

## IP65-69K DEFINITIONS, APPLICATIONS AND PRODUCT EXAMPLES



	QUICK REFERENCE	DEFINITION	APPLICATIONS	PRODUCTS
IP65 SPLASH	The minimum rating required for harsh environments.	Protection against the effects of dust and jet water by a nozzle (6.3 mm) from all directions.	Outdoor/indoor Wash-down processes Hygiene/sanitation processes Marine applications Indoor/outdoor lighting Meters & gauges for industrial, marine, etc.	Electric stepper motors     Light fixtures     Industrial monitors     Outdoor sensors/motion control     Medical PCs     Outdoor keypads     Balances and scales
IP66 POWERFUL WATER JETS	The minimum rating required for complete protection against dust.	Protection against the effects of dust and powerful jet water (12.5 mm nozzle) from any direction.	<ul> <li>Outdoor/indoor</li> <li>Consumer electronics</li> <li>Construction sites</li> <li>Industrial touchscreens</li> <li>Mining applications</li> <li>Industrial technology</li> <li>Applications involving heavy seas</li> </ul>	Weatherproof cameras     Electrical enclosures     Connectors/cables/adapters     LED lighting     Actuators     Panel-mount keyboards
IP67 IMMERSION UP TO 1M	The most standard rating. Represents much of iCONN's inventory.	Protection against the effects of dust and temporary immersion in water between 15 cm and 1 m for 30 minutes.	<ul> <li>Outdoor, indoor</li> <li>For applications involving falling dirt, hose-directed water, the formation of external ice, etc.</li> <li>Industrial manufacturing lighting</li> <li>Rugged consumer electronics</li> <li>Outdoor electronics and antennas</li> <li>Digital industrial tools</li> </ul>	<ul> <li>iPhone 7</li> <li>Weatherproof cameras</li> <li>Industrial LED high bay light fixtures</li> <li>PC-based industrial computer systems</li> <li>Sensors</li> <li>Cables/connectors/adapters</li> <li>Machine lighting</li> <li>Amplifiers and splitters</li> <li>Digital caliper</li> </ul>
IP68 IMMERSION BEYOND 1M	For extreme applications that require routine and prolonged ingress protection.	Protection against the effects of dust and continuous immersion in water and under pressure for long periods of time.	<ul> <li>Outdoor, indoor</li> <li>Military field equipment</li> <li>Automotive production</li> <li>Machine building</li> <li>Shipping and marine applications</li> <li>Aero and space equipment</li> </ul>	iCables/connectors/adapters     Submersible electrical enclosures     Waterproof enclosures     Fans and blowers     Waterproof Micro USB Connector     Wearable fitness electronics
IP69K	For specialized applications involving the most extreme environments and high-pressure exposure to water.	Protection against the effects of dust, continuous immersion in water and under pressure for prolonged periods of time, and high-pressure wash downs from all directions.	<ul> <li>Outdoor, indoor</li> <li>Applications involving routine power washing</li> <li>Car washes</li> <li>Food service (e.g., meat/dairy processing)</li> <li>Automotive production</li> <li>Industrial devices</li> <li>Military field equipment</li> <li>Aero and space equipment</li> </ul>	Waterproof/outdoor     PCs/monitors     Panel switches     Pilot devices     Cables/connectors/adapters     Control, buttons & indicator lights     Food-Grade motors