

DS03

Precision Level



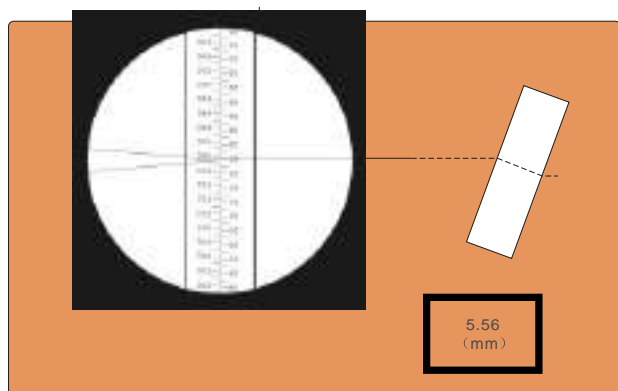
- Built-in parallel-plate micrometer
- High precise reading, 0.1mm is read directly, 0.01mm can be displayed on the screen
- Standard deviation of 1km double run: $\leq \pm 0.3\text{mm}$
- Water and dust protection: IP55
- Wide working temperature from -30°C to $+50^{\circ}\text{C}$
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DS03 Precision Level

■ Applications

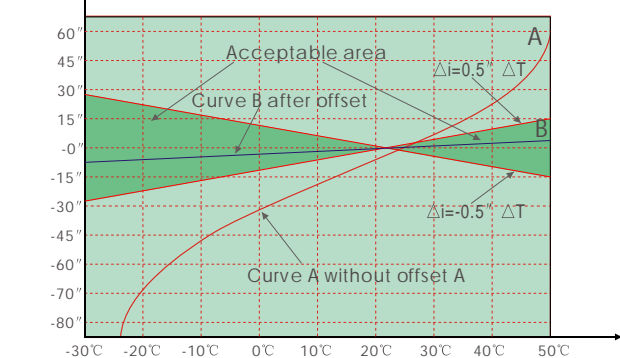
Designed for the highest accuracy in geodesy, engineering and industry. Model DS03 Automatic Level is adoptable for the first and second geodetic leveling of national networks; It can be used for engineering and deformation surveys, such as height control for engineering projects, deformation and subsidence measurements, checking bridges and structures, monitoring movements, etc. It is also used for general construction engineering and installation of large size machines.

● Reading



● Compensator

We know that compensator is made up of metal material and glass material, the temperature can affect these materials results in slight changes of compensator, then causes change of I angle. The instrument without temperature offset is always not to reach the standard of nation (GB/T10156-1997), In the diagram, the green area where between the red lines is a acceptable area when the compensator is changed along with the temperature's change (Company standard: $\pm 0.5''/^{\circ}\text{C}$). The red thick line A is a change curve for angle I of level without temperature offset. Our DS03 levels add a device of temperature offset, it can correct the change value of angle I when changing the temperature. The green thick line B is a change curve for angle I after offset, the instrument can be good work in the mal-conditions of large temperature change, especially apply to transformation observation at a long time.



Theory diagram for temperature offset of compensator

■ Technical data

DS03	
Telescope	
Image	Erect
Clear objective aperture	50mm
Magnification	42×
Field of view at 100m	2.3m
Shortest focus distance	1.6m
Multiplication factor	100
Additive constant	0
Accuracy	
Standard deviation of 1km double run	$\pm 0.3\text{mm}^*$
Automatic compensator	
Working range	15'
Setting accuracy	$\pm 0.2''$
Setting time	$\leq 2\text{s}$
Others	
Sensitivity of circular level per 2mm run	5' / 2mm
Operating Temp	-30°C ~ +50°C
Net Weight	2.5kg
Water and dust proof	IP55 (IEC60529)
Parallel plate micrometer	
Range	10mm
Interval	0.1mm
Reading	0.01mm
Power	
Battery	1900mAh Li-ion Rechargeable
Continuous operation time	>10 hours
Charging time	3 hours

* Depending on staff and levelling technique.

Related products



Illustrations, descriptions and technical specifications are not binding and may change

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Suzhou FOIF Co., Ltd.

TEL: +86 512 65224904

FAX: +86 512 65230619

Http://www.foif.com.cn

E-mail: internationalsales@foif.com.cn

ADD: 18 Tong Yuan Road, Suzhou 215006, P.R. China



Local Dealer: