

# IP Ratings for Marine Throttle Controller Remotes

IP rating is an international standard that certifies how **dust and waterproof a device is over its lifespan**.

Our Competitor's remotes are only "Water Resistant" or have NO IP rating

## iTroll G3 Remote - IP68 - The highest possible rating!

### First digit: Solids Protection

- 0** No protection
- 1** Protected against solid objects over 50mm, such as a hand.
- 2** Protected against solid objects over 12mm, such as a finger.
- 3** Protected against solid objects over 2.5mm, such as a screwdriver.
- 4** Protected against solid objects over 1mm, such as a wire.
- 5** Dust Proof. Dust must not penetrate and impair operation or safety.
- 6** Totally protected against dust.

### Second digit: Water Protection

- 0** No protection
- 1** Protection against vertically dripping water.
- 2** Protection against diagonally falling water (up to 15°). 10 minutes at a rate of 1 mm / min.
- 3** Protection against diagonally falling water (up to 60°) spray. 5 minutes at 0.7 LPM @ 80-100kPa.
- 4** Protection against water splashed from all directions. 5 minutes @ 10 LPM at 80-100kPa, **limited ingress permitted.**
- 5** Protection against a 6.3mm water nozzle. 3 minutes @12.5 LPM at 30 kPa at a distance of 3 m, **limited ingress permitted.**
- 6** Protection against a 12.5 mm water nozzle. 3 minutes @100 LPM at 100 kPa at a distance of 3 m, **limited ingress permitted.**
- 7** Protection against submersion. 30 minutes at a depth up to 1 m.
- 8** Protected against long periods of immersion under pressure.



**iTroll G3 - IP 68**

**Water and Dust Proof  
for the life of the  
product!**

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IPx4 - IPx6 devices are commonly referred to as "Water Resistant". This may sound good, but in a marine application, these ratings are inadequate. If you look at the descriptions above, they are rated to survive the water splash or spray for only a few minutes. It's important to note these rating allow **"limited ingress" of water to enter the device!**

ANY amount of water in an electronic device will lead to failure. Even worse, a water related failure might cause your throttle to stick at 100% or your boat to steer unpredictably. The competitor's remote with NO IP rating has a THIN 1/16 inch wide seal and depends on a snap together enclosure to apply pressure on the seal. If you open the enclosure a few times to change batteries, the "snaps" wear and seal compression is compromised. Our supplier has told us that with a snap together enclosure, it's impossible to get a lasting degree of "water resistance" or an IPx7 or IPx8 rating.