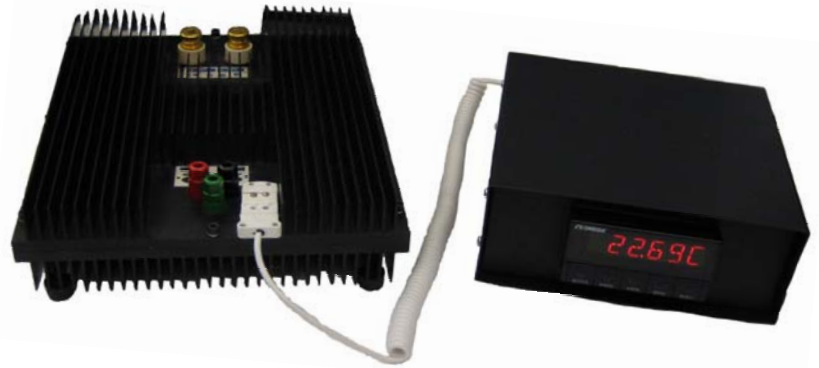


CS-SERIES TEMPERATURE OPTION

- *FOR IMPROVED ACCURACY*
- *INSTALLED TEMPERATURE SENSOR*
- *TEMPERATURE / CURRENT CHARACTERIZATION*
- *FOR OHM-LABS OR OTHER SHUNTS*



CS-200 SHUNT (SHOWN WITH RTD THERMOMETER FOR ILLUSTRATION)

For the highest accuracy measurements, Ohm-Labs precision shunts can be supplied with a temperature option. As a shunt heats with applied current, its resistance changes.

A temperature sensor is installed into the shunt. The shunt is calibrated through rated current, allowed to stabilize at each current level. Temperature / current data are used to generate an equation and table. The equation can be used to calculate resistance at a given temperature.

100 ohm platinum RTD sensors (385 curve) are standard, but type T thermocouple or 10 K thermistor sensors are also available. A standard mini-jack with mating plug is supplied for customer temperature measurement.

The CS-Temp Temperature Option can be added to existing shunts by other manufacturers.

All Ohm-Labs shunts include ISO17025 accredited calibration through full current range. The CS-Temp option includes an additional page with temperature / resistance data, as shown in the examples below.

All sample data are obtained from actual production shunts.

Ohm-Labs provides accredited calibration for current shunts up to 1000 A.



CS-SERIES TEMPERATURE OPTION

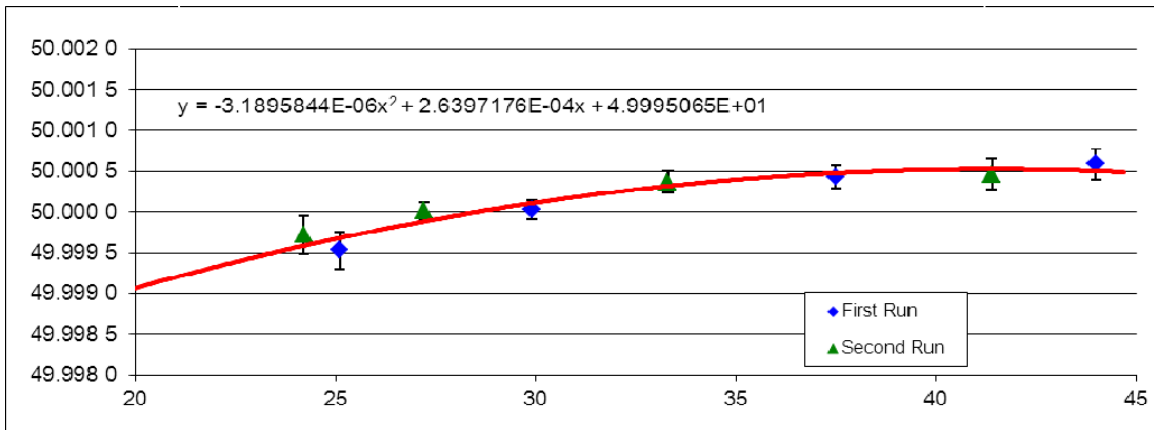
*SAMPLE CS-200 TEMPERATURE VS. RESISTANCE CURVE AND EQUATION
INCLUDES ADDITIONAL NON-STANDARD CAL POINTS FOR ILLUSTRATION*



SAMPLE CS-200 TEMPERATURE / RESISTANCE TABLE

°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS
20	0.999 985	30	1.000 028	40	1.000 054	50	1.000 064	60	1.000 057	70	1.000 035	80	0.999 996
21	0.999 990	31	1.000 031	41	1.000 056	51	1.000 064	61	1.000 056	71	1.000 032	81	0.999 991
22	0.999 995	32	1.000 034	42	1.000 057	52	1.000 064	62	1.000 054	72	1.000 028	82	0.999 986
23	1.000 000	33	1.000 037	43	1.000 058	53	1.000 064	63	1.000 052	73	1.000 025	83	0.999 981
24	1.000 004	34	1.000 040	44	1.000 060	54	1.000 063	64	1.000 050	74	1.000 021	84	0.999 976
25	1.000 008	35	1.000 043	45	1.000 061	55	1.000 063	65	1.000 048	75	1.000 017	85	0.999 970
26	1.000 013	36	1.000 045	46	1.000 062	56	1.000 062	66	1.000 046	76	1.000 013	86	0.999 965
27	1.000 017	37	1.000 048	47	1.000 062	57	1.000 061	67	1.000 043	77	1.000 009	87	0.999 959
28	1.000 020	38	1.000 050	48	1.000 063	58	1.000 060	68	1.000 041	78	1.000 005	88	0.999 953
29	1.000 024	39	1.000 052	49	1.000 063	59	1.000 059	69	1.000 038	79	1.000 001	89	0.999 947

SAMPLE CS-20 TEMPERATURE VS. RESISTANCE CURVE AND EQUATION



SAMPLE CS-20 TEMPERATURE / RESISTANCE TABLE

°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS	°C	MILLIOHMS
20	49.999 069	25	49.999 671	30	50.000 114	35	50.000 397	40	50.000 521	45	50.000 485
21	49.999 202	26	49.999 772	31	50.000 183	36	50.000 434	41	50.000 526	46	50.000 459
22	49.999 329	27	49.999 867	32	50.000 246	37	50.000 465	42	50.000 525	47	50.000 426
23	49.999 449	28	49.999 956	33	50.000 303	38	50.000 490	43	50.000 518	48	50.000 387
24	49.999 563	29	50.000 038	34	50.000 353	39	50.000 509	44	50.000 505	49	50.000 341