

Re: slow response time of Ph circuit

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aman wrote:

- > *I have a simple PH circuit following is the description*
- >
- > *A pH probe involves measurement of the DC Voltage created between one*
- > *Silver/Silver Chloride reference electrode – that has connection to the*
- > *conductive water via a low impedance salt bridge (a porous plug filled*
- > *with highly conductive potassium chloride) – that creates a known and*
- > *very constant voltage.*
- >
- > *It has an instrumentation amplifier as it is not possible to measure*
- > *the voltage directly as it is a high impedance circuit.*
- >
- > *It was working fine but lately it takes like 15 minutes to settle down.*
- > *So it has a long long response time of 15 minutes now.*
- >
- > *What can this be due to ? Any ideas ?*
- >

Bad Reference Electrode !, or bad Combination Electrode

Plugged Reference Electrode Junction

Ultra pure water, Very high Resistance ~10/15 Megohm !

What are you measuring ! Standard Buffers are ~0.05/0.10 Mol.

If it's slow response to Standard Buffers then likely a plugged Junction
Fast Test, Hold beaker in one hand while measuring pH and shuffle foot
across floor, with Bad Junction, readings will swing wildly due to
static electric build-up.

Yukio Yano