

IP Protection

Degrees of protection (IP) against water and contact provided by enclosures according to EN 60529

NormStandard EN 60529 describes the test procedure for degrees of protection. Depending on the degree of protection, the product is sprayed with a predetermined water pressure and a certain amount of water from a distance of about 3 m. This test takes only a few minutes and does not include spraying the product with a high-pressure cleaner. Constant spraying with water or installation outdoors requires provides additional protective measures.

Caution

The degrees of protection describe only the protection against the ingress of dust or water in an environmentally acceptable composition. For aggressive compositions, such as alkaline solutions, solvents, salt water, cement dust, etc. a specified enquiry is required.

IP 54







IP 55



IP 65



-  = Dust protected
-  = Dust proof
-  = Splash proof
-  = Jet proof

IP degrees and their significance

Component	Code numbers or letters	Significance for protection of equipment	Significance for personal protection
Code letters	IP		
First digit		Against ingress of solid foreign objects:	Against access to hazardous parts (with):
	0	No protection	No protection
	1	$\varnothing \geq 50,0$ mm	Back of hand
	2	$\varnothing \geq 12,5$ mm	Finger
	3	$\varnothing \geq 2,5$ mm	Tools and wires $\varnothing \geq 2,5$ mm
	4	$\varnothing \geq 1,0$ mm	Tools and wires $\varnothing \geq 1,0$ mm
	5	Dust protected	Full protection
	6	Dustproof	Full protection
Second digit		Against ingress of water:	
	0	No protection	
	1	Vertically dripping	
	2	Dripping water (up to 15° from vertical)	
	3	Spray water (up to 60° from vertical)	
	4	Splash water (from any direction)	
	5	Jet water (from any direction)	
	6	Powerful jet water (from any direction)	
	7	Temporary immersion	
8	Submersion		

When dealing with quotations, customer specifications, etc., check to verify, if required degrees of protection differ in any way from the details given in the GfA catalogue.