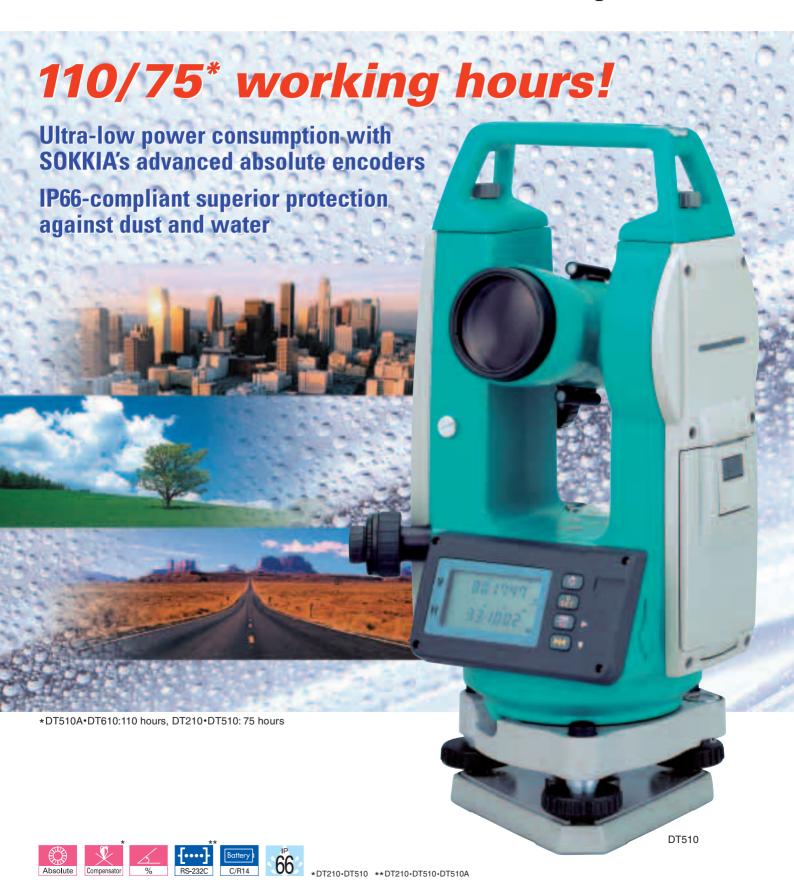


DT210·DT510 DT510A·DT610 Electronic Digital Theodolites



「210·DT510·DT510A·DT610

Variety of display modes

You can select the angle display unit that best suits you. Horizontal angle is switchable between clockwise and counterclockwise, and angle Hold and 0-set functions are also provided. Vertical angle can be set to Zenith=0, Horizontal=0, Horizontal=0±, or % of slope.

Enhanced reliability with absolute encoders

SOKKIA's market-proven advanced absolute encoders, which utilize RAB (RAndom Bi-directional) code and digital sampling technology, further enhance the reliability of angle measurement. DT210 guarantees 2" accuracy, DT510/DT510A ensure 5" accuracy and DT610-7" for both horizontal and vertical angles.

Ultra-long working hours

With SOKKIA's unique algorithm in operating absolute encoders, power consumption has been dramatically reduced. Powered by 2 standard LR14/C alkaline batteries, the DT210 and DT510 will operate for 75 hours, while the DT510A and DT610 will work for an astonishing 110 hours.

One-key start

You can start taking measurements as soon as you turn on the power, thanks to the absolute encoders. Moreover, azimuth is kept when restart the instrument after turning off the power.

Easy-to-read, easy-to-use control panels

A large LCD screen provides clear angle readings under all conditions, and thanks to simple 4-key operation no training is required. The DT210 and DT510 have control panels on both faces for added convenience.

Dual-axis compensator

The DT210/DT510 automatically compensate both Vertical and Horizontal angles by monitoring the tilt of instrument in X&Y two directions.

Audible right-angle notification

Once the zero (0) horizontal angle direction is determined, all models emit audible tones for each of the four right-angle directions. Specifically, it sounds two different tones within ±15° of 90° and stops beeping when it comes within ±1°.

Superior IP66 protection

Complying with the tough IP66 standard for resistance to dust and water, both models offer superior dependability even under harsh environmental conditions.

RS-232C port (DT210·DT510·DT510A)

Measurement data can be output to external devices via the RS-232C data port.

DT210·DT510·DT510A·DT610 Specifications

| | | DT210 | DT510 | DT510A | DT610 |
|--|-------------------------|---|------------------------------------|---------------|--------------------------------|
| Telescope | | | | | |
| Length | | 165mm(6.5in.) | | 160mm(6.3in.) | |
| Objective aperture | | 45mm(1.8in.) | | 35mm(1.4in.) | |
| Magnification | | 30x | | 26x | |
| Image | | Erect | | | |
| Resolving power | | 3" | | | 3.5" |
| Field of view | | 1°30'(26m/1,000m) | | | |
| Minimum focus | | 0.9m(3.0ft.) from telescope center | | | |
| Stadia | Multiplication constant | 100 | | | |
| | Additive constant | 0 | | | |
| Reticle illumination | | Built-in. Bright/Dim, selectable — | | | |
| Angle measurement | | Photoelectrical absolute encorder scanning, diametrical detection | | | |
| Display unit | | Degree/Gon/Mil, selectable | | | |
| Display resolutions | | 1"/5", 0.2/1mg, 0.005/0.02mil, selectable | | | 5"/10", 1/2mg, 0.02/0.05mil |
| Accuracy (ISO 17123-3:2001) | | 2"/0.6mg/ 0.01mil | 5"/1.5mg/0.025mil | | 7"/2.2mg/ 0.035mil |
| Measuring H | | Clockwise, Counterclockwise, selectable. Hold, 0-set, available | | | |
| mode V | | Zenith 0 / Horizontal 0 / Horizontal 0± / % of slope, selectable | | | |
| Automatic dual-axis compensator | | Dual-axis liquid tilt sensor Working range ±3'(±55mg) | | | |
| General | | | | | |
| Display | | LCD, 8 digits x 2 lines with backlight | | | |
| Keyboard | | 4 keys | | | |
| Control panel location | | On both faces On one face | | | ne face |
| Interface | | Asynchronous serial, RS-232C compatible, baud rate 1,200bps | | | _ |
| Self diagnostic function | | Provided | | | |
| Right angle buzzer | | Provided | | | |
| Sensitivity | Plate level | 30"/2mm* 40"/2mm 60"/2mm | | 60"/2mm | |
| of levels | Circular level | 10'/2mm | | | |
| Optical plummet | | Image:Erect, Magnification:3x, Minimum focus:0.3m(1ft.) | | | |
| Tribrach | | Detachable | | | Fixed |
| Operating temperature | | -20 to +50°C (-4 to+122°F) | | | |
| Dust and water protection | | IP66 (IEC 60529:1989) | | | |
| Instrument height | | 236mm(9.3in.) from tribrach bottom | | | |
| Size with handle | | W165 x D165 x H341mm (W6.5 x D6.5 x H13.4in.) | | | |
| Weight with handle | | 4.7kg(| 10.3lb.) | 4.5kg (9.9lb) | 4.2kg (9.3lb) |
| Power supply | | | | | |
| Battery | | LR14/C batteries x 2 | | | |
| Continuous use with alkaline batteries at 25°C(77°F) | | Approx. | Approx. 75 hours Approx. 110 hours | | |
| Automatic power cut off | | Auto-off time is selectable from 5, 10, 15, 30 minutes or none. | | | |
| | | | | | |

^{20&}quot;/2mm plate level is available as a factory option for DT210.

Standard accessories

- LR14/C alkaline batteries (x2) Lens cap Lens hood Plumb bob Tool kit
- Operator's manual Carrying case Shoulder strap

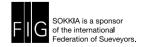
Optional accessories: • CP7 tubular compass • DE25 diagonal eyepiece

- EL6 30x eyepiece (for DT610)
- ACE1 auto-collimation eveniece
- · ACE5 auto-collimation eyepiece
- · LAP1 laser plummet nodule
- LSE1 laser sighting eyepiece • 20"/2mm plate level for DT210 (factory option)
- OF1 solar filter

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