



DTx40 Series

Digital Theodolites

The Richest Lineup Ensuring Maximum Job Efficiency at Unparalleled Performance Levels

Common Features for All Models

- 2.5" – unsurpassed telescope resolving power*
- IP66 – industry's highest dust/water protection
- Absolute encoders
- Lightweight
- Standard LR6/AA batteries
- Up to 170 hours of operating time

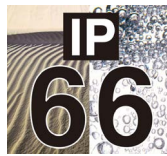
* Except for DT940(L)

Exclusive Features for the Laser Models

- 200m (660ft.) – long-range laser pointer
- 0.4mm at 10m – ultra-small beam spot

Superior Performance and Durability

The Sokkia DT series theodolites feature superior optics, mechanics, advanced absolute encoder systems, and proven automatic compensators. In addition to these essential technologies for angle measurement instruments, the Sokkia DT series boasts the industry's highest IP66 dust and water protection capability to withstand the harshest worksite environments.



Power-Saving Technology to Save Battery Costs

Four LR6/AA alkaline batteries provide extra-long operating time from 100 to 170 hours, saving costs for replacement batteries. The DT instruments operate for two to five weeks without changing batteries.*

* When used for seven hours a day, five days a week, excluding the use of laser pointers.

Laser Pointer to Increase Construction Work Efficiency*

The DT laser models feature built-in coaxial laser pointers that maximize construction work efficiency. The applications include:

- Layout / Setting-Out
- Horizontal / Vertical Alignment
- Leveling
- Grading
- Squaring

* Laser models only.



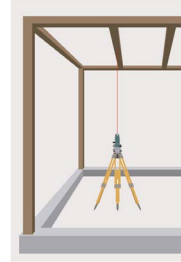
Long-Range Laser with Ultra-Small Beam Spot (Laser Models)

The laser beam reaches 200m (660ft.) under indoor or underground conditions. Even under daylight conditions, the beam spot be recognized at up to 50m (164ft.) away from the instrument. Red laser beam emitted from the objective lens is focused simultaneously with the telescope, meaning that the beam spot size becomes the minimum where you focus.

Beam Spot Size (when focused)

	Distance	5m (16ft.)	10m (33ft.)	20m (66ft.)	30m (98ft.)	50m (164ft.)
DT540L/740L	Beam Diameter (mm)	0.1x0.2	0.2x0.4	0.5x0.7	0.7x1.1	1.2x1.9
DT940L	Beam Diameter (mm)	0.1x0.2	0.3x0.4	0.6x0.8	0.8x1.2	1.4x2.0

The laser beam sizes are theoretical values. The visible laser beam size will vary with ambient brightness.



Standard Accessories

- LR6/AA batteries (x4)
- Lens cap
- Plumb bob
- Tool kit
- Operator's manual
- Carry case

DTx40 Series

DIGITAL THEODOLITES

SPECIFICATIONS

Model	Digital Theodolites				Laser Digital Theodolites		
	DT240	DT540	DT740	DT940	DT540L	DT740L	DT940L
Laser Pointer							
Type	-				Coaxial laser pointer with beam focusing capability		
Laser specifications	-				Class 2, Wavelength: 633nm, Maximum output: 0.6mW		
Laser range (Daylight / Indoor 700 lux)	-				50m (164ft.) / 200m (656ft.)		
Telescope							
Length	149mm (5.9in.)				152mm (6.0in.)		
Objective aperture	45mm (1.8in.)			40mm (1.6in.)	45mm (1.8in.)		40mm (1.6in.)
Magnification	30x			26x	30x		26x
Resolving power	2.5"			3"	2.5"		3"
Image / Field of view	Erect / 1°30' (26m/1,000m)						
Minimum focus	0.9m (3.0ft.)				1m (3.3ft.)		
Stadia	Multiplication constant: 100, Additive constant: 0						
Reticle illumination	Y	Y	Y	-	Y	Y	-
Angle measurement							
Method	Absolute rotary encoder scanning						
Detecting	Horizontal	Diametrical			Single	Diametrical	
	Vertical	Diametrical			Single	Diametrical	
Display resolutions	1" / 5" 0.2 / 1mgon		5" / 10" 1 / 2mgon	10" / 20" 2 / 5mgon	1" / 5" 0.2 / 1mgon	5" / 10" 1 / 2mgon	10" / 20" 2 / 5mgon
Accuracy	2"		5"	9"	5"	7"	9"
Circle diameter	71mm (2.8in.)						
Automatic compensation range	±3' (±55mgon)			-	±3' (±55mgon)		-
General							
Control panel layout	On both faces			On single face	On both faces		On single face
Display	LCD, 7 digits x 2 lines, backlight						
Interface	RS-232C			-	RS-232C		-
Optical plummet	Magnification: 3x, Field of view: 3", Minimum focus: 0.5m (1.64ft.)						
Sensitivity of levels	Plate level	30"/2mm	40"/2mm	60"/2mm	40"/2mm		60"/2mm
	Circular level	10"/2mm			10"/2mm		
Tribrach	Detachable			Fixed	Detachable		Fixed
Operating temperature	-20 to +50°C (-4 to +122°F)						
Dust and Water Protection	IP66 (IEC 60529:2001)						
Size (w/handle)	W188 x D149 x H313mm (W7.4 x D5.9 x H12.3in.)			W188 x D149 x H305mm (W7.4 x D5.9 x H12.0in.)	W188 x D152 x H313mm (W7.4 x D6.0 x H12.3in.)		W188 x D152 x H305mm (W7.4 x D6.0 x H12.0in.)
Weight (w/batteries)	4.1kg (9.0 lb.)			3.5kg (7.7 lb.)	4.2kg (9.3 lb.)		3.6kg (7.9 lb.)
Power supply							
Battery	LR6/AA batteries x 4						
Operating time*	Theodolite only	Approx. 100 hrs	Approx. 140 hrs	Approx. 150 hrs	Approx. 170 hrs	Approx. 140 hrs	Approx. 150 hrs
	Laser only	-			Approx. 80 hrs		
	Theodolite and laser	-			Approx. 45 hrs		

* With alkaline batteries at 20°C (68°F)

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