

LX229

The Leyro Portable Process Calibrator LX229 is a handheld, battery-operated instrument that measures and sources a variety of electrical parameters. It can be widely applied in industrial fields and laboratories. The upper display allows you to measure volts, current and thermocouples. The lower display allows you to measure and source volts, resistance temperature detectors (RTD), thermocouples (TC), resistance and frequency.



Power adapter and
micro USB cable



Test leads



External temperature
detector



Portable pack

APPLICATIONS
On site calibration
Maintenance and service
All kind of industry
Machinery Constructions

HIGHLIGHTS
Compact and light
Easy to use
Accuracy $\pm 0.02\%$
Zero Clearing
Auto flash terminals

General Information

Compact, light and easy to use

A split-screen display and calibration functions

Accuracy $\pm 0.02\%$

Warranty: 1 year against factory defects



Environmental performance

Operating Temperature Range(°C) -10°C to 55°C

*All specifications apply from 18 to 28°C and assume a 5 min warm-up period

Safety standards and certifications

IP54

EMC standards

EN55022, EN 55024

Vibration

Random, 2g, (5...500)Hz

Shock

Half-sine wave, 30g, 11ms

Physical

Dimensions

223,5 x 111 x 45,5mm

Weight

670g approx.

Power requirement

5V, 2A

Power adapter requirement

(100...240)VAC

DC Voltage

Type	Range	Accuracy (%)
Measure	0...100mVDC (M)	+/- 0,02
	0...30VDC (M)	+/- 0,02
	0...100mVDC (S/M)	+/- 0,02
	0...20VDC (S/M)	+/- 0,02
Source	0...100mVDC	+/- 0,02
	0...10VDC	+/- 0,02

mA

Type	Range	Accuracy (%)
Measure	0...24mADC	+/- 0,02
Source	0...24mADC	+/- 0,02

*Load capacity: 750Ω/20mA

Frequency

Type	Range	Resolution	Accuracy (%)
Measure	(1...1100)Hz	0,1Hz	+/- 0,05
	(1...10)kHz	0,01kHz	+/- 0,05
	Sensitivity not less than 1V (peak to peak) Wave form : Square wave		
Source	(1...1100)Hz	1Hz	+/- 0,05
	(1...5)kHz	0,1kHz	+/- 0,05
	Wave form : (0...22)V +/-0.5V peak to peak Load drive capability 3mA		

*M (Measure)

*S (Source)

Resistance

Accuracy (Ω)

Type	Range	4 wire	2-3 wire
Measure	(0...400)Ω	+/- 0,1	+/- 0,15
	(0,4...1,5)kΩ	+/- 0,5	+/- 1,0
	(1,5...3,2)kΩ	+/- 1,0	+/- 1,5
Excitation current: 0,5 mA			
3 wire: Assumes matched leads with a total resistance not exceeding 100Ω			
Resolution:		(0...1000)Ω : 0,01Ω	
		(1,0...3,2)kΩ : 0,1Ω	

Type	Range	Excitation current	Accuracy (Ω)
Source	(15...400)Ω	(0,15...0,5)mA	+/- 0,15
(2 wire)	(15...400)Ω	(0,5...3)mA	+/- 0,1
	(0,4...1,5)kΩ	(0,05...0,8)mA	+/- 0,5
	(1,5...3,20)Ω	(0,05...0,4)mA	+/- 1,0

Before sourcing or measuring, offset errors caused by internal elements or external factors must be cleared

RTD		Accuracy (°C)	Accuracy (°C)	Accuracy (°C)
Type	Range	M. 4 wire	M. 2-3 wire	S. 2 wire
Cu50	-50...150	+0,6	+1,0	+0,6
PT100 (385)	-200...800	+0,3	+0,5	+0,3
PT100 (3916)	-200...510	+0,3	+0,5	+0,3
PT200 (385)	-200...250	+0,2	+0,3	+0,2
	-250...630	+0,8	+1,6	+0,8
PT500 (385)	-200...500	+0,3	+0,6	+0,3
	500...630	+0,4	+0,9	+0,4
PT1000 (385)	-200...100	+0,2	+0,4	+0,2
	100...630	+0,2	+0,5	+0,2

Resolution: 0,1°C

Excitation current (source):

Cu50, PT100(385), PT100 (3916), PT200 (385) (0,15...3,0)mA

PT500 (385) (0,05...0,80)mA

PT1000 (385) (0,05...0,40)mA

3 wire, assumes matched leads with a total resistance not exceeding 100Ω

Before sourcing or measuring, offset errors caused by internal elements or external factors must be cleared

Thermocouple		
Type	Range	Accuracy (°C)
J	-200...0	+0,8
	0...1200	+0,5
K	-200...0	+1,0
	0...1370	+0,6
T	-200...0	+1,0
	0...400	+0,6
E	-100...0	+0,7
	0...950	+0,5
R	-20...0	+2,3
	0...500	+1,6
	500...1750	+1,2
S	-20...0	+2,3
	0...500	+1,6
	500...1750	+1,3
B	600...800	+2,0
	800...1000	+1,6
	1000...1800	+1,2
N	-200...0	+1,3
	0...1300	+0,7

Resolution: 0,1°C

Cold junction error: +0.5°C

Typical error of the temperature detector :+0.2°C

Standard delivery:

Process calibrator, MC leads, U-clamp, short jumpers

Power adapter and micro usb cable

Portable pack

User Manual and Conformity Certificate