

Phase 1 Instruments - Controller Exercise 1.

Bumpless Transfer

Name :-

Date:-

Aim - The aim of this exercise is to show the automatic Bumpless Transfer or Auto Tracking function that can be used on an electronic controller.

Read all instructions before starting exercise!

DO NOT connect any device to the mains until it has been checked by the T.O.

1. Obtain an electronic controller, electronic D.P cell , I/P convertor and C/V.
2. Connect a 240v Mains lead to the correct terminals.
3. Connect the output of D.P cell to input of controller using 250 ohm resistor to produce 1-5 volt drop across input terminals of controller.
4. Identify output terminals of the controller and connect to input of I/P.
5. Connect output of I/P to control valve input.
6. Connect air supply to C/V.
7. With the controller on manual alter the output value and observe the movement of the C/V.
8. Set the output to 25%
9. With pressure applied to the D.P. cell so that the output is approx 12 mA (as shown on right hand bar display), switch the controller to Auto. What happens to the output to the valve (valve position)?

Findings –