

Start



```
graph TD; Start([Start]) --> Read[read value from flow sensor]; Read --> GetParams[get flow control parameters from struct]; GetParams --> Calculate[calculate new output value]; Calculate --> Write[write output value to control pin]; Write --> Update[update flowVal, prevTime, prevError, integral, prevOutput, output in struct]; Update --> End([End]);
```

The flowchart illustrates a PID control loop. It begins with a 'Start' terminal, followed by a sequence of processing steps: reading a value from a flow sensor, retrieving control parameters from a struct, calculating a new output value, writing this value to a control pin, and updating various state variables (flowVal, prevTime, prevError, integral, prevOutput, and output) within the struct. The process concludes at an 'End' terminal.

read value from
flow sensor

get flow control
parameters from struct

calculate new output
value

write output value to
control pin

update flowVal,
prevTime, prevError,
integral, prevOutput,
output in struct

End