



## IP66 Sealed QR145 Installation Instructions

### **Applicability:**

This guide applies to the QR145 encoder with Mounting Option 03 – IP66 Sealed Housing.

### **Surface Conditions:**

In order to maintain NEMA and IP rating integrity, the surface to which the encoder is to be mounted needs to be flat within .001" and have a surface finish of 60 $\mu$  or better. The surface should be free from debris and liquid of any kind.

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**Step 1.** The encoder housing is comprised of a bottom flange, or base and a top cover (see Fig. 1). These two are loosely held together and care should be taken not to apply undue stresses while the assembly is in this state. They are not to be taken apart, doing so will break the sealing around the cable, creating an area for ingress of contamination.

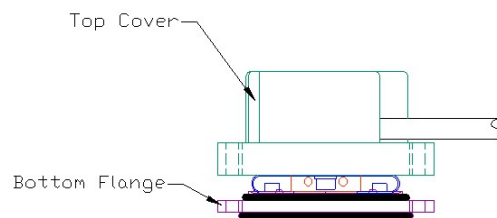


FIG. 1

**Step 2.** Slide the encoder assembly over the motor shaft and into place, being careful not to displace either of the two O-rings in the assembly, as shown in Figure 2.

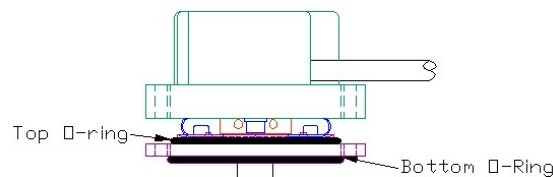


FIG. 2

**Step 3.** Tighten the setscrews by sliding an Allen wrench between the top cover and bottom flange and into the brass collar, as shown in Figure 3. There are two setscrews spaced 90 degrees apart. To avoid encoder damage, sufficient force should be used to ensure that the bottom flange is snug against the mounting surface when tightening the setscrews. Unwanted space between the bottom flange and the mounting surface will cause the encoder to engage the top cover during step 6.

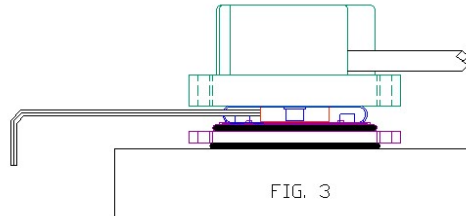


FIG. 3

**Step 4.** The cover should be fit onto the bottom flange, taking care not to dislodge the internal O-ring that seals the two housing sections.

**Step 5.** Using the provided D washers insert the customer supplied mounting screws (# 4 machine screw with a maximum head diameter of .215" recommend). Keep the flat of the "D" against the wall of the encoder housing.

**Step 6.** Tighten the machine screws until there is a small amount of rotational play left in the encoder (See Fig. 4). Time the encoder as necessary, and continue to fasten down the screws. Tighten in an alternating fashion to maintain constant pressure against the internal and lower O-Rings (a maximum of 2 to 2.5 inch-pounds is recommended). This is done in order to reduce the possibility of binding an O-ring.

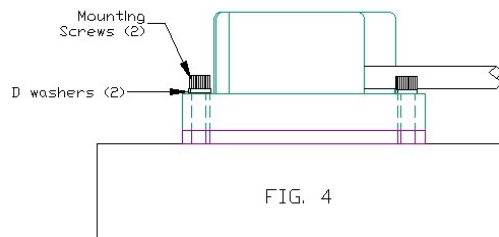


FIG. 4