



## SPECIFICATIONS

Item No.: SP-2

Description: Digital Display Inclinometer

(Dedicated for Measuring Level angle only)

Version: Ver.08

# SP-2- Digital Display Inclinometer (Dedicated for Measuring Level angle only)



## General Description

The new SP-2 digital display inclinometer (digital display level) which developed by Rion Company is a digital inclination (angle) sensor achievements into applications. The LCD digital display level inclinometer using new sensor technology to be developed which alternative to the traditional blisters level sensor, capable of connecting digital instrumentation. Adopts the LCD backlight digital display, can be used at night; realize the quantitative measurement of the angle of deviation from the horizontal plane ;Digitized, integrated, miniaturized instruments development trends; widely used in road works, mechanical measurement, construction, and many occasions where need to use gravity reference system ; The product has a electronic detection and digital display ,etc. characteristics, make our building supervising (inspection) industry farewell the angle measurement that followed the Millennium "to see the blisters for angle measurement" . SP-2 digital inclinometer with small size, the accuracy can be maintained 0.1 degree within  $\pm 60$  measuring range , and currently widely used in construction and railway construction and other industries.

## Features :

- Accuracy: 0.1°
- Power supply: 9V PP3 alkaline battery
- Angle data response fast
- Working temperature -10°~ +45°C
- Stand-by time :: up to 700 days
- Measuring display range:  $\pm 90^\circ$  (actual measuring range 360°)
- 90 secondes auto power-off , 0deg, 90deg, 180deg auto hint function
- Repetitive error: 0.07°
- With number hold function, convenient for record
- Angel compensation function
- IP54 protection class

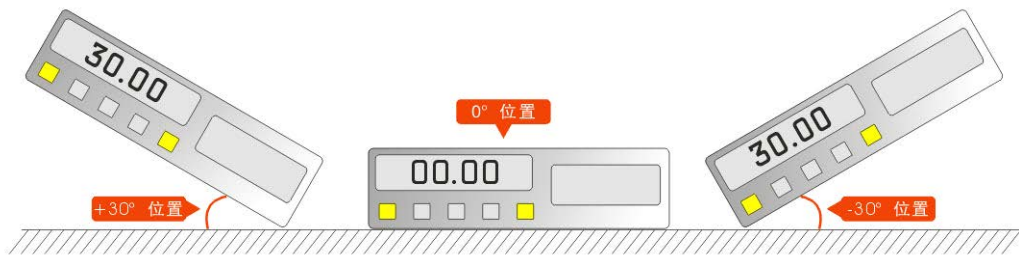
## Application:

- Building operations
- Vehicle maintenance
- Road grade
- Machinery installation
- Pipe installation
- Industry platform



# SP-2- Digital Display Inclinator (Dedicated for Measuring Level angle only)

## Measurement Direction




## Technical Data

Parameters	SP-2	Unit
Measuring range	4*90	°
Measuring accuracy	< 0.1° ; operating temperature region error (temperature drift )<0.05°; long time disperse< 0.1°	°
Working temperature	-10°~ +45°C	°/°C
Storage temperature	-20°C--+80°C	
Working current	<100	uA
Working humid	<950x	%RH
<b>Display resolution</b>	0.1	°
Repetitive error	<0.07°	°
<b>ZERO temperature drift</b>	0.05 to 0.005%F.S/°C	%F.S/°C
Power	9V PP3 alkaline battery	V
Stand-by time	700 ( pls remove the battery if long time no working )	Day
Power consumption	<100	mW
Shell material	ABS Plastic	
Dimension	L160*W52.5*H21.5	mm
Weight	104	g

# SP-2- Digital Display Inclinometer (Dedicated for Measuring Level angle only)

## Product Function Introduction

**ON/OFF:** Open or close the device  
 : Volume hint function switch



**CALIBRATE:** Calibration button, If find 0 degrees inaccurate then can do calibration.

**Calibration method:** find a marble or glass platform, click Cali. button, the screen will display CALI 1, waiting for collection the first point, after 5 seconds will flash CALI 2, then Rotate the inclinometer in 180deg based on the original position, then press Cali. button, waiting for collection the second point, SUS will display after 5 seconds, and prove that the calibration was successful.

**MODE:** Measurement mode switching (Angle and Percentage two modes)

**HOLD:** Press for 1 second data hold function  
Press for three seconds luminous light function

## Product maintenance

- 1: The digital inclinometer using 9V alkaline battery, if long-term (three months) no use please remove the batteries to avoid damage due to battery leakage on digital goniometer. Battery replacement : There is a battery cover at the back of the digital display angle instrument, please follow the instructions to open the lid, then remove the old battery, can put a new battery, Please note that th front and back.
2. This product has a high-precision sensors and information processing circuit, non-drop impact or disassemble, or peril.
3. If turn on the power switch then no digital display, replace the batteries immediately.
4. Please do not press the two buttons at the same time, otherwise would undermine the internal procedures of the product.
- 5.. This product should be placed away from the children to a safe location.



※More information please visit Rion's company website: [www.rion-tech.net](http://www.rion-tech.net)



**深圳市瑞芬科技有限公司**  
CHINA SHENZHEN RION TECHNOLOGY CO.,LTD.

✓ 倾角传感器    ✓ 倾角（调平）开关    ✓ 数显水平仪    ✓ 陀螺仪  
✓ 三维电子罗盘    ✓ 加速度计    ✓ 航姿参考系统    ✓ 寻北仪

T: 0755-29657137 / 29761269    F: 0755-29123494  
W: [www.rion-tech.net](http://www.rion-tech.net)    E: [sales@rion-tech.net](mailto:sales@rion-tech.net)  
A: 中国·深圳市宝安区82区华丰科技园五期3F

*Attitude Solution Provider*  
姿态与导航解决方案专家！