

## Ingress Protection (IP) Rating Guide

IP ratings are represented by combining the first and second digits of the below columns

1<sup>st</sup> Numeral - Solid Foreign Objects

2<sup>nd</sup> Numeral - Water

1 <sup>st</sup> Numeral - Solid Foreign Objects	2 <sup>nd</sup> Numeral - Water	
0 No protection 	0 No protection 	
1 Protected against solid foreign objects of 50 mm Ø and greater 	1 Protected against vertically falling water drops 	Vertically falling drops shall have no harmful effects.
2 Protected against solid foreign objects of 12,5 mm Ø and greater 	2 Protected against vertically falling water drops when enclosure tilted up to 15° 	Vertically falling drops shall not have any harmful effects when the enclosure is tilted up to 15° on either side of the vertical.
3 Protected against solid foreign objects of 2,5 mm Ø and greater 	3 Protected against spraying water 	Water sprayed at an angle of up to 60° on either side of the vertical shall have no harmful effects.
4 Protected against solid foreign objects of 1,0 mm Ø and greater 	4 Protected against splashing water 	Water splashed on the enclosure from any direction shall have no harmful effects.
5 Dust-protected 	5 Protected against water jets 	Water directed at the enclosure from any direction in a low pressure jet shall have no harmful effects.
6 Dust-tight 	6 Protected against powerful water jets 	Water directed at the enclosure from every direction in a powerful jet shall have no harmful effects.
 <p>IP 69 → Protected against water jets → Dust-tight</p>	7 Protected against the effects of temporary immersion in water 	Water must not ingress to such an extent as to cause harmful effects when the enclosure is temporarily immersed in water under standardised pressure and time conditions.
	8 Protected against the effects of continuous immersion in water 	Water must not penetrate to such an extent as to cause adverse effects when the enclosure is permanently immersed in water under conditions agreed between the manufacturer and the user. However, the conditions must be more difficult than for numeral 7.
	9 Protected against high pressure and temperature water jets 	Water directed at the enclosure from every direction under greatly increased pressure shall have no harmful effects.