

IP Rating Classification Guide

Ingress Protection ratings for solid particle and liquid ingress

The IP (Ingress Protection) rating system classifies the degree of protection provided by an enclosure against solid particles and liquids. The two-digit code indicates protection level: the first digit rates solid particle protection (0–6), and the second digit rates liquid protection (0–9). (The Infinium Transmitter enclosure is rated at IP 66. This document provides information on the what that rating means)

FIRST DIGIT Solid Particle Protection		SECOND DIGIT Liquid Ingress Protection	
0	No special protection	0	No special protection
1	Protection from solid objects up to 50mm in diameter	1	Protected against vertically falling drops or condensation
2	Protection from solid objects up to 12mm in diameter	2	Protected against falling drops up to 15° from vertical
3	Protection from solid objects up to 2.5mm in diameter	3	Protected against water sprays from any direction, up to 60° from vertical
4	Protection from solid objects up to 1mm in diameter	4	Protected against splash water from any direction. Limited ingress allowance
5	Protection from dust. Limited ingress allowance	5	Protected against low pressure jets of water. Limited ingress allowance
6	Complete protection against dust over extended time	6	Protected against high pressure jets of water from any direction. Limited ingress allowance
		7	Protected against short-term immersion between 15cm and 1m under pressure
		8	Protected against long-term immersion in water under pressure
		9	Protected against high pressure, high temperature jets from multiple directions

Rating Sample

IP66

- First digit "6" — Dust-tight. Complete protection against dust ingress over extended time periods.
- Second digit "6" — Protected against high pressure water jets from any direction. Suitable for outdoor and wash-down environments.

IP66 is commonly required for outdoor AV installations, transportation environments, and industrial deployments where dust and water exposure are expected.