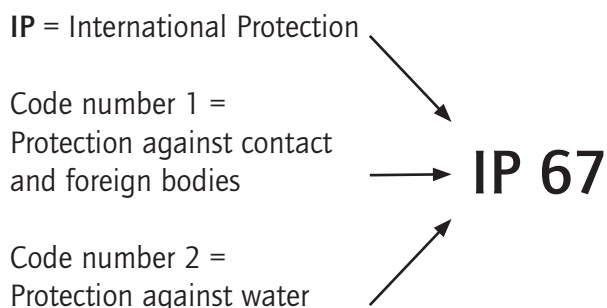


# DEGREE OF PROTECTION



Connectors have to be protected for safety reasons from outside influences like dust, foreign objects, direct contact, moisture and water. This protection is provided on industrial connectors by its housings with their latching devices and sealed cable entries. The degree of protection can be selected depending on the type of intended use. The degree of protection is indicated by a material code which consists of constant key numbers IP (International Protection) and two subsequent code numbers. The first code number specifies the degree of protection against contact and foreign bodies. The second code number specifies the degree of protection against damaging intrusion of water.

## INDEX NUMBER-DEFINITION

Code number 1	Definition	Explanation
0	Non-protected	
1	Protected against access to hazardous parts with the back of a hand. Protected against solid foreign objects of $\varnothing \geq 50\text{mm}$	
2	Protected against access to hazardous parts with a finger. Protected against solid foreign objects of $\varnothing \geq 12,5\text{mm}$	
3	Protected against access to hazardous parts with a tool. Protected against solid foreign objects of $\varnothing \geq 2,5\text{mm}$	
4	Protected against access to hazardous parts with a wire. Protected against solid foreign objects of $\varnothing \geq 1\text{mm}$	
5	Protected against access to hazardous parts with a wire. Dust protected.	Intrusion of dust is not totally prevented, but dust shall not penetrate in a quantity to interfere with satisfactory operation of the device or to impair safety.
6	Protected against access to hazardous parts with a wire. Dust-tight.	

Code number 2	Definition	Explanation
0	Non-protected	
1	Protected against water drops.	
2	Protected against water drops when enclosure tilted up to 15°.	
3	Protected against spraying water	Water sprayed of 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 disclosure from any direction shall have no harmful effects.
5	Protected against water jets	
6	Protected against powerful water jets	
7	Protected against the effects of temporary immersion in water	Intrusion of water in quantities causing harmful effects shall not be possible when the enclosure is temporarily immersed in water for 30 min. in 1m depth.
8	Protected against the effects of temporary immersion in water	Intrusion 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 water during high pressure/steam cleaning	