TELEDYNE
INSTRUMENTS
Advanced Pollution Instrumentation

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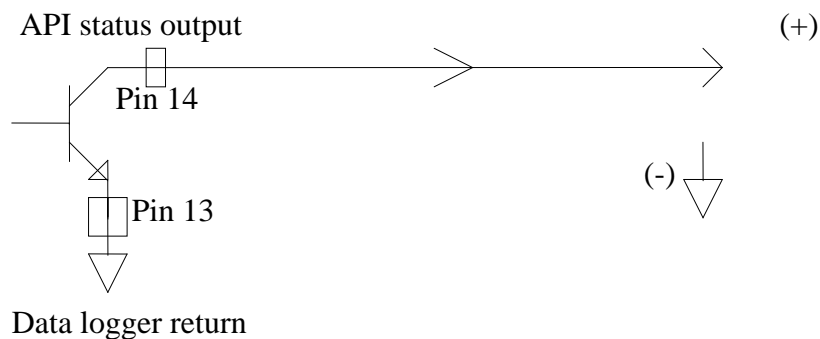
Service Note

95-019 Rev B
2 May, 2007

STATUS OUTPUTS

All API analyzers provide status output option. This option reports various modes and conditions within the analyzer. This is done through on-off opto-isolator switching (not relay contacts). These transitor coupled switches can pas 50 m.a. of direct current. The transistor allows current to pass when the output is active.
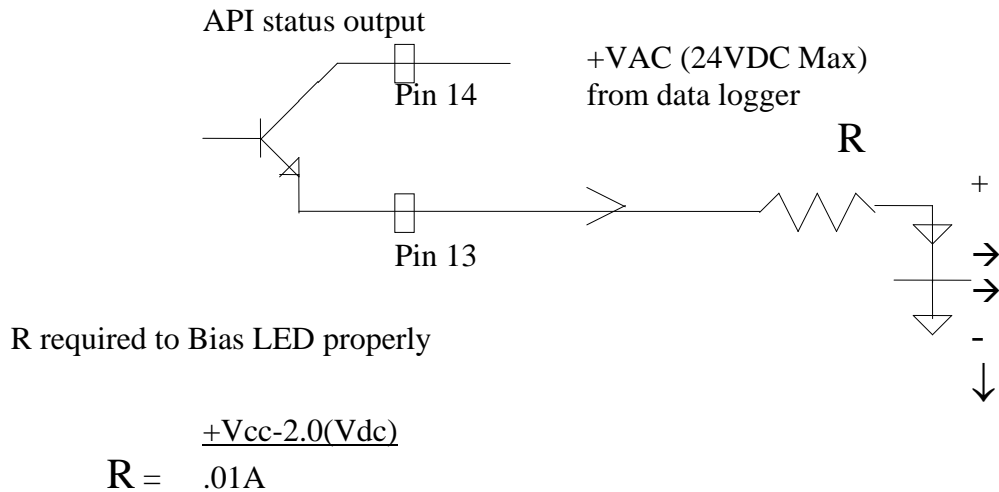
There are three common interface techniques between API instruments and data acquisition equipment.

The following drawings represent typical hook-ups. A listing of pin assignments can be found in the manual for your instrument.
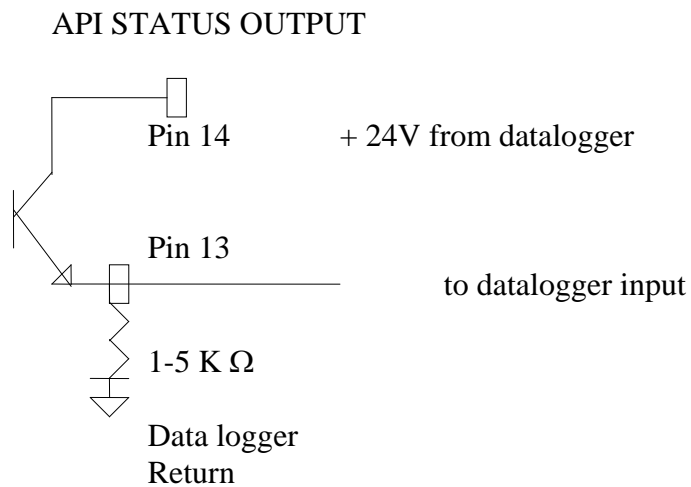
1.   If the datalogger inputs are "TTL" then the configuration of the status output should be as follows (typical):

API status output   (+)

Pin 14

(-)

Pin 13

Data logger return

2.   If the datalogger inputs are driven by current, when the logic is HIGH (e.g., input
     LED of the optocoupler)

API status output

Pin 14   +VAC (24VDC Max)
                from data logger

                                R

Pin 13

R required to Bias LED properly

$$R = \frac{+Vcc-2.0(Vdc)}{.01A}$$

3.   If the datalogger supplies a voltage (e.g., 24V) and expects to see the voltage
     duing a closure, connect as follows:

API STATUS OUTPUT

Pin 14   + 24V from datalogger

Pin 13

                to datalogger input

1-5 K Ω

Data logger
Return

If you have special configuration needs for the status outputs interface, please contact API
Customer Service Department.