

IP (Ingress Protection) Ratings Guide

The IP code or ingress protection code indicates how well a device is protected against water and dust. It is defined by the International Electrotechnical Commission (IEC) under the international standard IEC 60529 which classifies and provides a guideline to the degree of protection provided by mechanical casings and electrical enclosures against intrusion, dust, accidental contact, and water.

1st numeral

Solid foreign objects

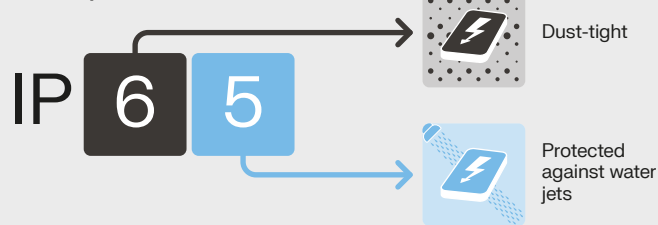
0	No protection	
1	Protected against solid foreign objects of 50 mm diameter and greater	
2	Protected against solid foreign objects of 12,5 mm diameter and greater	
3	Protected against solid foreign objects of 2,5 mm diameter and greater	
4	Protected against solid foreign objects of 1 mm diameter and greater	
5	Dust-protected	
6	Dust-tight	

2nd numeral

Water

0	No protection	
1	Protected against vertically falling water drops Vertically falling drops shall have no harmful effects	
2	Protected against vertically falling water drops when enclosure tilted up to 15° Vertically falling drops shall have no harmful effects when the enclosure is tilted at any angle up to 15° on either side of the vertical	
3	Protected against spraying water Water sprayed at an angle up to 60° on either side of the vertical shall have no harmful effects	
4	Protected against splashing water Water splashed against the enclosure from any direction shall have no harmful effects	
5	Protected against water jets Water projected in jets against the enclosure from any direction shall have no harmful effects	
6	Protected against powerful water jets Water projected in powerful jets against the enclosure from any direction shall have no harmful effects	
7	Protected against the effects of temporary immersion in water Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water under standardized conditions of pressure and time	
8	Protected against the effects of continuous immersion in water Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions which shall be agreed between manufacturer and user but which are more severe than for numeral 7	
9	Protected against high pressure and temperature water jets Water projected at high pressure and high temperature against the enclosure from any direction shall not have harmful effects	

Example:



<p>SanDisk Extreme® Portable SSD</p> <p>IP 6 5¹</p> <p>SanDisk</p>	<p>SanDisk Extreme PRO® Portable SSD</p> <p>IP 6 5¹</p> <p>SanDisk</p>	<p>G-DRIVE® ArmorATD™</p> <p>IP 5 4²</p> <p>SanDisk PROFESSIONAL</p>	<p>PRO-G40 SSD</p> <p>IP 6 8³</p> <p>SanDisk PROFESSIONAL</p>
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1. Based on internal testing. IPEC 60529 IP 65: Tested to withstand water flow (30 kPa) at 3 min.; limited dust contact does not interfere with operation. Must be clean and dry before use. 2. IEC 60529 IP54: Based on internal testing. Tested to withstand water splashing against the enclosure; limited dust contact does not interfere with operation. Must be clean and dry before use. 3. Based on internal testing.

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