



## Split Range with C3 Cam

Below describes the steps to split range two valves using a C3 cams so that Valve A rotates 30° with an input signal of 3-9psi (or 4-12mA) and Valve B rotates 30° with an input signal of 9-15psi (or 12-20mA).

In theory, what is being done is taking the 60° lobe and dividing it in half using the first half of the rotation for Valve A and the second half of the rotation for Valve B while controlling both with one 3-15psi or 4-20mA signal.

Assuming air to open = CCW rotation for Valve A, set the cam on the 60° lobe side A and start in the position shown in picture to the right. Set the zero so that the valve is just starting to respond to a signal change when increasing from 3 psi or 4mA. Increase signal to 9 psi ( 4mA) and set the span, decrease signal to 3 psi (4mA) to double check the zero. Depending on the valve stroke, the calibration may be "tight" due to the use of only 6 psi of pressure differential.

Valve B will start at about midway up the slope of the 60° lobe of the cam (very near the span or end position of Valve A). This will be the Zero for Valve B. The picture to the right shows an estimation of the start point for Valve B, this may need to be adjusted. Once again the zero and span will need to be adjusted and several strokes from open to close may be needed to get the unit to calibrate correctly and to operate as desired.

Gauges on the positioner are recommended to help with calibration of the unit by seeing pressure movement on them.

