

# Fil-Tech, Inc.

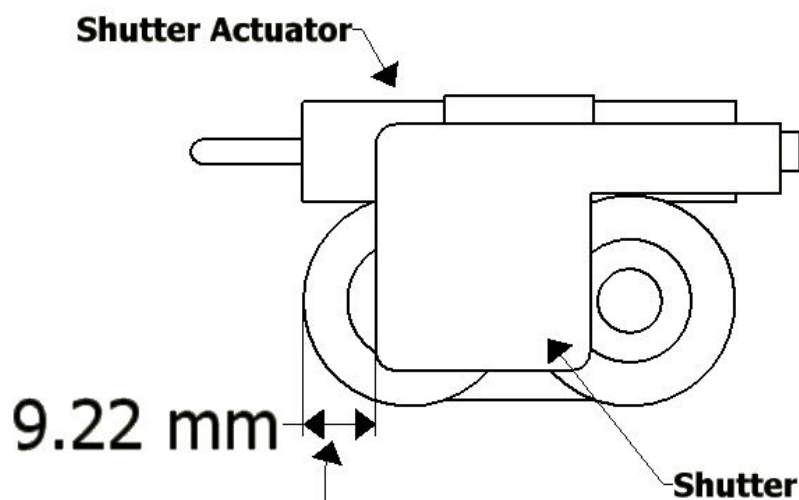
## Sensor Head Actuator Troubleshooting Guide



Thank you for purchasing a Fil-Tech Sensor Head! Dual sensors heads use a pneumatically powered actuator to move the position of the shutter. The bellows and springs inside the air actuator are mechanical components that will operate up to 500,000 actuations before wearing out (depending on the air source and operating environment) . They can not be repaired or rebuilt because of the hermetic seal that allows them to operate in a vacuum.

Pneumatic actuators are easy to maintain and typically operate trouble-free. The few issues that can happen have relatively simple fixes which are outlined in the table below:

Problem	Possible Solutions
Shutter does not cover top sensor location when actuated.	<ul style="list-style-type: none"><li>- Check position of shutter and actuator. The bottom of the shutter should be 9.22 mm from base of sensor head. If it is not, then slide assembly into proper position as depicted in the schematic below.</li><li>- Check air source to see if air pressure is 55-60 psi.</li><li>- Make sure actuator piston is not impeded by material from thin film evaporation.</li></ul>
Shutter does not move.	<ul style="list-style-type: none"><li>- Make sure air lines are connected.</li><li>- Check air to see if air pressure is 55-60 psi.</li><li>- Make sure actuator piston is not impeded by material from thin film evaporation.</li></ul>



**The bottom of the shutter should just cover the backup sensor. Slide the actuator in either direction to make the appropriate adjustment.**