



# PFCN Instructions

Bimba's ISO9001 system verifies that all products produced and delivered meet Bimba's rigid quality standards and meet or exceed the expectations of customers. This certificate verifies that the non-contact Position Feedback Cylinder shipped in this box is free of defects in workmanship and materials and has been calibrated for 0 to 10 V DC output fully retracted to fully extended, with 24 V DC applied. If you want to readjust for 0-10 V as fixtured in your application, follow the instructions below:

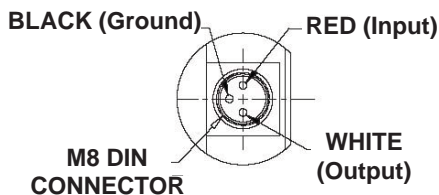
1. Install the PFCN in your application.  
Remove the rear end cap exposing the probe and four adjustment screws.
2. Position the actuator to full retract at 80 psi. Adjust the output as close to zero as possible using the coarse adjustment "RET(CS)," and then the fine adjustment "RET(FN)."
3. Position the actuator to full extend at 80 psi. Adjust the output to 10 V DC using the coarse adjustment "EXT(CS)," and then the fine adjustment "EXT(FN)."



**PCS controller instruction manual – download the most up to date copy at <http://www.bimba.com/Products/PositionControl/>.**

For optimum performance:

1. Identify your minimum requirements for accuracy and repeatability and make sure they are achievable before purchasing components.
2. If you are converting the analog feedback voltage into a digital signal, consider A/D conversion accuracy and time, and use differential A/D conversion (not open ended).
3. Use a single point ground approach with a separate wire from each piece of equipment to the single point ground location.
4. Physically separate electrically noisy components from sensitive devices and cables. Noisy components include AC lines and magnetic fields.
5. Provide the PFCN and controls with clean, dedicated power supplies (do not share with electrically noisy valves, relays or solenoids).
6. Order DC powered valves with diode suppression.
7. Order AC powered valves with R-C Snubber suppression.
8. If a valve or relay does not include internal noise suppression add an Okaya model number XEB0471 RC Snubber across the items power leads (locate it as close as possible to the noise source). Okaya's US office is located in Valparaiso, Indiana, and their phone number is 219-477-4488.
9. Always use the lowest noise (ripple) regulated power supply you can afford for your sensitive items. If a vendor offers any kind of noise suppression device as an accessory for their component), order it. Locate it as close to the component as possible.
10. Always use twisted, shielded cable (preferably instrumentation grade) for any sensitive signal path. Use cable with a drain wire (the drain wire is connected to the foil shield); it is much easier to connect the drain wire to a ground than it is to connect the foil shield to ground.
11. Always minimize the length of unshielded wire that extends beyond the conductor (try to expose less than 0.10 inch of unshielded wire).
12. Do not attach both ends of the cable's shield to ground; attach one end only, preferably at the data acquisition end. If this is not possible, it is far better to leave both ends "floating" than it is to attach both ends to ground.



Wires	6" Leads	Plug
Input	Red	Blue
Ground	Black	Black
Output	White	Brown

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