



DT7C • DT20C

Construction Digital Theodolites

Sokkia Electronic Construction Digital Theodolites

Work Longer with Low Power Consumption and Faster with Easy-to-Use Control Panels

The DT Construction Series are electronic digital theodolites that combine ultra-low power consumption with Sokkia's advanced absolute encoders.

Variety of display modes

You can select the angle display unit that best suits you. The Horizontal angle is able to switch between clockwise and counterclockwise, and the Hold angle and 0-set functions are also provided. The Vertical angle can be set to Zenith=0, Horizontal=0, 0-90-0, 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. The DT7C ensures 7" accuracy while the DT20C ensures 20" for both horizontal and vertical angles.

Ultra-long working hours

With Sokkia's new algorithm in operating absolute encoders, power consumption has been dramatically reduced. Powered by two standard C alkaline batteries, the DT Construction Series works 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 restarting the instrument after turning the power off.

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 there is no training required.

Audible right-angle notification

Once the zero (0) horizontal angle direction is determined, the DT Construction Series emits an audible tone for each of the four right-angle directions. Specifically, it sounds two different tones within $\pm 15^\circ$ of 90° and stops beeping when it comes within $\pm 1^\circ$.

Superior IP66 protection

Complying with the tough IP66 standard for resistance to dust and water, the DT7C offers superior dependability even under harsh environmental conditions.



System Specifications

	DT7C	DT20C
Telescope		
Magnification	26x	
Field of View	1°30' (26 m/1,000 m)	
Minimum Focus	3.0 ft. (0.9 m) from telescope center	
Stadia - Multiplication Constant	100	
Angle Measurement	Photoelectric absolute encoder scanning, diametrical detection	
Display Unit	Degree/Gon/Mil, selectable	
Display Resolutions	5"/10"	10"/20"
Accuracy (ISO 17123-3:2001)	7"	20"
General		
Display	LCD, 8 digits x 2 lines with backlight	
Keyboard and Display	4 Keys on One Face	
Right Angle Beep	Two Tone High/Low Every 90°	
Sensitivity Of Levels - Plate Level	60"/2 mm	
Sensitivity Of Levels - Circular Level	10'/2 mm	
Tribrach	Fixed, Integral	
Operating Temperature	-4 to +122°F (-20 to +50°C)	
Dust and Water Protection	IP66 (IEC 60529:1989)	
Weight With Handle	9.3 lb (4.2 kg)	
Battery	2 "C" Type Alkaline Batteries for Approx. 110 Working Hours	
Automatic Power Cut Off	Auto-off time is selectable from 5, 10, 15, 30 minutes or none.	

Standard Accessories:

C Alkaline Batteries (x2), Lens Cap, Lens Hood, Plumb Bob, Tool Kit, Operator's Manual, Carrying Case and Shoulder Strap.


Optional Accessories:

CP7 Tubular Compass, DE25 Diagonal Eyepiece and EL6 30x Eyepiece (DT7C).

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