

<b>Manufacturer:</b>	Fluke	<b>Asset No:</b>	XDEVS001
<b>Model No:</b>	SL935	<b>Description:</b>	Standard Resistor - Multiple
<b>Serial No:</b>	001	<b>Procedure Used:</b>	PICP-10194
<b>Calibration Date:</b>	11/28/2017		

Process Instruments, Inc. certifies that the above instrument has been calibrated using standards traceable to the National Institute of Standards and Technology (NIST) or other national metrology institutes, or to accepted values of natural physical constants, or derived by the ratio type of self-calibration techniques.

The reported uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2. The reported uncertainty is valid only at the time of test and does not take into account any effects such as long-term drift, transportation or other factors that may affect the stability of this device.

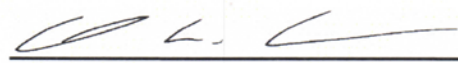
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**STANDARDS USED**

ID	Description	Due Date
140078	Hart Scientific 2564 Thermistor Scanner Module	1/31/2018
140124	Leeds & Northrup 4210 Standard Resistor - 1 Ohm	9/30/2018
140132	Measurements International 6010B Current Comparator Resistance Bridge	7/31/2018
140157	GE Thermometrics S25 Standard Thermistor	1/31/2019

**Notes:**

**Laboratory Environment:**  
 Temperature: 22.90°C  
 Humidity: 27.4%RH

**Approved By:**   
 Karl W. Klevens Quality Manager

**P.O. Number:** CC

This standard resistor was calibrated by comparing it to a standard resistor while in an air bath at 23.00°C ( $\pm 0.05^\circ\text{C}$ ) with an automatic current comparator resistance bridge. The value reported is the mean of the last 25 measurements of a run of at least 30 measurements taken. All values expressed are in terms of the SI 1990 values of voltage and/or resistance and in terms of the ITS-90.

**Measured Value  
@ 100.00 mADC**

1.00005902  $\Omega$

**Uncertainty**

0.17 ppm

### TEMPERATURE COEFFICIENTS OF RESISTANCE\*

Alpha ( $\alpha$ ) = 0.01117 E-06  $\Omega / ^\circ\text{C}$

Beta ( $\beta$ ) = -0.00023 E-06  $\Omega / ^\circ\text{C}^2$

\*Corrections to the value at 23°C, expressed in ppm, were calculated using these values and are tabulated below.

### TEMPERATURE CORRECTIONS

Temperature in  $^\circ\text{C}$

Corrections to value at 23.00°C

Temp	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
18	-0.06	-0.06	-0.06	-0.06	-0.06	-0.05	-0.05	-0.05	-0.05	-0.05
19	-0.05	-0.05	-0.05	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04	-0.04
20	-0.04	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.02
21	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.01	-0.01	-0.01
22	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
24	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02
25	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.03	0.03
26	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
27	0.04	0.04	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05
28	0.05	0.05	0.05	0.05	0.05	0.05	0.06	0.06	0.06	0.06

This standard resistor was calibrated by comparing it to a standard resistor while in an air bath at 23.00°C ( $\pm 0.05^\circ\text{C}$ ) with an automatic current comparator resistance bridge. The value reported is the mean of the last 25 measurements of a run of at least 30 measurements taken. All values expressed are in terms of the SI 1990 values of voltage and/or resistance and in terms of the ITS-90.

**Measured Value  
@ 0.30 mADC**

9999.9747  $\Omega$

**Uncertainty**

0.33 ppm

### TEMPERATURE COEFFICIENTS OF RESISTANCE\*

Alpha ( $\alpha$ ) = 0.00890 E-06  $\Omega / ^\circ\text{C}$

Beta ( $\beta$ ) = 0.00042 E-06  $\Omega / ^\circ\text{C}^2$

\*Corrections to the value at 23°C, expressed in ppm, were calculated using these values and are tabulated below.

### TEMPERATURE CORRECTIONS

Temperature in  $^\circ\text{C}$

Corrections to value at 23.00°C

Temp	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
18	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03
19	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.03	-0.02	-0.02	-0.02
20	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02
21	-0.02	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01
22	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00
23	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
24	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02
25	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
26	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04
27	0.04	0.04	0.04	0.05	0.05	0.05	0.05	0.05	0.05	0.05
28	0.05	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.07	0.07

End of Measurement Results