SOKKIA

NEW

Series30R
SET330R · SET530R · SET630R
Reflectorless Total Stations

State-of-the-Art Reflectorless Distance Measuring & Diverse Functions in a Compact Body

The Series30R Reflectorless Total Stations feature a narrow visible laser to obtain accurate, pinpoint measurements. Each model also has a wealth of built-in programs, and serves as a tough, reliable partner for daily surveying needs.

LASER RADIATION
DO NOT STARE INTO BEAM
MAX 0.99mW LD 635-690nm
CLASS2 LASER PRODUCT
IEC 60825-1 Am.2 2001

Reflectorless	Sheet Target	Prism	Laser Pointer	Absolute	Compensator	Repetition	%	LCD Level

Ex-Keyboard *	RS-232C	Printer-Out	Memory Card *	Memory 10,000points	Battery Li-ion	IP 66		

* SET330R · SET530R (Optional)

Missing Line	REM	Coordinate	Auto Azimuth	Resection	Offset	Offset	Offset	Set Out	Set Out Line	Area	Point Projection

Series30R Reflectorless Total Stations

● High-precision reflectorless distance measuring with a narrow visible laser

A small-diameter visible laser ensures extremely accurate measurements of the points you wish to survey, and a red visible laser beam can be used to confirm measurement points without looking into the telescope. The laser conforms to IEC Class 2, so that anyone can use it safely without special supervision. Series30R Reflectorless Total Stations provide both high precision and speed, thanks to a measurement accuracy of ±(3 + 2ppm x D)mm and 1.3-second continuous measurement (fine measurement mode). In addition, all models have a range of over 100m (320 ft.).* Each model features Sokkia's renowned optics, in which the central portion of the objective lens acts as the light emitter and the lens periphery is the receiver. Combined with the small-diameter measuring beam, this optical system gives you various advantages: accuracy even when the measured object is at an angle, accuracy with fine linear objects, and reliable measurements over fences and between trees.

* With the white side of a Kodak Gray Card.

● Compatibility with prisms for long-range measurements

Prisms can be used for long-range measurement with high accuracy of ±(2 + 2ppm x D)mm. Measure distances up to 5,000m with a single AP prism.* Reflective sheet targets may also be used.

* Range of SET330R/530R in good weather conditions. SET630R: 4,000m range.

● Sokkia's original absolute encoder

Each model is equipped with Sokkia's absolute encoders, which employ the RAB (RAndom Bi-directional) code technology first developed for the Digital Level SDL30. The absolute encoder uses advanced digital signal processing to offer high reliability and stability. Measurement can be started as soon as the total station's power is turned on.

● SF14 Wireless Keyboard (optional)

An IR wireless keyboard is available as an optional accessory for the SET330R/530R. Point names, coordinates, and other values can be entered easily and quickly. A dust- and waterproof design protects the keyboard in harsh work sites and during bad weather. (IP44 compliant)

● Superior performance in tough environments

Armed with superior protection against water and dust infiltration, the Series30R Reflectorless Total Stations are ideal for use in inclement weather and at work sites heavy with airborne dust particles, such as large-scale developments or underground construction. (IP66 compliant)

● Large-volume internal memory

Up to 10,000 data points, including known points and other information, can be recorded. They can be stored in 10 different job files, so that job data from different work sites can be handled simultaneously.

● Memory Card Unit (optional)

This optional unit for the SET330R/530R enables you to store data on a CompactFlash card.

Memory card not included. Memory cards of up to 64MB can be used.

● Standard accessories

BDC46A rechargeable battery (SET330R/530R: 2 pcs., SET630R: 1 pc.), CDC61/62/64 quick charger, CP7 tubular compass, lens hood, lens cap, plumb bob, tool kit, operator's manual, carrying case and shoulder strap.

Series30R Specifications

		SET330R	SET530R	SET630R
Telescope		Fully transiting, Coaxial sighting and distance measuring optics.		
Magnification		30 x		26 x
Resolving power		3"		3.5"
Field of view		1°30' (26 m/1,000 m)		
Minimum focus		1.3m (4.3 ft.)		
Angle measurement		Photoelectrical absolute rotary encoder scanning. Both circles adopt diametrical detection.		
Unit	H&V	Degree / Gon / Mil, selectable		
Display resolutions	H&V	1" / 5", 0.2mgon / 1mgon, 0.005 mil / 0.02 mil, selectable		
Accuracy (ISO12857-2 1997)	H&V	3" (1 mgon)	5" (1.5 mgon)	6" (1.9 mgon)
Measurement mode	H	Clockwise / Counterclockwise, 0 set, Hold, angle setting, repetition		
	V	Zenith 0°, Horizontal 0°, Horizontal 0° ±90°, slope in %		
Automatic dual-axis compensator		Range : ±3' (±55 mgon), " out-of-range " warning display provided		
Distance measurement		Modulated near infrared LASER, Laser diode,		
		Coaxial EDM transmitting and receiving optics (IEC Class 2 ,FDA Class II LASER)		
Maximum measuring range		A: Average conditions: slight haze, visibility about 20 km (12 miles), sunny periods, weak scintillation.		
		G: Good conditions: no haze, visibility about 40 km (25 miles), overcast, no scintillation.		
	Reflectorless*1 A	100 m (320 ft.) or more		100 m (320 ft.) or more
	With reflective sheet A	500 m (1,640 ft.)		500m (1,640 ft.)
	With one AP01 prism G	5,000 m (16,000 ft.)		4,000 m (13,000 ft.)
Unit		Meters / Feet / Inch, selectable		
Display resolution		0.001 m (0.01 ft. / 1/8 inch)		
Accuracy	Reflectorless*1	± (3 + 2ppm x D) mm		
(D=measuring distance; unit: mm)	With reflective sheet	± (3 + 2ppm x D) mm		
	With AP prism	± (2 + 2ppm x D) mm		
Measuring time		Every 1.3 s (initial meas. 2.6 s)		
Measurement mode		Fine meas. (single/repeat/average) / Tracking		
Laser		Wavelength: 635 ~ 690 nm, Max. output:0.99 mW		

		SET330R	SET530R	SET630R
Data storage and transfer				
Data storage	Internal memory	About 10,000 points		
	Memory card unit *2	Optional		—
Scale factor setting		0.5 to 2.0		
Interface		Asynchronous serial, RS-232C compatible, baud rate : 1,200 to 38,400 bps		
Printer output		Centronics compatible (w/ optional DOC46 printer cable)		
General				
Laser-pointer function		ON (automatic off 5 minutes after operation) / OFF, selectable		
Display	Type	Alphanumeric/graphic dot matrix LCD (192 x 80 dots)		
Keyboard (15 keys)		On both faces		On one face
Wireless keyboard		Optional		—
Sensitivity of levels	Plate level	30" / 2 mm		40" / 2 mm
	Circular level	10' / 2 mm		
	Graphic LCD level	3' / outer circle		
Optical plummet		Image: Erect, Magnification: 3x, Minimum focus: 0.3 m (0.98 ft.)		
Water and dust resistance		Conformity to class IP66 (IEC60529)		
Operating temperature		-20° C to +50° C (-4° F to +122° F)		
Tilting / Trunnion axis height		236 mm (9.3 in.) from tribrach bottom, 193 mm (7.6 in.) from tribrach dish.		
Size with handle and battery		W 165 x D 170 x H 341 mm (W 6.5 x D 6.7 x H 13.5 in.)		
Weight with handle and battery		5.3 kg (11.7 lb.)		
Power supply		Operating voltage : 7.2 V DC		
BDC46A detachable battery		Li-Ion rechargeable battery		
	Continuous use*3	About 5 hours (About 600 points)		
	Recharging time	Less than 2 hours with CDC61/62/64		
Battery level display		4 steps with warning message.		
Automatic power cut-off		30 / 15 / 10 / 5 minutes after operation / OFF, selectable		
Resume function		ON / OFF selectable (backed up for about 1 week)		

*1 With the white side of a KODAK Gray Card (reflectivity 90%). Range and/or accuracy may be varied according to measurement objects, observation situations and environmental conditions.
*2 Flash memory card not included. The 8MB compact flash memory card provides approximately 72,000 points of data storage.
*3 Angle and distance measurement with 30-second interval at 25°C (77°F).

FIG Sokkia is a sponsor of the International Federation of Surveyors

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