

PROCESS CALIBRATOR

High performance easy to use calibrator

3 INSTRUMENTS IN ONE

- Process calibrator
- DMM
- Pulse generator



Sefram 4830

Capabilities

- Voltage source $\pm 15V$
- Current source $\pm 25mA$
- Square signal generator
- 50000 counts multimeter, with simultaneous measurement
- Measure voltage, current, frequency
- Temperature measurement
- Datalogger mode
- Backlighted LCD display
- RS-232 SCPI interface
- PC software (option)

Technical Specification	SEFRAM 4830
Source mode	
Constant voltage output	
Range	$\pm 1,5V$ and $\pm 15V$
Accuracy	$\pm(0,03\% + 3d)$
Resolution	0,1mV and 1mV
Constant current source	
Range	$\pm 25mA$
Maximum load	500 ohms (12V)
Accuracy	$\pm(0,03\% + 5d)$
Resolution	1 μA
Frequency source	
Range	0,5Hz to 4800Hz
Amplitude	5, 12, $\pm 5V$ and $\pm 12V$
Pulse width variation	1/Freq*256
Memory generation	
SCAN	16 steps
Ramp	999 steps
Multimeter mode	
Display counts	50000
Measurement method	TRMS AC+DC
DCV ranges	50mV to 250V
ACV ranges	50mV to 250V
DCA ranges	50mA / 500mA
ACA ranges	50mA / 500mA
Resistance ranges	500 ohms to 50Mohms
% scale for mA	0-20mA and 4-20mA

Supplied with : cest leads, protective carrying case, NiMH rechargeable batteries, main adaptor, user's manual
Delivered with : software kit including RS/USB interface

Optional accessories : see page 54, 55, 56, 57.

Technical Specification	SEFRAM 4830
Diode test	yes
Continuity with buzzer	yes
Frequency measurement	
Range	1Hz to 200kHz
Pulse width	0,2ms to 1999,9ms
Duty cycle	0,1% to 99,9%
Temperature (K type)	0°C compensation
Peak Hold	yes, 1ms
Datalogger	yes
General Specification	
Display	LCD, backlighted
Auto power off	off / 1 to 999 mn
Interface	RS-232, optoisolated, SCPI
Operating temperature	0°C to 40°C
Power supply	8 x 1,2 NiMH
Dimensions	54 x 90 x 192 mm
Weight	1710g
CEI1010	250V CAT II



PROCESS CALIBRATOR

Temperature calibrator

Capabilities

- Simulate 13 thermocouples
- mV output with 0,03% accuracy
- Simultaneous current measurement
- Transmitter simulation 0-1V / 0-100%
- DC 24V loop power (24V DC)
- MIN, MAX, Average functions
- Relative mode
- Audible alert for high/low limit
- Opto isolated RS-232 interface

Technical Specification

Thermocouple output			
Type	Range (°C)	Resolution	Accuracy
Type J	-210 ~0	0,1°	± (0,03%+1,0°C)
	0 ~1200	0,1°	± (0,03%+0,6°C)
Type K	-200 ~0	0,1°	± (0,03%+1,0°C)
	0 ~1372		± (0,03%+0,6°C)
Type E	-200 ~0	0,1°	± (0,03%+1,0°C)
	0 ~1000		± (0,03%+0,6°C)
Type T	-200 ~0	0,1°	± (0,03%+1,0°C)
	0 ~400		± (0,03%+0,6°C)
Type R	-50 ~1768	1°	± (0,03%+1,0°C)
Type S	-50 ~1768	1°	± (0,03%+1,0°C)
Type B	300 ~1820	1°	± (0,03%+2,0°C)
Type N	-200 ~0	0,1°	± (0,03%+1,5°C)
	0 ~1300	0,1°	± (0,03%+1,0°C)
Type G	0 ~2320	1°	± (0,03%+2,0°C)
Type C	0 ~2320	1°	± (0,03%+2,0°C)
Type D	0 ~2320	1°	± (0,03%+2,0°C)
Type U	-200 ~0	0,1°	± (0,03%+1,0°C)
	0 ~600	0,1°	± (0,03%+0,6°C)
Type L	-200 ~0	0,1°	± (0,03%+1,0°C)
	0 ~900	0,1°	± (0,03%+0,6°C)
Cold junction type	Range	Resolution	Accuracy
External compensation	0 ~40°	0,1°	±(0,03%+0,9°C)
Pt385 / 1k ohms	-20 ~250°	0,1°	±(0,03%+12°C)
DCV output			
	-10mV to 110mV	0,01mV	±(0,03%+3d)
	-0,1V to 1,1V	0,1mV	±(0,03%+3d)
Loop power			
	100mV	0,01mV	±(0,03%+3d)
	1V	0,1mV	±(0,03%+3d)
Loop power	24V	±10%	load> 1kohms
DC mA measurement			
	20mA	1µA	±(0,03%+3d)
	200mA	10µA	±(0,03%+3d)
Alarm output			
Output voltage	3 to 24V DC		
Output current	0,01mA to 3 mA		
General Specification			
Display	LCD, backlighted		
Interface	RS-232, optoisolated, SCPI		
Operating temperature	0°C to 40°C		
Power supply	Battery 9V (alkaline)		
Autonomy	>25 hours		
Dimensions	192 x 90 x 37mm		
Weight	1240g		

Supplied with : battery, pouch, test leads, user's manual



Sefram 4821