

**ANSWER KEY – LABORATORY EXERCISE 3  
VALVES AND POSITIONERS**

4. EXERCISE

Ramp:	ON
Positioner being used?	NO
Value of Deadband?	5%
Value of Stick-Slip	2%

When stem moves, how much%	2%
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When signal reverses, how much?	5%
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Response look reasonable?	???
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Add positioner.

Stem track signal?	Yes
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Remove positioner.

Ramp generator off.

Stem position does not match signal?	True
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Signal 70%

Stem movement approximately first order Lag, except for stick-slip:	Yes
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Approximate time constant:	3 seconds
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Add positioner.

Signal 50%

Underdamped response?	Yes
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Period:	1.4 seconds
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