

IP RATING SYSTEM FOR INGRESS PROTECTION

IP ratings have been popping up recently as a listed feature on products in the heavy-duty trucking industry in reference to vehicle components. But what is it, and why is it considered a benefit?

The "Ingress Protection" (IP) rating system was designed by the International Electro-Technical Commission (IEC). They are the world's leading organization for the preparation and publication of International Standards for electrical, electronic, and related technologies. They are an independent, non-governmental, not-for-profit organization, encouraging the development of products, systems and services that are safe, efficient, and environmentally friendly. The IP rating system is an important tool used to help determine the protection level of a product's ability to resist contaminants, with a focus on solids and fresh water.

How does the IP rating system work?

An IP rating is defined by the letters IP, followed by two numbers. Its sole purpose is to provide accurate information about the protection level an electrical fixture offers. The first number offers a scale of 0-6 and relates to the protection levels against solids like dirt, sand, dust, and debris. The second number (0-8) represents protection against liquids like moisture and water. The higher the number, the greater the protection against solids and liquids. Visit the IEC website for a breakdown of the values and what test configurations are done to identify an IP rated product.

What is the Benefit?

Ingress protection in the heavy-duty trucking industry provides products such as wire harnesses, cable assemblies, and other applications with long-standing quality, which is crucial when placed under wet or dusty environments. Contaminants can enter by infiltrating enclosures, casings, splices and connectors which can damage the product permanently. Typically, products that are made of zinc, or aren't sealed are more susceptible to corrosion. The good news is many products are available on the market today that offer weatherproof and waterproof protection to shield the electrical system. Keep an eye out for these products as they tend to be more durable.



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TIPS

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- The IP rating system is an important tool used to help determine the protection level of a product's ability to resist dust and fresh water, but is not designed to support additional liquids, like coffee or soda.
- Products that are IP rated or contain waterproof features are likely to benefit the user more than products that aren't sealed or made of zinc.

PRODUCT INFORMATION
related to this article is available [here](#).

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