–16 L/min.

• The nozzle is held 10–15 cm from the tested device at angles of 0°, 30°,

60° and 90° for 30 seconds each.

• The test device sits on a turntable that rotates once every 12 seconds.