

SSL920 Handheld Level Meter

Features

- Simultaneously meet horizontal/vertical ultra-high precision reference position measurement
- On-site zeroing and measurement mode switching
- LCD dual-axis attitude data display with resolution 0.001 °
- Ultra-high measurement accuracy up to 0.005°@25°C±3°C
- Magnetic base 10Kg load capacity
- Zero offset $\leq \pm 5''$
- Internal lithium polymer battery for continuous 8 hour continuous measurement



Overview

The SSL920 handheld zero-point measuring instrument enables high-precision measurement of pitch/roll attitude at 0°, 90°, and 180° positions, and is mainly used for on-site installation, debugging, and calibration of high-precision requirements.

The device has a zero position correction and zero setting button, which can perform zero position correction and zeroing operation at multiple positions to obtain sufficient high precision reference data, and has a positioning dovetail groove. The dovetail slot has a magnetic chuck that can be externally switching regulation provides up to 10kg of magnetically permeable surface adsorption capacity.

The backlit LCD display visually displays the measurement data, and by switching the buttons, the elevation and roll angle data of one position are displayed at the same time, and the display resolution reaches 0.001°.

The device is powered by a lithium polymer battery, ensuring continuous uninterrupted measurement for 8 hours.

Application

- Structural installation
- Laboratory measurement
- Precision machinery

Reference

- GB/T 191 SJ 20873-2003 Inclinator, Level General Specification
- GJB 450A-2004 General Requirements for Equipment Reliability
- GJB-299C-2006 Electronic Equipment Reliability Forecast Manual
- GJB 7826 Failure Mode and Effect Analysis Program
- GJB1032 Electronic Product Environmental Stress Screening Method
- GBT 18459-2001 The Index calculation method for Sensor main static performance
- JJF 1094-2002 Measuring Instrument Characteristics

Technical Parameters

Base Shape	With positioning dovetail groove, with magnetic suction cup, manual adjustment by switch, suction of magnetic suction cup $\leq$ 10kg
Material	Base: carbon steel Internal sensitive parts mounting base: 304 stainless steel Other parts: 6061-T6 aluminum alloy
Weight	$\leq$ 3.0kg (the weight of the magnetic chuck is not included)
Dimensions	length $\times$ width $\times$ height : 160 $\times$ 156 $\times$ 40mm
External data output interface	5-pin Lemo connector output, USB interface, ASCII code, refresh rate 0.5Hz
Lithium battery charging	Dedicated 3-pin Lemo charging port, repeated charging times 2000 times
Power supply	The lithium polymer battery is powered for 8 hours and provides AC220V to DC24V transformer charger for direct power supply.
Storage temperature range	0~40℃
Allowable temperature change rate	1℃/min
Operating temperature	25℃ $\pm$ 3℃ Nominal accuracy guarantee
Preheating and soaking time	10 mins
Display update rate	1 time/2 second
Data stabilization time	10 second
Measuring position	0°、90°、180°
Input axis misalignment	$\leq \pm 0.1^\circ$
Allow input shaft misalignment	$\pm 3.0^\circ$
Resolution	0.001°
Zero temperature drift coefficient	$\leq 0.003^\circ / ^\circ\text{C}$
Zero repeatability	$\leq 0.005^\circ$
Axes	Two axes, pitch/roll
Range	$\pm 3^\circ / \pm 5^\circ$, Other ranges can be customized

Dimension(mm)

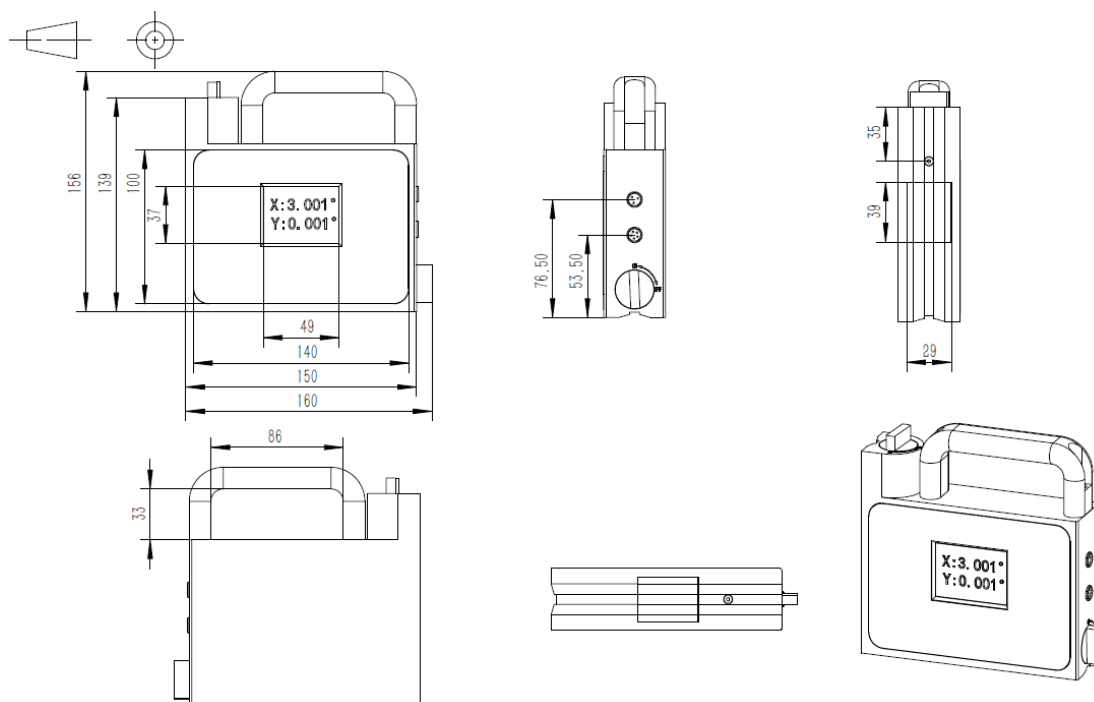
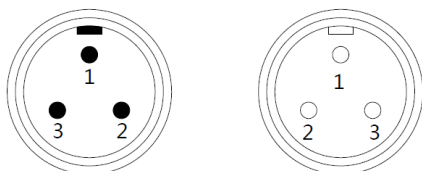


Figure 1 Housing

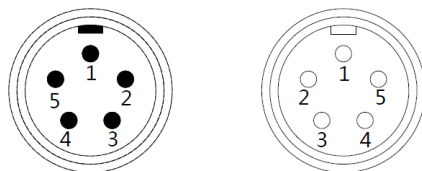
Wiring

Power interface (3 cables)



Connector Pin number	Features
1	Power supply +
2	NC
3	Power ground

Data interface (5 cables)



Connector Pin number	Features
1	TX+
2	TX-
3	Signal ground
4	RX+
5	RX-