

# User Manual

Item: Digital Inclinator

Model: DMI420



## > Packing list

Packing Including: One DMI410 digital inclinometer, One charge plug, One data cable and One piece of manual.

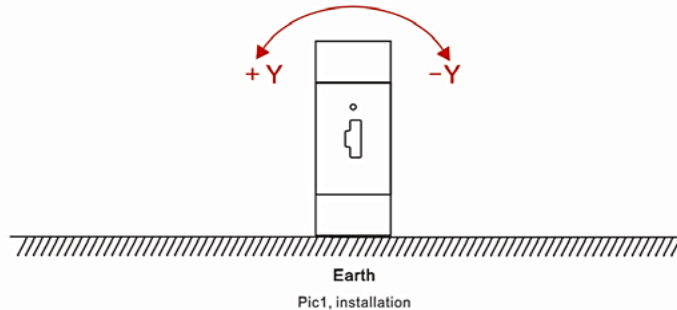
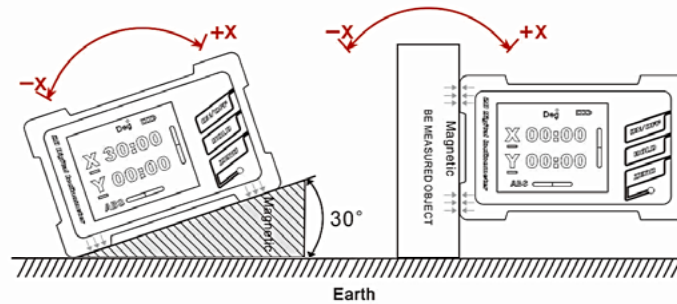
## > Brief Introduction

DMI420 was developed by RION specially for inclination measurement against horizontal plane and level and flatness measurement of equipment installation, etc. It is dual axes digital inclinometer with 180 degree measuring range, 0.01 degree resolution and high accuracy (less than 0.05 degree in full range). It could display data with unit mm/m and degree in favor of convenient and better recording. It owns built-in USB output connector making it is possible for computer to display synchronously and to store data. The built-in environment-friendly rechargeable battery could work continually for 8 hours. There are strong permanent magnets on bottom side and left side which facilitates magnetic object measurement. Small size makes it portable; hard-anodized aluminum cover makes it durable.

## > Product Feature

Parameter	DMI420
Angle measuring range	±90°
Length measuring range	±999.9mm/m
Measuring axis	Dual axis
Angle measuring accuracy	0.05° (in full range)
Angle measuring resolution	0.01
Length measuring accuracy	0.9mm/m (in full range)
Length measuring resolution	0.17mm/m
Working temp.	-10° ~ +70°C
Working humidity	≤85
Advised battery recharge time	3hours
Continuous working time	8 (±0.5) hours
Data output	5pin USB connector virtual serial port
Anti-shock	10g@11ms, Times/Axis(half sinusoid)
Anti-impact	10grms, 10~100Hz
Weight	125g
Waterproof level	Ip54
Material	Aluminum
Size	L83*W53*H19.2mm
Certificates	FCC /CE /CCC

## > 产品安装测量



Dimension: L83\*W53\*H19.2mm

Installation instruction:

- 1) Strong permanent magnets are embedded specially onto bottom and left side, sparing complicated installation, fixing and abrasion.
- 2) Make measuring axis and measured axis as parallel as possible

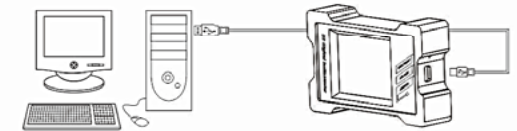
## > 产品操作介绍



Pic.2: The product function diagram

- ON/OFF: Press for 2 s to turn on/off;
- HOLD: Hold recording data;
- ZERO: Switch between absolute and relative measurement (it is in absolute measurement when screen displays ABS; relative measurement when REL)
- HOLD&ZERO: Press HOLD till small lock mark appears, then press ZERO to switch between angle measurement and length measurement.
- ON/OFF&HOLD: Press ON/OFF till screen turn black, then press HOLD to proceed precision calibration;
- ON/OFF&ZERO: Press ON/OFF till screen turn black, then press ZERO to proceed zero calibration;
- Reset button: Press it when the device crash or keys not working;
- USB Jack: For recharging, external connection and data transferring (communicate with PC by USB);
- Alarm light: It is on when recharging, it is off when recharging is completed.

## > Software interface



Pic 3: Connection diagram

Interface explain: Pic 3 is the interface on computer when DMI420 is connected. Open software, choose corresponding COM port, click OPENCOM, computer display real time data.

## > Order instruction

Item	Description
DMI410	Single axis inclinometer, measuring range ±180°/0~±999.9mm/m
DMI420	Dual axis inclinometer, measuring range ±90°/0~±999.9mm/m