

Linear Recorders



2000 Series Modular



Linear 2000 Series

**Includes FREE Roll of
Chart Paper and Pen(s)!**

Customizable Recorders for the Physiology Lab or Factory Floor!

- 1 and 2 channel flatbed models
- Variable input types via plug-in modules
- Optional battery packs

Product Description

- Linear 2000 Series flatbed recorder models are specialized to accommodate one or two of five Input Modules measuring temperature, voltage, current, pH or strain gauge input.
- 2010 models use 100 mm width chart paper; 2020 and 2030 models use 200 mm chart paper.
- Input modules simply plug into the recorder.
- Offscale signal dampening.
- Chart speeds of up to 30 cm/min or com/hr. Stepper motor driven chart mechanism is crystal controlled with a chart speed accuracy of $\pm 0.25\%$.
- Pen drive response time is < 0.5 seconds full scale.

- Standard event marker (approx. 2% spike) notes commencement of analysis.
- Operating ambient temperature range: 5°C - 40°C (41°F - 104°F); 35 - 80% RH, non-condensing allows cold room operation.

Applications

- Physiology Research/Teaching Laboratories
- Industrial Processing/Quality Control Monitoring

ORDERING INFORMATION

Model #	Linear Series #	Overall Dimensions Inches (cm)			# of Channels	Electrical (50/60 Hz)			Chart Width	Shipping Weight Lb. (kg)	US List Price
		W	H	D		Volts	Amps	Watts			
LR93225	2010	7.5 (19.1)	5 (12.7)	9.5 (24.1)	1	120	0.2	24	100 mm	13 (5.9)	\$1,232.00
LR93220	2010	7.5 (19.1)	5 (12.7)	9.5 (24.1)	1	240	0.1	24	100 mm	13 (5.9)	\$1,286.00
LR93325	2020	12.5 (31.7)	5 (12.7)	9.5 (24.1)	1	120	0.2	24	200 mm	15 (6.8)	\$1,393.00
LR93320	2020	12.5 (31.7)	5 (12.7)	9.5 (24.1)	1	240	0.1	24	200 mm	15 (6.8)	\$1,393.00
LR93425	2030	12.5 (31.7)	5 (12.7)	9.5 (24.1)	2	120	0.2	24	200 mm	15 (6.8)	\$2,036.00
LR93420	2030	12.5 (31.7)	5 (12.7)	9.5 (24.1)	2	240	0.1	24	200 mm	15 (6.8)	\$2,036.00

* Model LR93225 may be ordered with optional battery pack by adding the suffix -61. (i.e. LR93225-61.) Model LR93220 may be ordered with optional alarm by adding the suffix -60. Part numbers LR93325 and LR93425 may be ordered with optional battery packs by adding the suffix -61.

ACCESSORIES

Chart Paper/Disposable Pens			Chart Paper/Disposable Pens		
Model #	Description	US List Price	Model #	Description	US List Price
9501-1595	Battery Pack, NiCad/Channel	\$203.00	Channel 2 Pens		
0100-0011-06	Chart Paper, 0-100 grid, 100 mm, 30 meter roll (6 rolls)	\$80.00	0100-0109-06	Blue Fiber-Tipped Pen, pkg. of 6	\$25.00
0100-0026-06	Chart Paper, 0-100 grid, 200 mm, 25 meter roll (6 rolls)	\$80.00	0100-0110-06	Red Fiber-Tipped Pen, pkg. of 6	\$25.00
Channel 1 Pens			0100-0111-06	Black Fiber-Tipped Pen, pkg. of 6	\$25.00
0100-0105-06	Blue Fiber-Tipped Pen, pkg. of 6	\$25.00	0100-0112-06	Green Fiber-Tipped Pen, pkg. of 6	\$25.00
0100-0106-06	Red Fiber-Tipped Pen, pkg. of 6	\$25.00			
0100-0107-06	Black Fiber-Tipped Pen, pkg. of 6	\$25.00			
0100-0108-06	Green Fiber-Tipped Pen, pkg. of 6	\$25.00			

Linear Recorders



2000 Series Modular



Linear Signal Conditioning Modules

Product Description

- **pH Module** records pH directly from electrodes with BNC connectors. High ($10^6 \text{ M}\Omega$) input impedance. Expanded scale (10x) allows the use of any pH 1.4 unit or 70 mV portion of total scale as total range and for greater accuracy. Module features controls for slope and manual temperature compensation (0 to 100°C).
- **Strain Gauge Module** accurately records strain gauge measurements while the built-in 3 1/2-digit LCD indicates the values. Includes adjustable power supply (2-11 VDC) to power your strain gauge.
- **Thermocouple Module** accepts types J, K, T and E thermocouple probes with miniconnectors. Module conditions the signal, displays it on a built-in 3 1/2-digit LCD, and sends it to the pen drive for recording. Module features three selectable spans (100, 500, and 1000°C/°F).

- **Volt/Millivolt Module** can be used with devices with outputs up to 12.5 V. Panel controls include attenuation up to 2.5:1.
- **Current Module** accepts signals to be recorded such as humidity, pressure, and flow. Features zero offset, zero suppression, and variable gain adjustment. Input impedance is 100Ω at 1 mA and 0.2Ω at 1 A.

ORDERING INFORMATION

Linear Conditioning Modules									
Model #	Input Module	Input Range (s)	Accuracy	Input Impedance	Zero Setting	Gain/Attenuation	Output	Shipping Weight Lb. (kg)	US List Price
0024-0000	pH	pH: 0-14, $\pm 700 \text{ mV}$	$\pm 0.03 \text{ pH}$ $\pm 3 \text{ mV}$	$10^6 \text{ M}\Omega$	+50 to -150 %pH $\pm 100\% \text{ mV}$	None	0-100 mV	2 (0.9)	\$362.00
0028-0000	Strain Gauge	10 mV to 3 V	$\pm 0.1\% \text{ F.S.}$	100 k Ω	None	0.01, 0.1, 1,	2-11 V (Power) 10, 100X	2 (0.9)	\$597.00
0023-0000	Thermocouple	Types J, K, T, E	$\pm 2^\circ\text{C} + \text{probe}$ 0-100, 500, 1000 °C/°F	n/a	Offset 100°C window -250° to 1900°F	None	1 mV per degree	2 (0.9)	\$623.00
0021-0000	Millivolt/Volt	1, 2, 5, 10, 20, 50 mV 0.1, 0.2, 0.5, 1, 2, 5 V	0.1% F.S.	2.5 M Ω	$\pm 100\%$	up to 2.5:1 attenuation	0-100 mV	2 (0.9)	\$394.00
0022-0000	Current	0-1, 0-10, 0-100 mA 4-20, 10-50 mA; 0-1A	0.1% F.S.	0.2 Ω to 100 Ω (6 total)	0-100%	1 to 1.25 X gain	0-100 mV	2 (0.9)	\$394.00