

WEST 8080 / VEEDER-ROOT S628 / HENGSTLER 0735A ANALOG INDICATOR BENCH CALIBRATION PROCEDURES

1. General

Connect the appropriate input to the unit. Refer to Sections 2 to 6 for details of terminals and input signals for each variant.

As the first action after power-up, hold down the SCROLL and PGM keys for at least six seconds. The unit will then show **inP_1** indicating that the first Calibration Phase is ready to be executed.

Wait for the prescribed settling time before starting the calibration process.

Press the PGM key to start calibration. The display will show - - - - - while calibration proceeds. If the operation was successful the display will show Pass. If the calibration fails, the message will be **FAIL**. The PGM key will obtain the Calibration Phase prompt again.

Press the DOWN key to step to the next Calibration Phase.

A Settling Time of 20 seconds should be allowed between connecting the calibration source and carrying out the relevant calibration phase.

2. DC Process

Cal Phase	1	2	3	4	5	6	7	8
Input Signal	100mV	10V	20mA		1V			
Terminals	1(-) 3(+)	1(-) 2(+)	1(-) 3(+)		1(-) 2(+)			

3. DC Volts/Amps

Cal Phase	1	2	3	4	5	6	7	8
Input Signal	100mV							1A
Terminals	1(-) 3(+)							3(+) 4(-)

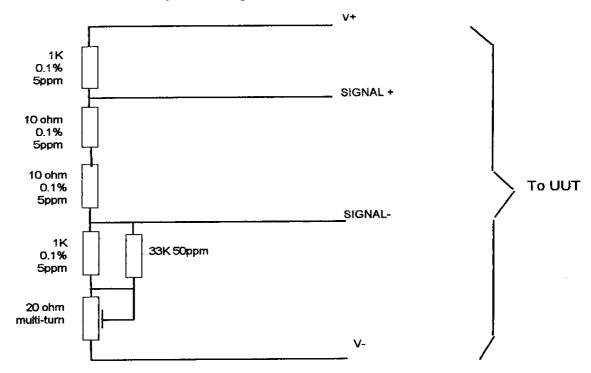
4. Strain Gauge

Connect the Strain Gauge Simulator as detailed below.

Cal Phase	1	2	3	4	5	6	7	8
Input Signal	100mV/10V							
Terminals	1(signal-) 2(signal+) 5(supply-) 6(supply+)							

Strain Gauge Simulator.

The circuit below is one way of devising such a simulator.



The simulator is calibrated using a high accuracy dc voltmeter. The voltage between Signal+ and Signal- is adjusted using the 20ohm potentiometer to be precisely 101.000% of the voltage applied between V+ and V-. Note that the simulator must be joined to the unit under test by short low resistance wires with good connections, as the sense connection is not used.

5. Temperature

Cal Phase	1	2	3	4	5	6	7	8
Input Signal	100mV						200R	
	4(-) 3(+)						1(I+) 2(V+) 3(V-) 4(I-)	

6. AC Volts/Amps

An accurate AC rms current source (1.000A) and AC rms voltage source (100mV) are required at a frequency of 100Hz. Alternatively a short term stable sine wave signal generator with adjustable output which is set using an external high accuracy AC voltmeter. A 1A current source can be obtained using a power amp to drive the instrument in series with a suitable resistor. Although 100Hz is the nominal calibration signal frequency, you may choose any frequency in the range of 20Hz to 5kHz, for which the optimum accuracy is required.

Cal Phase	1	2	3	4	5	6	7	8
	100mV							1A
Terminals	1(Lo)							3(Hi)
	3(Hi)							4(Lo)

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