

**SOKKIA**

# **SET60 Series**

**Total Station**

## **Outstanding Performance and Versatile Functions**

- **Superior Waterproof and Dustproof**
- **High Accuracy & Long Measuring Range**
- **Enhanced Absolute Encoder**
- **Versatile Application Programs**
- **Dual-Axis Tilt Sensor**



# Outstanding Performance and

Clear and bright telescope  
Magnification: 30x  
Minimum focus: 1.3m

Detachable handle ergonomically  
designed for easy gripping

Instrument  
center mark



Rechargeable Battery  
(BT-G1S)

Rough but quick  
capture of prism by  
sighting collimator

Telescope grip that  
enables subtle  
adjustment

Optical plummet  
Magnification: 3x

Lock and fine  
adjustment  
tangent screw

Circular level for  
easy check

Precise leveling by  
a highly sensitive  
plate level

Data exchange with  
PC via RS-232C port



Easy viewing displays  
with 4-line, 20-character,  
with backlight and heater  
on both faces

Easy-to-use 10-key pads  
with alphabet entry on  
both faces

Integrated tribrach with  
quick lock/ release  
feature

## ■ Extra-large memory capacity for 24,000 points

SET60 Series store the measured data up to 24,000 points.



# Versatile Functions

## Superior Waterproof and Dustproof

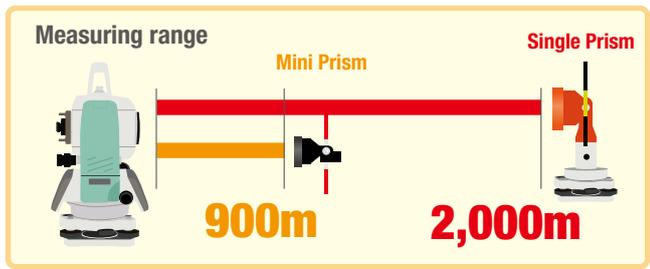
SET60 series conform to IEC Standard IP54. No worry about sudden bad weather.



The International Electrotechnical Commission standard IEC 60529 describes a system for classifying degrees of protection provided by enclosures of electrical equipment. The IP Code consists of the letters IP and two numerals. Larger numbers represent greater levels of protection.

## High Accuracy & Long Measuring Range

- High accuracy:  $\pm(2\text{mm} + 2\text{ppm} \times D)$  m.s.e.
- Long distance: 2,000m with a Single Prism.

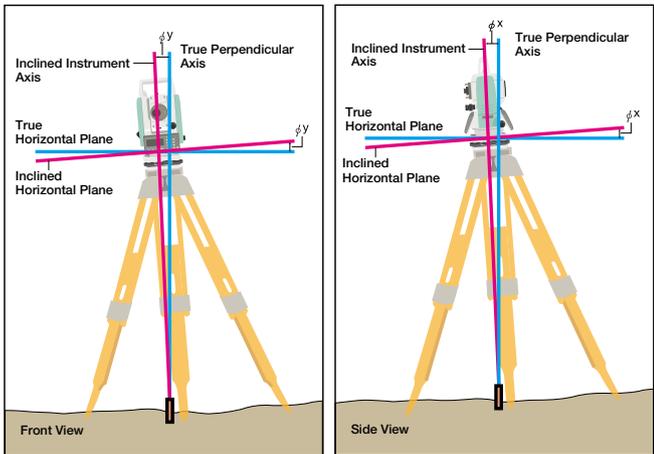


## Enhanced Absolute Encoder

SET60 Series adopted an absolute encoder system, which doesn't require 0 set and realizes stable measurement with less reading error.

## Dual-axis tilt sensor

The dual-axis tilt sensor monitors inclination of both X and Y axes, and correct horizontal and vertical angle readings automatically.

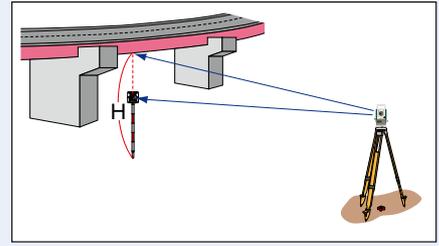


## Versatile Application Functions

On-board data collection, Survey, Layout, Road Calculation, and many more functions.

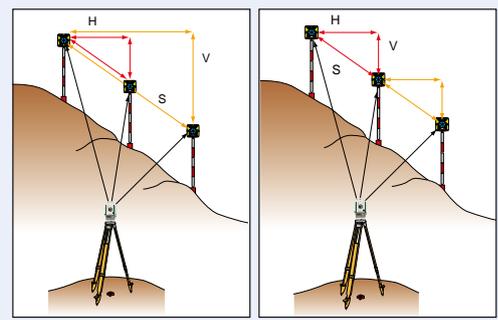
### Remote Elevation Measurement (R.E.M.)

To easily determine the height of a point where a prism cannot be placed. Take a distance to a prism placed either directly above or directly below the target point, then sight to the target point.



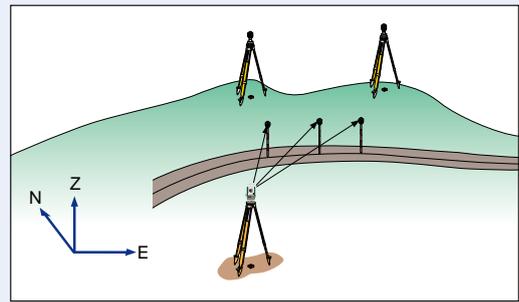
### Missing Line Measurement (M.L.M.)

To measure horizontal distance, slope distance and height difference between two prisms.



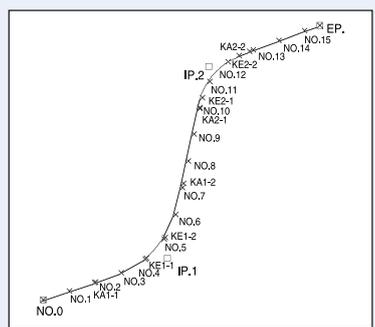
### Layout

Layout function for coordinate measurement and control stakeout and resection measurements.



### Road

Road function automatically calculates parameters of a complicated spiral curve and a long distance route simply by defining the start point, end point and curve elements.



### Total Station

Model		SET62	SET65
<b>Telescope</b>			
Magnification		30x	
Resolving power		3.0"	
Length: 150mm, Objective aperture: 45mm (50mm for EDM), Image: Erect, Field of view: 1°30' (26m/1,000m), Minimum focus: 1.3m			
<b>Angle measurement</b>			
Display resolutions (selectable)		1" / 5" (0.0002 / 0.001gon)	
Accuracy (ISO 17123-3:2001)		2"	5"
Method		Absolute rotary encoder scanning	
Detecting system	Horizontal	2 sides	
	Vertical	1 side	
Compensator		Dual-axis liquid tilt sensor, working range: ±3', Correction unit: 1"	
<b>Distance measurement</b>			
Measuring range (under average conditions <sup>*1</sup> )	Mini prism	900m (3,000ft.)	
	One prism	2,000m (6,600ft.) / Under good conditions <sup>*2</sup> : 2,300m (7,500ft.)	
	Three prisms	2,700m (8,900ft.) / Under good conditions <sup>*2</sup> : 3,100m (10,200ft.)	
Accuracy (D=measuring distance in mm)		±(2mm + 2ppm x D)m.s.e.	
Least count in measurement		Fine: 1mm (0.005ft.) / 0.2mm (0.001ft.), Coarse: 10mm (0.02ft.) / 1mm (0.005ft.) Tracking: 10mm (0.02ft.)	
Measurement time <sup>*3</sup>		Fine: 1mm: 1.2s (Initial 4s) / 0.2mm: 2.8s (Initial 5s), Coarse: 0.7s (Initial 3s) Tracking: 0.4s (Initial 3s)	
<b>Interface and Data management</b>			
Display		Graphics LCD, 160 × 64dots	
Keyboard		Alphanumeric 24keys	
Control panel location		On both faces	
Data storage	Internal memory	24,000pts.	
Interface		RS-232C	
<b>General</b>			
Levels	Circular level	10' / 2mm	
	Plate level	30" / 2mm	
Optical plummet telescope		Magnification: 3x, Focusing range: 0.5m to infinity, Image: Erect	
Dust and water protection (With BT-G1S)		IP54 (IEC 60529)	
Operating temperature		-20 to +50°C (-4 to 122°F)	
Size / Instrument height		W184 x D172 x H336mm (W7.2 x D6.8 x H13.2in.) / 176mm (6.93in.) from the tribrach dish	
Weight	Instrument with battery	4.9kg (10.8lbs)	
	Plastic carrying case	3.4kg (7.5lbs), Weight of the carrying case may be slightly different due to specific market.	
<b>Power supply</b>			
Battery (BT-G1S)	Operating time (Fine mode)	Approx. 27 hours (Single distance measurement every 30 seconds at +20°C / +68°F <sup>*4</sup> )	
		Approx. 9 hours (Continuous distance measurement at +20°C / +68°F)	
Battery charger	Recharging time	1.8 hours (+10 to +40°C)	

\*1 Average conditions: Slight haze with visibility about 20km (12.5 miles) moderate sunlight with light heat shimmer.

\*2 Good conditions: No haze with visibility about 40km (25 miles), overcast with no heat shimmer.

\*3 The initial time will be different by a condition and setting EDM off time.

\*4 On the condition EDM off time is set at 0 minutes.

### Standard Accessories

- Main unit x 1 ● Battery(BT-G1S) x 1 ● Battery charger x 1 ● Lens cap x 1 ● Tool kit with case x 1
- Plastic rain cover x 1 ● Silicon cloth x 1 ● Carrying casex 1



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