

# Decoding Ingress Protection (IP) Ratings

## Solids

**IP0x:** No protection.

**IP1x:** Protection against large objects (>50mm).

**IP2x:** Protection against medium-sized objects (>12.5mm).

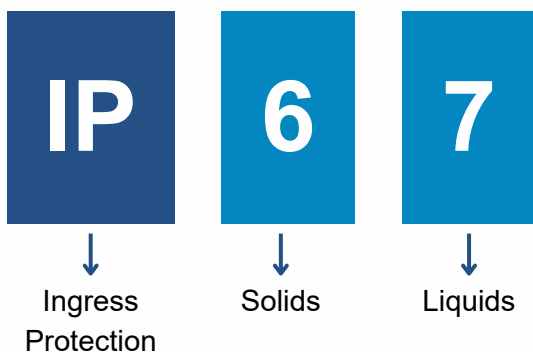
**IP3x:** Protection against small objects (>2.5mm).

**IP4x:** Protection against minute objects (>1mm).

**IP5x:** Dust-protected (limited ingress, no harmful deposits).

**IP6x:** Dust-tight (complete protection against dust).

## IP Rating Markings Key



## Liquids

**IPx0:** Protection against vertically falling drops of water.

**IPx1:** Protection against vertically falling drops when tilted up to 15 degrees.

**IPx2:** Protection against vertically falling drops when tilted up to 15 degrees.

**IPx3:** Protection against water spray (up to 60 degrees from vertical).

**IPx4:** Protection against water splashes from any direction.

**IPx5:** Protection against low-pressure water jets.

**IPx6:** Protection against high-pressure water jets.

**IPx7:** Protection against immersion in water (up to 1 meter for 30 minutes).

**IPx8:** Protection against continuous immersion in water (specified by the manufacturer).



Example IP Rating Markings