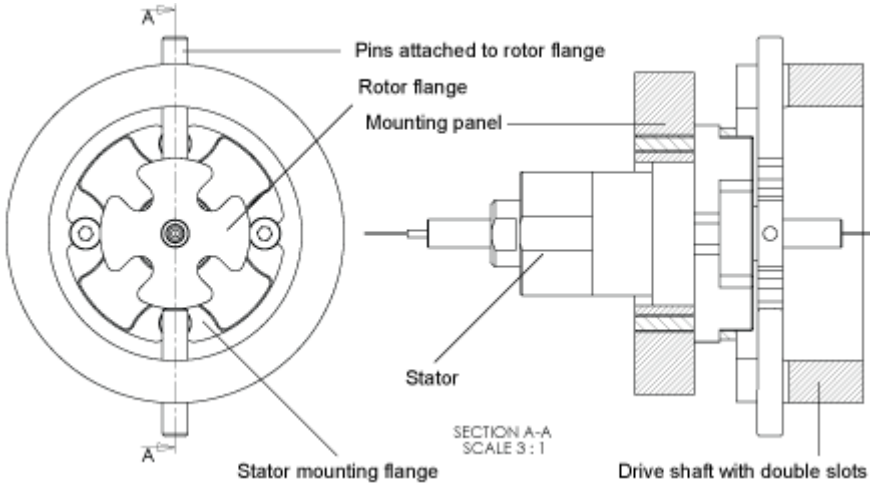
Mounting Instructions
Fiberoptic Rotary Joint

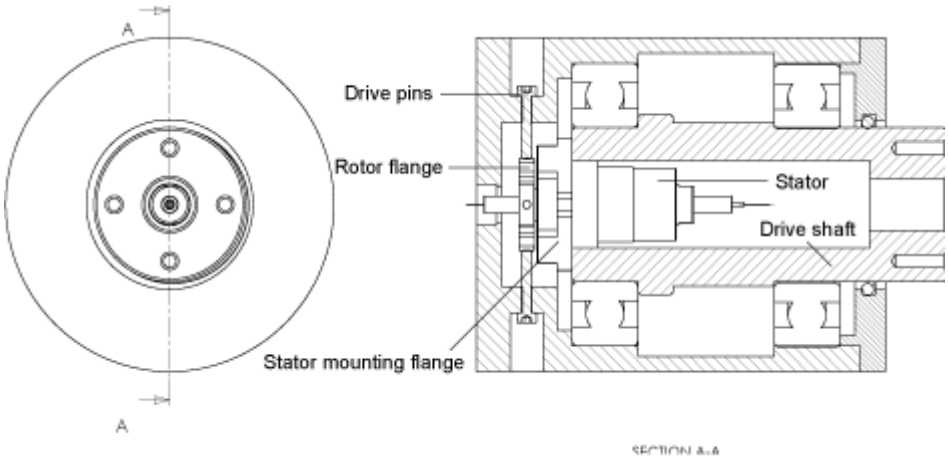
PANEL MOUNT

Secure the FORJ on a panel with four screws. The panel should be pre-tapped with screw holes. In case tapping is not possible on the panel or the panel is made of soft material such as plastic, use nuts or tapped metal rings behind the panel. Panel mount is highly recommended for two or multiple channel FORJs since the main body of the FORJ, the stator, stays stationary.



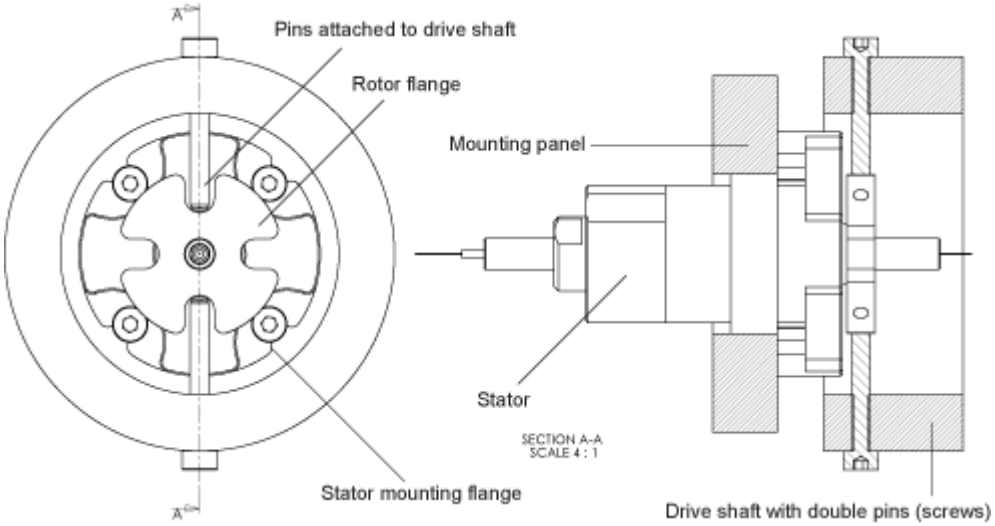
SHAFT MOUNT

If it is not desirable to leave the FORJ outside the rotational shaft and the shaft inside diameter is large enough, one can hide the entire body of the FORJ inside the rotational shaft. In this case, the FORJ stator becomes the moving part while the FORJ rotor remains stationary. Shaft mount significantly reduces the total length of the setup. This method is popular when single-channel FORJ is involved.



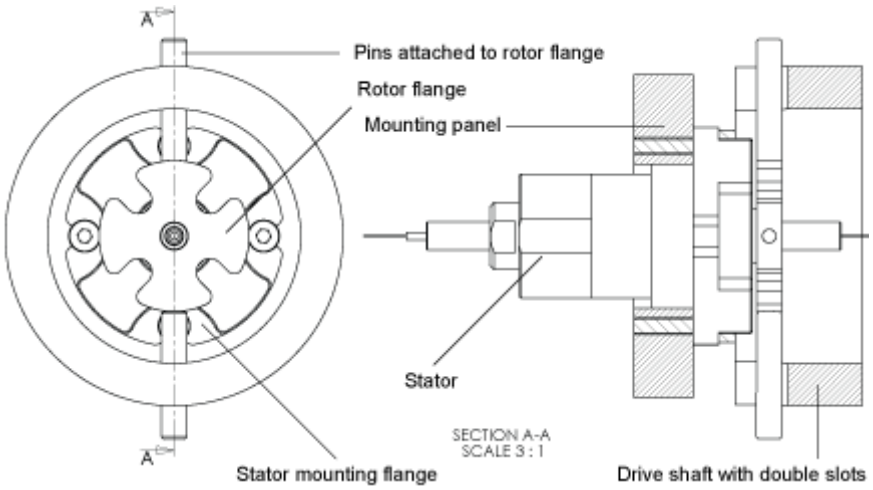
DRIVE METHOD 1: Radial pins (fan in)

All Princetel FORJs are designed with four slots on their rotor flanges. Use at least two pins (screws) secured on a cylinder to drive the rotor.



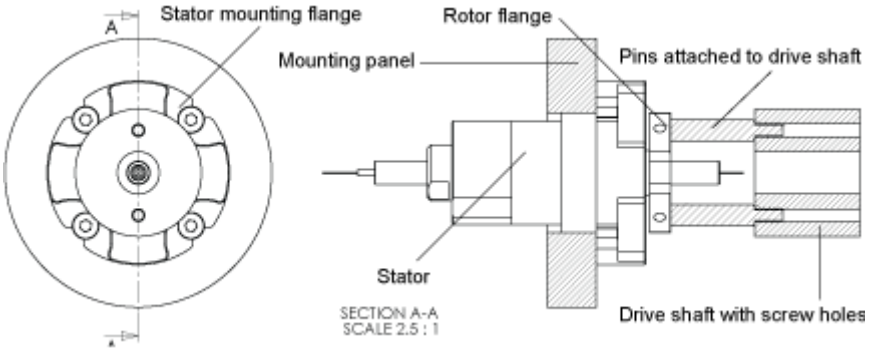
DRIVE METHOD 2: Radial pins (fan out)

Most Princetel's FORJs are designed with screw holes on the edge of the rotor flange. Secure at least two threaded pins or screws on the opposite side of the flange and use forks, rings, or slots on a disk or cylinder to drive them.



DRIVE METHOD 3: Axial pins

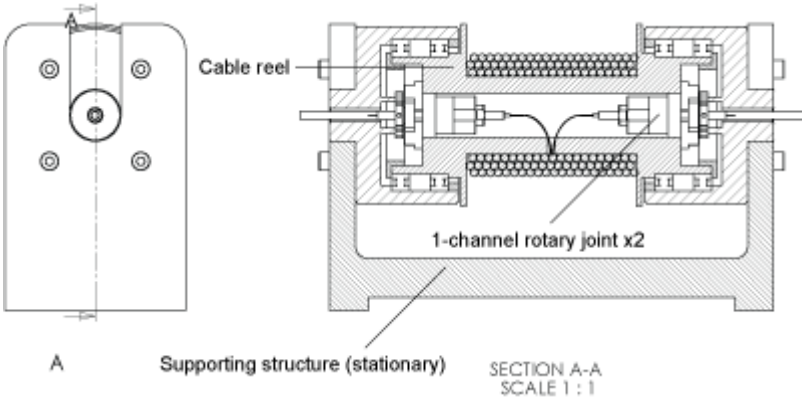
Engage at least two pins parallel to the rotational axis into the rotor.



1+1=2?
(2 1-channel FORJs=1 2-channel FORJ?)

Is it possible to use two single-channel FORJs as one dual-channel device? The answer is yes in some special applications (see diagram). Similarly, one can also double up on multiple channel FORJs to double the channel count. For example one can use two 12-channel FORJs to get 24-channel transmission.

Consult the factory for your specific application.



Handling and Maintenance

WARNING
Do not hold the stator of the FORJ while installing pins on the FORJ rotor. Hold the rotor flange in stead. That will free the ball bearings from unnecessary torque load.

WARNING
Drive pins should always be allowed to move freely in the slots. Tight fit between pins and slots can result in premature ball bearing failures.