

**SOKKIA**

# DT50 Series

Digital Theodolite

**Brand new design that can be operated up to 250 hours**



- Up to 31 days\*2 of battery power and even longer operating time with an Li-Ion battery option
- Precised laser pointer calibrated by industry grade standards
- Built with same high quality components from high end Sokkia total stations
- Tilt sensor embedded in 5" instruments
- Rugged environmental design against dust and heavy rain

\*1 As of May, 2020 checked with Topcon as theodolite

\*2 In case of 8 hours operation per day with DT950CL

# DT50 Series

## Digital Theodolite

## SPECIFICATIONS

Model	DT-550	DT550L	DT-950G	DT-950GL	
Telescope	Length	149mm	152mm	149mm	
	Aperture	45mm			
	Magnification	30X			
	Image	Erect			
	Field of view	1°30' (26m/1,000m)			
	Resolving power	2.5"			
	Minimum focus	0.9m	1.0m	0.9m	1.0m
	Stadia ratio	100			
	Stadia constant	0			
	Angle measurement	Method	Rotary absolute encoder		
Detecting		Horizontal: 1 sides			
		Vertical: 1 sides			
Minimum Reading		1" (0.0002 gon/0.01 mil)/ 5" (0.001 gon/0.1 mil) (selectable)		10" (0.002 gon/0.05 mil)/ 20" (0.005 gon/0.1 mil) (selectable)	
Accuracy <sup>*1</sup>		5"		9"	
Display	Unit	2 sides		1 sides	
	Type	Automatic vertical compensator		—	
Tilt angle compensation	Range of compensation	±3' (±0.0555 gon)		—	
	Compensation constant	Can be changed (compensation is done at the same time with vertical angle 0 point)		—	
	Magnification	3X			
Optical plummet	Minimum focus	0.5 m			
	Sensitivity of levels	Circular level		10' /2mm	
Plate level		30" /2mm			
Temperature	Operating temperature range	-20 to 50°C (-4 to 122°F) <sup>*2</sup>			
	Storage temperature range	-30 to 60°C (-22 to 140°F) (no condensation)			
Environmental durability	Dust and water resistance	IP66 (JIS C 0920 : 2003)			
Power Supply (Standard)	Power source	4 AA alkaline batteries			
Working duration (Standard)	Theodolite only	about 230 hours		about 250 hours	
	Laser only	—	about 80 hours	—	about 80 hours
	Theodolite and laser	—	about 55 hours	—	about 55 hours
Power Supply (Option)	Power source	BDC71 (Optional accessory)			
Working duration (Option)	Theodolite only	about 300 hours		about 350 hours	
	Laser only	—	about 100 hours	—	about 100 hours
	Theodolite and laser	—	about 70 hours	—	about 70 hours
Tribrach	Type	Detachable		Fixing	
	Signal source	—	Red laser diode (633nm)	—	Red laser diode (633nm)
Laser-pointer	Maximum output	—	0.6mW	—	0.6mW
	Laser Class	—	Class 2	—	Class 2
	Laser beam range	—	50m (in daylight)	—	50m (in daylight)
	Size (with handle)	173 (D) X 181 (W) X 318 (H) mm (Display on both sides)		173 (D) X 174 (W) X 318 (H) mm (Display on one side)	
Others	Weight	4.1 kg (9.04 lb) (with batteries and battery holder)		4.0 kg (8.82 lb) (with batteries and battery holder)	

\*1: ISO 17123-3: 2001 \*2: No direct sunlight for using high temperatures of 50°C (-22 °F).

### Standard components

- Main unit • Battery holder DB-80 • Lens cap • Tool pouch • Precision screwdriver • Lens brush • Hexagonal wrench (1.3 mm/2 mm/2.5 mm) • Adjusting pin • Wiping cloth
- Quick Manual • Carrying case • Carrying strap

### Optional accessories

- Plumb bob • Model 13 Diagonal eyepiece • Battery BDC71 • Charger CDC77

# SOKKIA

- Specifications may vary by region and are subject to change without notice.  
 - Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Topcon is under license.  
 - Other trademarks and trade names are those of their respective owners.

**Your Local Authorized Dealer is:**