

Ingress Protection - IP Grades of Protection

IEC 60309 - CEE 17 devices are provided with different grades of protection as indicated in the table below. The IP standard rating system defines the degree of protection provided. The first digit defines the protection against the ingress of dust particles, the second digit defines the protection against the ingress of water. The table below outlines IP rating for electrical connectors.

Product Features

IEC 60309 devices are manufactured in Polyamide 6, which provides effective insulation and has extremely high impact resistance strength.

IP 44 IP 55 IP 67

1 st Digit	Definition	Solids
0	No Protection against contact and ingress of objects	
1	Protected against any large surface of the body, such as the back of a hand. Protected against solid objects greater than 50mm in size.	
2	Protected against access to hazardous parts by a finger or similar object. Protected against solid objects greater than 12.5mm in size.	
3	Protected against access to hazardous parts with a tool or thick wire. Protected against solid objects greater than 2.5mm in size.	
4	Protected against access to hazardous parts with a wire, screw, etc. Protected against solid objects greater than 1mm in size.	
5	Protected against access to hazardous parts. Dust protected.	
6	Protected against access to hazardous parts. Dust-tight.	

Products have standard sizes and positions of flanges and contacts. This makes for full interchangeability of plugs and sockets of the same type possible, even of plugs and sockets of different manufactures.

The position on the earth contact varies according to the voltage rating and polarity. This makes it impossible to connect plugs and sockets of different current ratings and voltage.

2 nd Digit	Definition	Liquids
0	No Protection	
1	Protected against water drops	
2	Protected against water drops at a 15 degree angle	
3	Protected against water spray at 60 degree angle	
4	Protected against water splashing from any angle	
5	Protected against water jets from any angle	
6	Protected against powerful water jets and heavy seas	
7	Protected against the effects of temporary submersion in water. Test requires 30 minutes at 1 meter depth.	
8	Protected against the effects of temporary submersion. Customer specification applies and specific testing may be required.	

Industrial plugs and sockets are color coded, which prevents confusion about voltage and current ratings.

RATED VOLTAGE COLOR

- 110-130 Volt Yellow
- 200-250 Volt Blue
- 380-415 Volt Red
- 120/208-144/250 Volt Blue
- 220/380-240-415 Volt Red

Available on request are:
 440 volt & 500 volt devices.
 Marine & shipboard container devices.
 Combination switched outlet devices.

