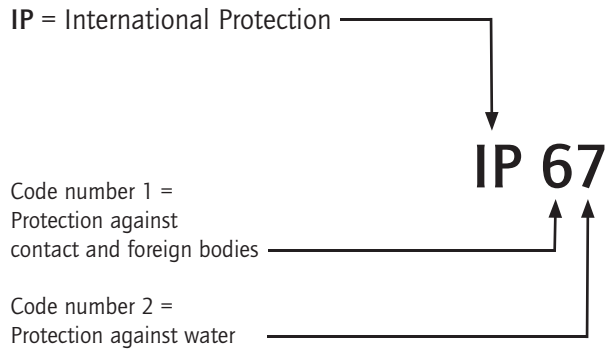


Protection classes

Norm IEC 60529



For safety reasons, connectors have to be protected against external influences like dust, foreign objects, direct contact, moisture and water. For industrial connectors, this protection is provided by their housings with their latching devices and sealed cable entries. The protection classes are also called IP Codes. The abbreviation IP stands for "ingress protection". Standard IEC 60529 specifies and divides the degree of protection into several classes.

The protection classes refer to protection against contact and ingress of solid foreign objects and dust (indicated by the first code digit of the IP Code) as well as against damaging ingress of water (indicated by the second code digit of the IP Code)

PROTECTION CLASS OVERVIEW

First code digit	Protection against ingress of foreign objects Protection against contact	Second code digit	Protection against water	Examples
0	Not protected	0	Not protected	
1	Protection against ingress of solid foreign objects with diameters > than 50 mm Protected against access with the back of the hand	1	Protection against vertically dripping water	
2	Protection against ingress of solid foreign objects with diameters > than 12.5 mm Protected against access with a finger	2	Protection against dripping water with 15° inclination	
3	Protection against ingress of solid foreign objects with diameters > than 2.5 mm Protected against access with a tool	3	Protection against spray water inclined up to 60°	
4	Protection against ingress of solid foreign objects with diameters > than 1 mm Protected against access with a wire	4	Protection against splashing water	
5	Protected against dust in harmful quantities Complete protection against contact	5	Protection against jet water	
6	Dust-proof Complete protection against contact	6	Protection against powerful jets of water	
		7	Protection against temporary immersion (max. water depth 1 m)	
		8	Protection against constant immersion beyond 1 m An additionally indicated number stands for the maximum immersion depth in meters.	
		9K	Protection against very strong jets of water, e.g. from high-pressure steam jet cleaners for vehicles.	