

The SOKKIA logo is displayed in white, bold, uppercase letters against a dark blue background. The background of the entire page is a low-angle photograph of a steel truss structure, likely a bridge or tower, with several workers visible on the beams. The sky is a deep blue.

SOKKIA

general catalog 2007





general catalog 2007

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surveying

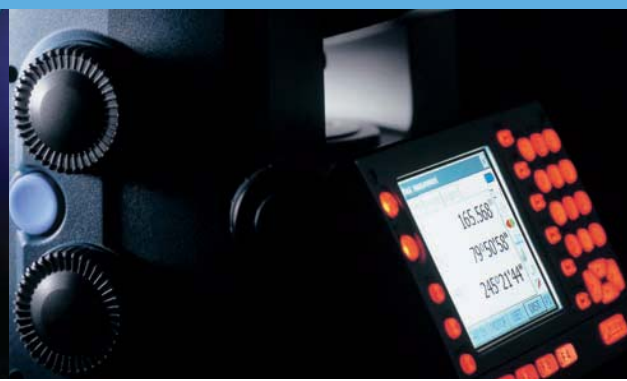
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introduction



With the 2007 edition of the General Catalog, Sokkia Europe gives you an overview of the actual range of accurate and well recognized products. During 2007 we look back at 25 years of history in the European surveying and construction business. In those 25 years we have build a strong distribution network throughout Europe and the Russian Federation. Traditional product lines in the surveying business were completed with specialist instruments for the industrial market and dedicated construction equipment. For the construction market we developed the Triax laser line and for the industrial market we found a professional partner in GLM, a company with a recognized track record in industrial measuring solutions. Sokkia's range of products exists of 3 divisions, each being represented by a different colour; blue for surveying, red for

industrial and yellow for construction. We recognize that in line with other industries integration of technology is running fast and gives you more flexibility in your day to day job. Buying a Sokkia instrument gives you this flexibility combined with proven quality. It gives you a good return on investment. We believe that Sokkia equipment has the lowest cost of ownership in the business. To support this Sokkia Europe recently introduced a 3 year warranty policy.

A handwritten signature in blue ink, appearing to read 'Jan van der Weijden'.

Jan van der Weijden
Managing Director

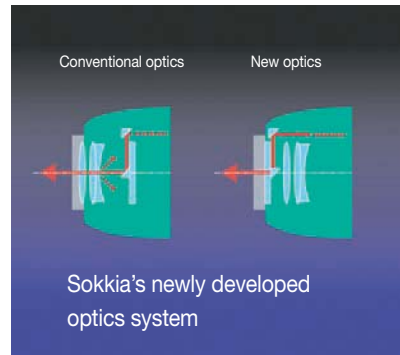




surveying

Reflectorless Technology

Innovative RED-tech EDM Makes
Reflectorless Distance Measurement
More Powerful Than Ever



RED-tech EDMs are high-performance phase-comparison measuring systems that deliver unprecedented distance measurement possibilities. RED-tech EDM easily and efficiently handles measurement of a variety of objects under a wide range of conditions difficult or impossible for other EDMs.

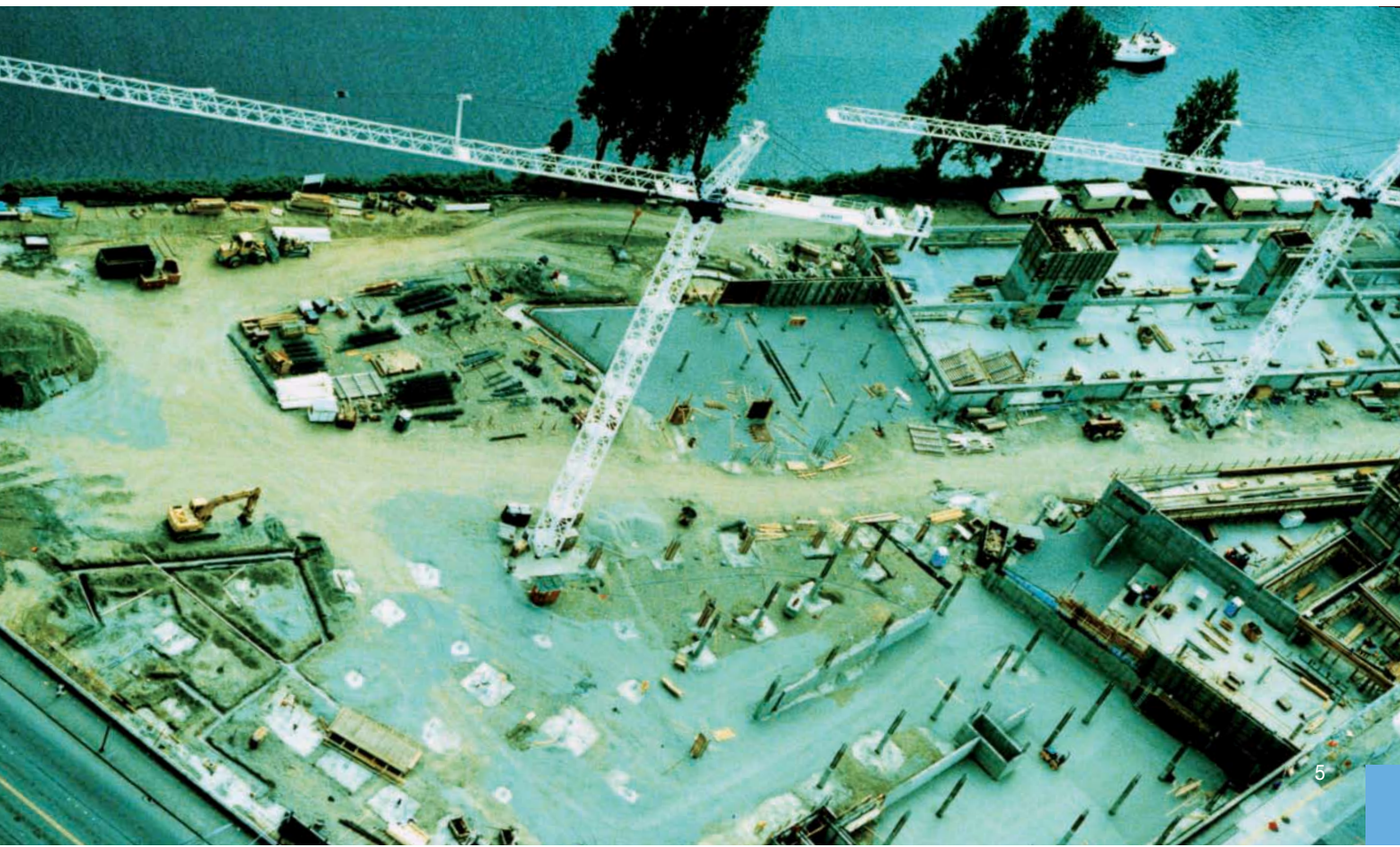
Survey-grade accuracy from 30cm/1ft. to 500m/1,640ft.

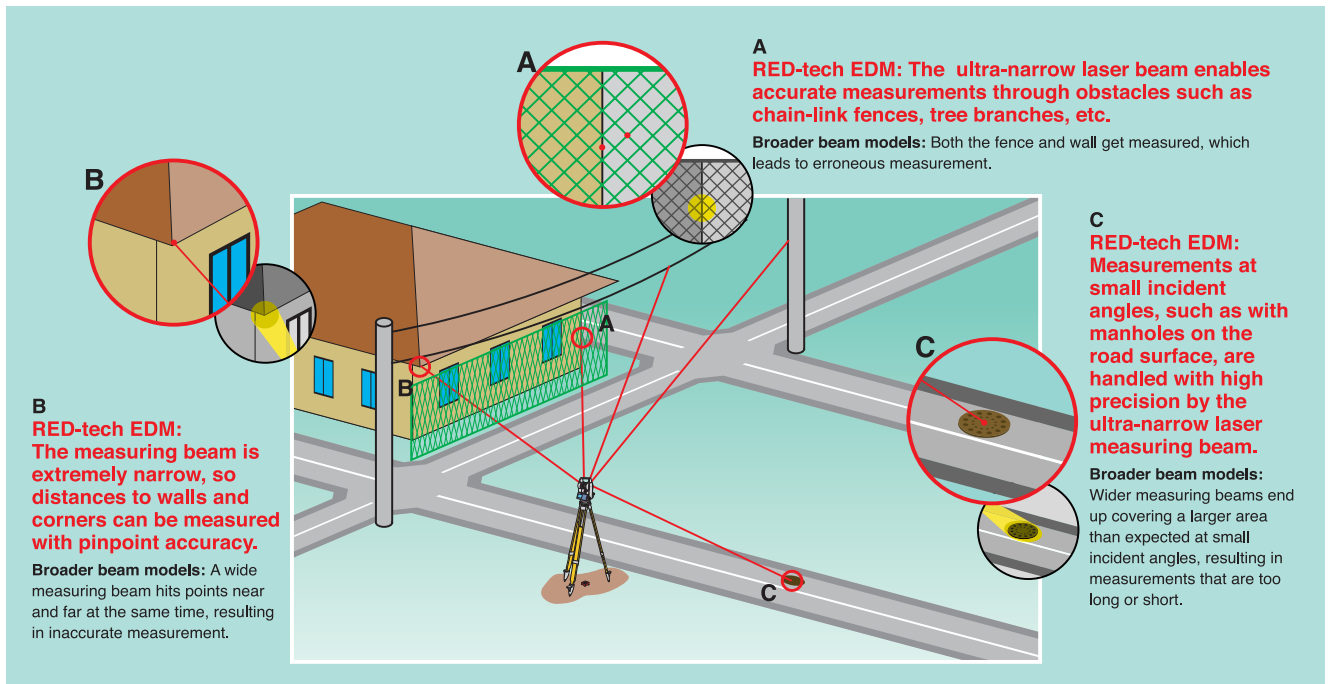
RED-tech reflectorless EDMs are acclaimed for high-precision pinpoint accuracy and the flexibility to measure from distances as close as 30cm (1ft.). SRX, Sokkia's new robotic total station features RED-tech EX, the latest innovative reflectorless measurement technology. RED-tech EX EDMs perform fast and stable

measurements with an extended measurement range of 500m (1,640ft.). RED-tech II EDMs have a measurement range of 350m (1,140ft.) and are available in Series030R, Series130R, Series30RK and Series30R total stations.

Groundbreaking technology in reflectorless phase-comparison distance measurement

RED-tech EDM uses phase-comparison technology, which provides notable advantages in accuracy compared with EDMs using pulse measurement methods. Combined with Sokkia's leading edge digital signal processing technology and refined optics, superbly accurate reflectorless measurement over an ultra-wide range from 30cm (1ft.) up to 500m (1,640ft.) is now a reality.





- RED-tech EDMs simultaneously sample measuring signals in three different frequencies and calculate distances using an advanced digital signal processing technique. They ensure that the calculation method best suited to the condition of the measuring signals is selected, resulting in unprecedented accuracy and speed.
- With improved optics that provide the ideal light path for emitting and receiving light, the new design dramatically increases reliability by emitting the laser beam from in front of the objective lens to eliminate errors caused by internal reflection. Its optical components ensure that only the necessary returning light is directed to the receiver for faster, more efficient measurement.

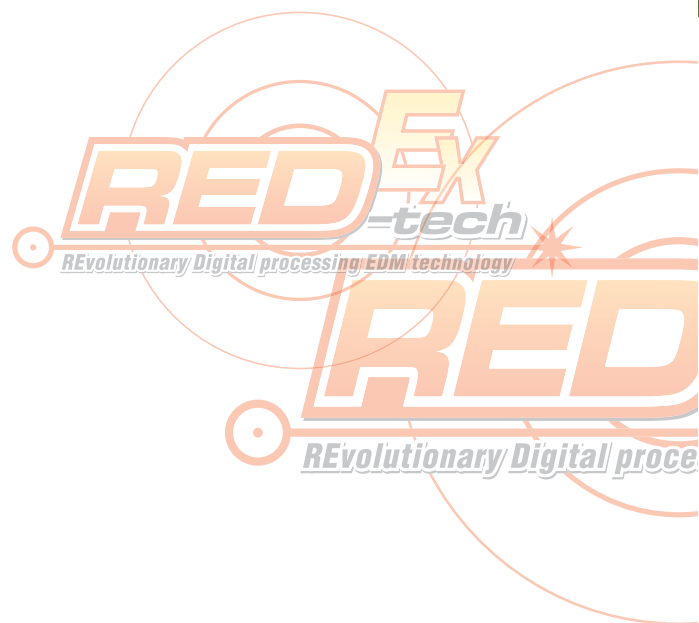
Multi-functional, high-precision optics

Sokkia has further refined its traditional optics system, which now emits measuring light from in front of the objective lens center and receives the returning light along its periphery.

- Sokkia's high-precision optical technology makes it possible for its ultra-narrow visible laser beam to be emitted along the same axis as the telescope's sighting axis. With its one light source, with its one optics system, its multi-functional design enables accurate pointing using a distinct laser spot, pinpoint reflectorless measurement, as well as long-range distance measurement using prisms or reflective sheet targets.
- The new telescope provides an extremely bright and sharp sight, and its compact size makes sighting easier than ever.

Ultra-narrow visible laser for pinpoint accuracy

RED-tech EDMs employ an ultra-narrow visible laser to obtain measurements with pinpoint accuracy. Fine objects, as well as the corners of walls and other structures, can be measured precisely. Accurate measurements can be made through obstacles such as chain-link fences and tree branches.



Total Stations

SRX

Robotic Total Stations

The new SRX is a user-friendly and highly reliable robotic total station. It eliminates the problems of previous remote control systems, which are often time-consuming to use. The SRX features superior reflectorless distance measurement due to new RED-Tech EX technology, a highly reliable remote control, auto pointing on prisms and sheets, a unique function for self calibration, Bluetooth wireless technology and convenient data import/export.

- Superior reflectorless distance measurement
- Highly reliable remote control
- Saving time and energy with unique on-demand search technology
- Auto pointing both on prisms and sheets
- Low maintenance due to unique on-board self calibration technology
- Telemetry by Bluetooth® wireless technology
- Convenient data import/export using all industry standards



SRX



SRX SPECIFICATIONS

	SRX1	SRX2	SRX3	SRX5
Auto-tracking ^{*1}	Pulse laser transmitter and CCD detector with co-axial optics			
Auto-pointing	Pulse laser transmitter and CCD detector with co-axial optics			
Range	With ATP1 prism With AP01 prism	2 to 600m (6.5 to 1,960ft.) 2 to 1,000m (6.5 to 3,280ft.)		
Angle measurement	Absolute encoder scanning. Both circles adopt diametrical detection.			
Display resolutions (selectable)	0.5" / 1", 0.1 / 0.2mg, 0.002 / 0.005mil		1" / 5", 0.2 / 1mg, 0.005 / 0.02mil	
Accuracy (ISO17123-3)	1" / 0.3mg / 0.005mil	2" / 0.6mg / 0.01mil	3" / 1mg / 0.015mil	5" / 1.5mil / 0.025mil
Automatic dual-axis compensator	Dual-axis liquid tilt sensor, Working range: ±4' (±74mg), out-of-range warning display and audio beep provided			
Distance measurement	Modulated Laser, phase comparison method with red laser diode			
Measuring range ^{*2}	Reflectorless ^{*3}	0.3 to 500m (1 to 1,640ft.) (White side, 90% reflective)		
(slope distance)	(With Kodak Gray Card)	0.3 to 250m (1 to 820ft.) (Gray side, 18% reflective)		
	With RS90N-K Reflective sheet target	1.3 to 500m (4.3 to 1,640ft.)		
	With ATP1 prism	1.3 to 1,000m (4.3 to 3,280ft.)		
	With 1AP prism	1.3 to 5,000m (4.3 to 16,400ft.), Under good conditions ^{*4} : 1.3 to 6,000m (4.3 to 19,680ft.)		
Accuracy	Reflectorless ^{*3&5}	0.3 to 200m (1 to 650ft.): (3+2ppm x D)mm		
(ISO 17123-4)	(Fine mode)	Over 200 to 350m (over 650 to 1,140ft.): (5+10ppm x D)mm		
(D=measuring distance, unit:mm)		Over 350 to 500m (over 1,140 to 1,640ft.): (10+10ppm X D)mm		
	With prism	(1.5+2ppm x D)mm ^{*6}	(2+2ppm x D)mm	
	With reflective sheet	(3+2ppm x D)mm		

^{*1} Available for Auto-tracking model only. ^{*2} Average conditions: Slight haze, visibility about 20km (12 miles), sunny periods, weak scintillation.

^{*3} Reflectorless range/accuracy may vary according to measuring objects, observation situations and environmental conditions.

^{*4} Good conditions: No haze, visibility about 40km (25 miles), overcast, no scintillation. ^{*5} With Kodak Gray Card White Side (90% reflective).

^{*6} With CPS12 high precision glass prism, more than 4m.

Total Stations

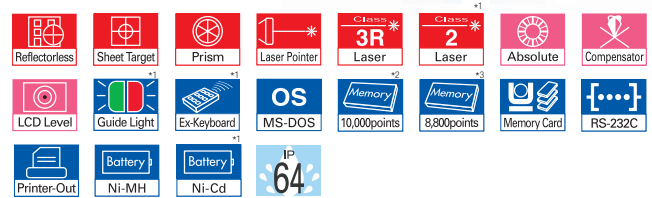
Series 030R

Reflectorless Total Stations with Integrated Data Collectors



The Series030R Reflectorless Total Stations are high-precision models featuring comprehensive data collection software "Expert".

- Expert software provides an integrated solution to a wide variety of data collection and processing tasks, including Topography, Set collection, Traverse adjustment, Building face survey, Set out line, Taping from baseline, Set out arc, Transformation, Set out road surface, and more.
- Sokkia-developed absolute encoders feature the RAB (RANdom Bidirectional) code technology which provides high precision and reliability for angle measurement.
- A keyboard with 26 alphanumeric keys is equipped on both faces of instrument.
- The password function prevents unauthorized use of the instrument.
- CompactFlash card drive is incorporated as standard.
- SF14 wireless keyboard is available as an optional accessory.
- GDL2 guide light unit is available as a factory option.



*1 OPTION *2 WITH SDR2X FORMAT *3 WITH SDR33 FORMAT

Sokkia Field-info Xpress



The Series030R total station can send surveyed data to a specific e-mail address or FTP server using a mobile phone. It can also receive coordinate data for setting-out from an office computer or FTP server.



SERIES030R SPECIFICATIONS

	SET1030R3	SET2030R3	SET3030R3	SET1030R*1	SET2030R*1	SET3030R*1
Telescope Magnification	30x					
Angle Measurement	Photoelectrical absolute encoder scanning. Both circles adopt diametrical detection.					
Display Resolutions (selectable)	0.5"/1", 0.1 / 0.2mg, 0.002 / 0.005mil		1"/5", 0.2 / 1mg, 0.005 / 0.02mil	0.5"/1", 0.1 / 0.2mg, 0.002 / 0.005mil		1"/5", 0.2 / 1mg, 0.005 / 0.02mil
Accuracy (ISO 17123-3:2001)	1" / 0.3mg	2" / 0.6mg	3" / 1mg	1" / 0.3mg	2" / 0.6mg	3" / 1mg
Compensator	Automatic dual-axis compensator with working range 3' (55mg)					
Distance Measurement	Modulated laser, phase comparison method with red laser diode, coaxial optics					
Measuring Range	Reflectorless*2	0.3 to 350m (1 to 1,140ft.)		0.3 to 200m (1 to 650ft.)		
	Prism/sheet*3	One AP01 Prism: 5,000m (16,400ft.), Reflective Sheet RS90N-K: 500m (1,640ft.)				
Accuracy	Reflectorless*2	0.3 to 200m (1 to 650ft.): (3 + 2ppm x D)mm Over 200 to 350m (over 650 to 1,140ft.): (5 + 10ppm x D)mm		0.3 to 100m (1 to 320ft.): (3 + 2ppm x D)mm Over 100 to 200m (over 320 to 650ft.): (5 + 10ppm x D)mm		
	Prism/sheet	Glass Prism: (2 + 2ppm x D)mm, Reflective Sheet: (3 + 2ppm x D)mm				
Data Storage	Internal Memory	Approx. 10,000 points with SDR2x format, approx. 8,800 points with SDR33 format				
	Memory Card Drive	CF card drive incorporated as a standard				
Weight w/handle and battery						5.9kg (12.9lb.)

*1 The SET1030R/2030R/3030R, Class 2 laser models, are factory options.

*2 With the white side of a KODAK Gray Card (90% reflective).

*3 Under good condition s: no haze, visibility about 40km (25miles), overcast, no scintillation.

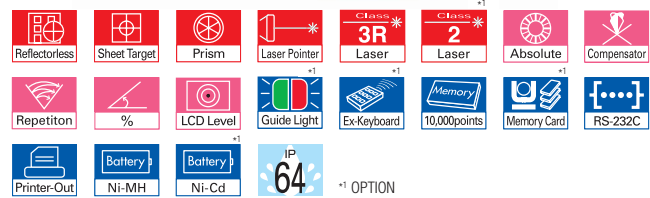
Total Stations

Series 130R

Reflectorless Total Stations

The Series130R reflectorless total stations deliver virtually the same distance and angle measurement capabilities as the Series030R. Instead of Expert software, the most frequently used, popular data collection programs are pre-installed in the Series130R. When combined with Sokkia's SDR series data collectors, a full range of programs will be at your command via a two-way communications function.

- Sokkia-developed absolute encoders feature the RAB (RANdom Bi-directional) code technology which provides high precision and reliability for angle measurement.
- The password function prevents unauthorized use of the instrument.
- CompactFlash card unit is available as a factory option.
- SF14 wireless keyboard is available as an optional accessory.
- GDL2 guide light unit is available as a factory option.



SERIES130R SPECIFICATIONS

		SET1130R3	SET2130R3	SET3130R3	SET4130R3	SET1130R* ¹	SET2130R* ¹	SET3130R* ¹	SET4130R* ¹
Telescope	Magnification	30x							
Angle Measurement		Photoelectrical absolute rotary encoder scanning.							
Display Resolutions (selectable)		0.5"/1", 0.1 / 0.2mg, 0.002 / 0.005mil		1"/5", 0.2 / 1mg, 0.005 / 0.02mil		0.5"/1", 0.1 / 0.2mg, 0.002 / 0.005mil		1"/5", 0.2 / 1mg, 0.005 / 0.02mil	
Accuracy (ISO 12857-3:2001)		1" / 0.3mg	2" / 0.6mg	3" / 1mg	5" / 1.5mg	1" / 0.3mg	2" / 0.6mg	3" / 1mg	5" / 1.5mg
Compensator		Automatic dual-axis compensator with working range 3' (55mg)							
Distance Measurement		Modulated laser, phase comparison method with red laser diode, coaxial optics							
Maximum Measuring range	Reflectorless* ²	0.3 to 350m (1 to 1,140ft.)				0.3 to 200m (1 to 650ft.)			
	Prism/sheet* ³	One AP01 Prism:5,000m (16,400ft.), Reflective Sheet RS90N-K:500m (1,640ft.)							
Accuracy	Reflectorless* ²	0.3 to 200m (1 to 650ft.): (3 + 2ppm x D)mm Over 200 to 350m (over 650 to 1,140ft.): (5 + 10ppm x D)mm				0.3 to 100m (1 to 320ft.): (3 + 2ppm x D)mm Over 100 to 200m (over 320 to 650ft.): (5 + 10ppm x D)mm			
	Prism/sheet	Glass Prism: (2 + 2ppm x D)mm, Reflective Sheet: (3 + 2ppm x D)mm							
Data Storage	Internal Memory	Approx. 10,000 points with max. 10 job files							
	Memory Card Unit	CF card unit available as an option							
Weight w/handle and battery		5.8kg (12.7lb.)							

*¹ The SET1130R/2130R/3130R/4130R, Class 2 laser models, are factory options.

*² With the white side of a KODAK Gray Card (90% reflective).

*³ Under good condition s: no haze, visibility about 40km (25miles), overcast, no scintillation.



Total Station Options

SF14 Wireless Keyboard

For all the models of Series030R, Series130R, Series30RK, Series30R, Series10K and Series10

(except for the SET630R, SET630RK, SET610 & SET610K)

The ergonomically designed infrared wireless keyboard provides powerful operation in the palm of your hand. A total of 37 keys enable quick and easy entry of JOB names, point numbers, notes, codes, and coordinates, increasing the work efficiency of data collection and setting-out work.



SF14



CompactFlash Card Unit

For all the models of Series130R, Series30R, Series30RK, Series10 and Series10K

(except for the SET630R, SET630RK, SET610 & SET610K)

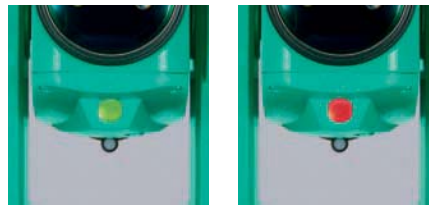
The memory capacity becomes virtually infinite with the use of commercially available CompactFlash memory cards (A card drive is incorporated as standard to the Series030R).



GDL1 Guide Light Unit

GDL1 for Green Series
GDL2 for Grey Series

The Guide Light Units GDL1 and GDL2 boost efficiency in setting-out jobs. When you see green and red flashing back and forth simultaneously, you are on the telescope sighting direction. The GDL1 and GDL2 have a range of up to 150m (490ft.). A special flashing pattern is also selectable to assist users with color weakness.



GDL1



GDL2

All options on this page are available for both total stations from the surveying range as the construction range.

Reflective Prisms

Prism Sets with WA type tribrach

For Total Stations



APS11



APS12



APS31



APS33



APS32



APS34

For Telescope-mount EDM



APS14

For Yoke-mount EDM



APS13



APS35



APS36

Range Pole Prisms

For Total Stations



APS11P



APS12P



APS13P

For Telescope-mount EDM



APS13P

Mini Prisms



OR1PA+PUS2



CPS11P



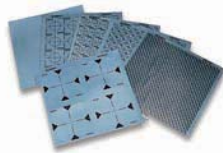
PR1PF+AP7

Reflective Sheet Targets and Staffs

Reflective Sheet Targets

RS Series Reflective Sheets (self-adhesive type)

Model	Size (mm)	Model	Size (mm)
RS10N-K	10 x 10	RS50N-K	50 x 50
RS15N-K	15 x 15	RS70N-K	70 x 70
RS20N-K	20 x 20	RS90N-K	90 x 90
RS30N-K	30 x 30	RS00-K	230 x 230



RT50S-K Pin-Pole Reflective Target

A 50 x 50mm, fully rotatable reflective target, to be used with pin-poles. TP300 Twin Poles and a tribrach adaptor are available as options. The target slides up and down within 30cm range along the TP300.

2RT500-K Two-Point Target

Two reflective targets attached on a narrow pole, for 2-distance offset measurements of hidden points with all the Sokkia total stations.

RT90C-K Detachable Rotary Target

A 90 x 90mm, fully rotatable reflective target, to be used on tribrachs or prism poles.

RT50AP-K Reflective Sheet Target for AP Prism Mount

A 50 x 50mm sheet target to be used with AP11 Single Tilting Mount of AP Series glass prism

Reflective Staffs

BRS55 Aluminum RAB-Code Reflective Staffs

The BRS55 can be used for distance and height measurement with total stations, as well as for height measurement using the SDL30 digital level. Front: metric graduation reflective surface Reverse: RAB-Code for the SDL30 digital level 5.0m (16.7ft.), 5 sections, 1.95kg (4.3 lb.), metric



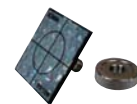
RT50S-K + TP300



2RT500-K



RT90C-K



RT50AP-K

GPS Systems

GSR2700 ISX

Fully Integrated GNSS System

The GSR2700 ISX system includes a high-precision triple-frequency GNSS receiver, antenna, memory, batteries, and an internal data link for RTK surveying - plus Bluetooth® wireless technology for completely cable free surveying. The receiver also offers voice messages for audible status notification in the field – an industry first! Combined with revolutionary new SDR+ Data Collection Software, the most flexible software of its kind on the market, you'll have total freedom to survey the way you want to.



GSR2700ISX

GSR2700 ISX SPECIFICATIONS

Position accuracy	RTK	10.0 mm + 1 ppm (horizontal); 20.0 mm + 1 ppm (vertical)
	Static	3.0 mm + 0.5 ppm (horizontal); 10.0 mm + 1 ppm (vertical)
Channels		72 Universal Channels 14 x L1 and 14 x L2 and 6 x L5 GPS 12 x L1 and 12 x L2 GLONASS 2 SBAS
Cold start / Signal reacquisition		50 sec. / 0.5 sec. L1, 1.0 sec. L2
Dimensions		22.5 x 10.5 cm (8.9 x 4.1 in)
Water resistance		Complete protection against dust ingress. Protected against immersion up to 1.0 m (3.3 ft)
Shock		2.0 m (6.6 ft.) pole drop

Stratus

Fully Integrated GPS System

SOKKIA's L1 Integrated System is a fully-integrated, 12 channel GPS receiver capable of both static and kinematic surveys. By integrating the receiver, antenna, memory and batteries in one lightweight package, the system offers cable free operation. The rugged, sealed enclosure ensures durability in the harshest of environments.



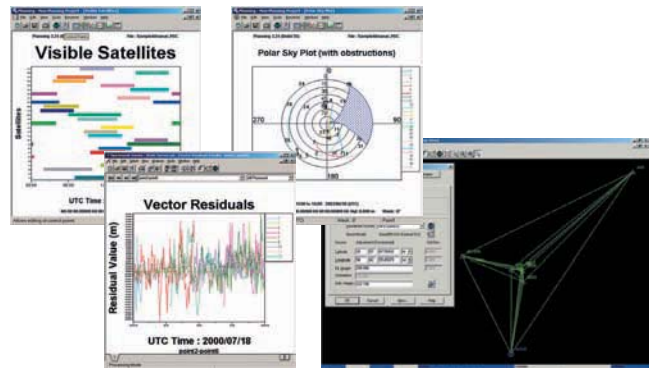
STRATUS

STRATUS SPECIFICATIONS

Position Accuracy	Static	5 mm + 1 ppm (horizontal); 10 mm + 2 ppm (vertical)
	Kinematic, Stop and go	12 mm + 2.5 ppm (horizontal); 15 mm + 2.5 ppm (vertical)
Channels		L1 x 12 with code and carrier
Dimensions		155 x 125 mm (6 x 5 in)
Water Resistance		IPX4
Shock		2.2 m pole / 1 m stand-alone

Spectrum® Survey Suite

Post-processing, Adjustment and Planning Software Spectrum® Survey Suite is a GPS post-processing software package with processing capabilities for single- and dual-frequency GPS data (code & carrier). Spectrum network adjustment performs least squares adjustments on your network baselines to evenly distribute inherent error within survey data. Together, Spectrum® Survey and network adjustment enable you to complete your survey and GPS work in record time.



SCREENSHOTS FROM SPECTRUM® SURVEY SUITE



GPS Systems

GSR2600

Modular L1/L2 GPS System

The L1/L2 High-Accuracy GPS System is a compact, dual-frequency receiver capable of real-time kinematic (RTK) and post-processing jobs.

The system can be used to achieve centimeter-level accuracy for RTK tasks and millimeter-level accuracy for postprocessing jobs. These features, combined with Pulse Aperture Correlator (PAC) Technology and Pinwheel™ Technology (patent pending for both), provide comprehensive tracking capability with superior multipath mitigation.



GSR2600

GSR2600 SPECIFICATIONS

Position Accuracy	RTK	10 mm + 1 ppm (horizontal); 20 mm + 1 ppm (vertical)
	Static	3 mm + 0.5 ppm (horizontal); 10 mm + 1 ppm (vertical)
Channels	L1 x 12 and L2 x 12 with full code and carrier	
Cold Start/Signal Reacquisition	50 sec / 0.5 sec. L1, 1 sec. L2	
Dimensions	Receiver: 150 x 183 x 70 mm (6.0 x 7.2 x 2.8 in)	
Water Resistance	IPX7	
Shock	1 m drop	

GSR2650 LB

Versatile L1/L2 GPS System

As the first autonomous system for GIS/Mapping and Surveying with decimeter-level capabilities, this system sets a new standard in GPS solutions. The L1/L2 GPS L-Band System utilizes OmniSTAR HP, OmniSTAR VBS and WAAS corrections and allows you to switch from GIS/Mapping to high-accuracy surveying applications within one system. It works with most RTK surveying software, such as SOKKIA's SDR Level 5 and GIS/Mapping packages, such as IMap. It is ideal for a variety of applications, including topographic mapping, roading and construction stake out.



GSR2650 LB

GSR2650 LB SPECIFICATIONS

Position Accuracy	WAAS L1	1.2 m CEP
	L1 / L2	0.8m CEP
OmniSTAR	VBS	1.0 m CEP
	HP	10 cm CEP
RTK	Static, Rapid Static	10 mm + 1 ppm horizontal ; 20 mm + 1 ppm vertical
		5 mm + 1 ppm horizontal ; 10 mm + 1 ppm vertical
Channels	12 x L1 and 12 x L2 with full code and carrier	
Cold Start/Signal Reacquisition	50 sec/0.5 sec. L1, 1 sec. L2	
Dimensions	154 x 180 x 71 mm (6.1 x 7.1 x 2.8 in)	
Water Resistance	IPX4, IPX7	
Shock	1 m drop	

•PAC™ Technology

Pulse Aperture Correlation (PAC) technology implements the latest digital signal processing techniques to provide superior tracking capability in the presence of multipath. PAC™ technology works by effectively doubling the pseudo range accuracy of the Narrow Correlator tracking technology and dramatically increases multipath mitigation characteristics by up to a factor of 8.

•Pinwheel™ Technology

Pinwheel™ technology is designed to operate at the GPS L1 and L2 frequencies. Optimized to receive right-hand-circularly-polarized signals, its radiation pattern has been shaped to provide a uniform amplitude and phase pattern to reduce signal strength arriving near the horizon.



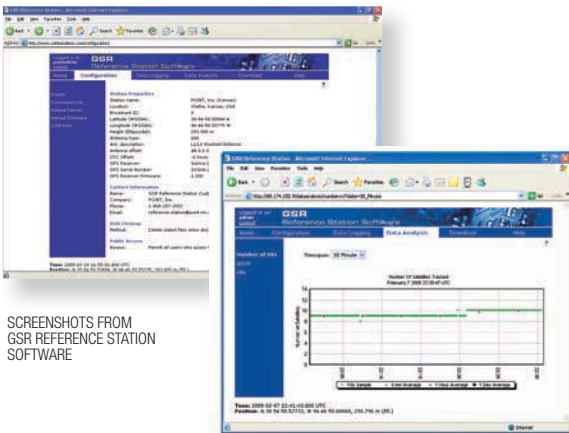
GSR2700 RS

With GSR Reference Station Software

With Sokkia's GSR2700 RS and GSR Reference Station Software, you can access valuable GPS data via the Internet 24 hours a day, seven days a week. The GSR2700 RS features a high-precision, dual-frequency GPS receiver and an Intel Windows XP based PC with an 80 GB hard drive. GSR Reference Station Software is accessible from any computer with an available Internet browser. Use the software to create custom log configurations, gather graphical plots of recent and past satellite information and more. The software is compatible with all Sokkia GPS dual-frequency receivers.



GSR2700RS



SCREENSHOTS FROM GSR REFERENCE STATION SOFTWARE

GSR2700 RS SPECIFICATIONS

Position accuracy	Static	3.0 mm + 0.5 ppm (horizontal); 10.0 mm + 1 ppm (vertical)
Channels		12 x L1 and 12 x L2 with full code and carrier
Cold start/Signal reacquisition		50 sec. (typical) / 0.5 sec. L1, 1.0 sec. L2 (typical)
Dimensions (h x w x d)		4.5 x 43.0 x 60.9 cm (1.8 x 16.9 x 23.9 in)

Data Collectors

Sokkia Allegro CX

Rugged, cable-free Windows CE data collector for GPS and ETS

The Allegro CX is the ideal platform for any survey job. It offers performance, reliability, flexibility and is built to perform in the most demanding environments. It's the ideal partner both in the field and in the office. In the field the Allegro user will like the Allegro's large display, (monochrome or color), the clear keyboard with oversized numeric keys, the large and extendable storage capacity and the long-life battery. The light yet rugged Allegro features Bluetooth® wireless technology which guarantees a flawless cable-free operation of your instrument.



ALLEGRO CX

Back in the office the user will appreciate the Allegro Power Dock (optional) which automatically charges it and enables a swift USB connection to an office PC.



Sokkia JETT ce

Cost effective Windows CE data collector for GPS and ETS

The JETT ce is the cost-effective alternative for GPS and ETS surveys. It offers a unique one-hand operation, sunlight reading display and integrated Bluetooth® wireless technology. The JETT ce is the affordable solution to meet a full range of survey requirements.



JETT CE



Software

SDR Level 5 CE

Built on knowledge from surveyors and previous generations of SDR electronic field books, the SDR Level 5 CE workflow is assembled to follow a logical field collection process. Provided in one single package, SDR's full functionality increases your productivity by offering topographic surveying, stake out, roading and coordinate geometry (COGO). Save time with the ability to switch between GPS and Terrestrial sensors, ensure quality of the reading as you go and check the coverage of collected point using a graphical view.

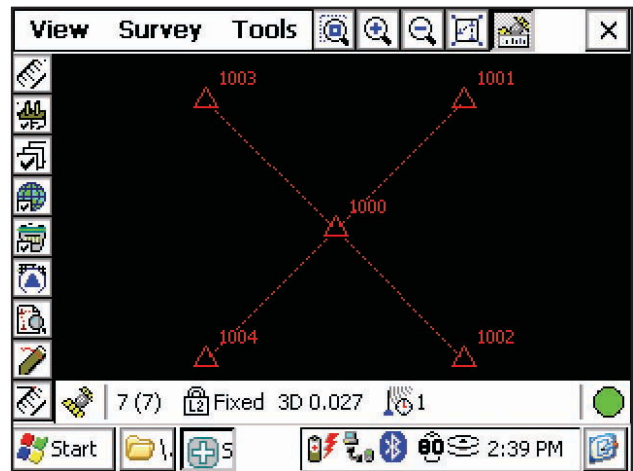
- Handles a large range of GPS and Terrestrial sensors.
- Runs on multiple platforms, including the Two Technologies JETT ce and the Juniper Systems Allegro CX.
- Map vertical heights with a supplied GEOID file or an inclined plane.
- Complete any type of surveying including solar observation.
- Access existing jobs, browse for other jobs, or create a new job simultaneously without using a file browser.
- Utilize customizable feature code lists with point sorting capabilities.
- Export software by a serial port, IRDA connection, modem connection or pre-existing file.
- Customize point code ID's with a range from numeric all the way to alphanumeric.
- Handle data in many forms, including horizontal; horizontal and vertical; and horizontal, vertical and X-slope, using COGO or Roding modes.

SDR+

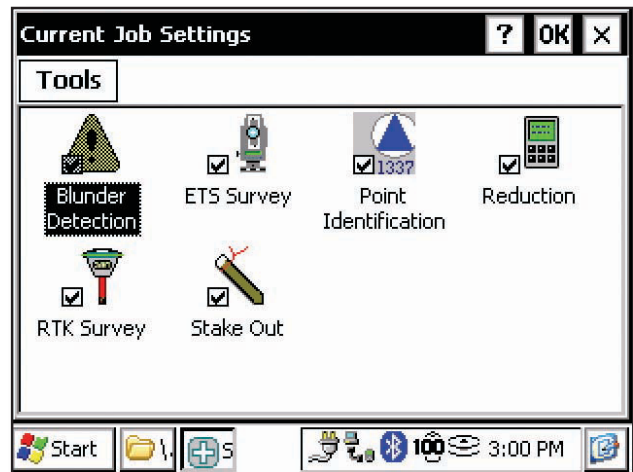


SDR+ is a revolutionary new software that is flexible, easy to use, and offers the ability to customize project settings and modify data.

- Intuitive workflow
- Simple to understand and use
- The most powerful editing capability on the market
- New icon-based graphics
- Automatically updates coordinates after changes
- Easy transition between units of measurement
- Coordinate system flexibility
- Computes datum and coordinate transformation parameters using least squares



SDR+: PLANVIEW



SDR+: CURRENT JOB SETTINGS



Levels

SDL30

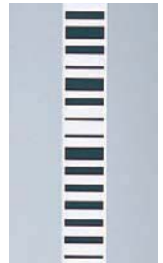
Digital Level

The SDL30 is an accurate, dependable digital level. Used with Sokkia's unique RAB-Code (RANdom Bi-directional Code) staff, measurement and data recording can be automated to dramatically enhance levelling work. The results are indicated digitally on an LCD display. The internal memory is capable of recording up to 2,000 points of data in maximum 20 job files.



RAB-Code Staffs

The Invar RAB-Code staffs provide superb accuracy of 0.6mm. The Fiberglass RAB-Code staves provide 1.0mm accuracy and have conventional graduations on the reverse side for visual measurements.



BGS408•BGS50



SDL30



SDL30 SPECIFICATIONS

Height Accuracy* (with RAB-Code Staffs)	0.6mm (0.03in.) (with invar BIS20/30), 1.0mm (0.04in.) (with Fiberglass BGS40/50/50G3)
Distance Accuracy (with RAB-Code Staffs)	Up to 10m (33ft.): Within 10mm (0.4in.), 10m to 50m (33ft. to 160ft.): Within 0.1% x D (D=measuring distance)
Measuring Range (with RAB-Code Staffs)	1.6 to 100m (5.3 to 320ft.)
Minimum Display (Single, Repeat, Average)	Height Fine: 0.0001m/0.001m (0.001ft/0.01ft.) or 1/8 in., Distance: 0.01m (0.1ft. or 1in.)
Measuring Time	Single mode: Less than 3s, Tracking: Less than 1s
Telescope Magnification	32x
Compensator	Type: Pendulum compensator with magnetic damper, Working Range: 15'
Horizontal Circle	Graduation: 1° (1gon) / Estimation: 0.1° (0.1gon)
Data Storage	Approx. 2,000 points with max. 20 job files, File name is user-definable, Max. 12 characters
Weight w/battery	2.4kg (5.3 lb.)

*Standard deviation for 1km double-run levelling.

B1C•B1•B20•B21

Automatic Levels

Sokkia provides a wide range of automatic levels to suit your specific needs. All models incorporate exclusively designed precision compensators that employ a magnetic damping system for outstanding accuracy and dependability. B20,B21,C300 are IPX4 compliant water resistant.



B1C



B20-B21



B1



TTL6

B1C/B1/B20/B21/TTL6 SPECIFICATIONS

	B1C	B1	B20	B21	TTL6
Telescope Objective Aperture	45mm (1.8in)		42mm (1.7in.)		40mm (1.6in.)
Magnification	32x			30x	25x
Minimum Focus	2.3m (7.5ft.)		0.3m (1.0ft.)		1.8m (5.9ft.)
Accuracy	Standard deviation for 1km double-run levelling				n / a
Without Micrometer	0.8mm (0.03in.)		1.0mm (0.04in.)	1.5mm (0.06in.)	2.0mm (0.08in.)
With Micrometer	0.5mm (0.02in.)		0.8mm (0.03in.)	1.2mm (0.05in.)	n / a
Compensator Type	4 wire pendulum compensator with magnetic damping system				n / a
Working Range	±10'		±15'		n / a
Horizontal Circle Graduation	1° (1gon)	n / a	1° (1gon)		1° (1gon)
Water Resistance	n / a		IPX4 (IEC60529)		n / a
Weight	3.2kg (7.1 lb.)	3.0kg (6.6 lb.)	1.85kg (4.1 lb.)		1.9kg (4.2 lb.)

TTL6

Tilting Level

The TTL6 provides standard deviation of 2.0mm for 1km double-run levelling.



industrial

industrial

Industrial 3-D Solutions



MONMOS

Sheet Target	Reflectorless	Prism	Laser Pointer
Class 2 Laser	Absolute	Compensator	Repetition
%	LCD Level	Illumination	Ex-Keyboard
RS-232C	Printer-Out	Memory 10,000points	Battery Li-Ion

NET 1200



*OPTION



3-D coordinate measuring system

The NET 1200 system handles large-scale 3-D measurement tasks with unprecedented ease. A single operator with a single unit can derive 3-D coordinate values of large structures. As no known station is required, the system can be applied to virtually any situation such as; deformation and displacement measurement of tunnels or buildings, construction supervision and shape measurement of domes, dimensional and shape measurement of large-scale parts used in plants and other facilities, dimensional and shape measurements for construction and repair of ships and aircraft.

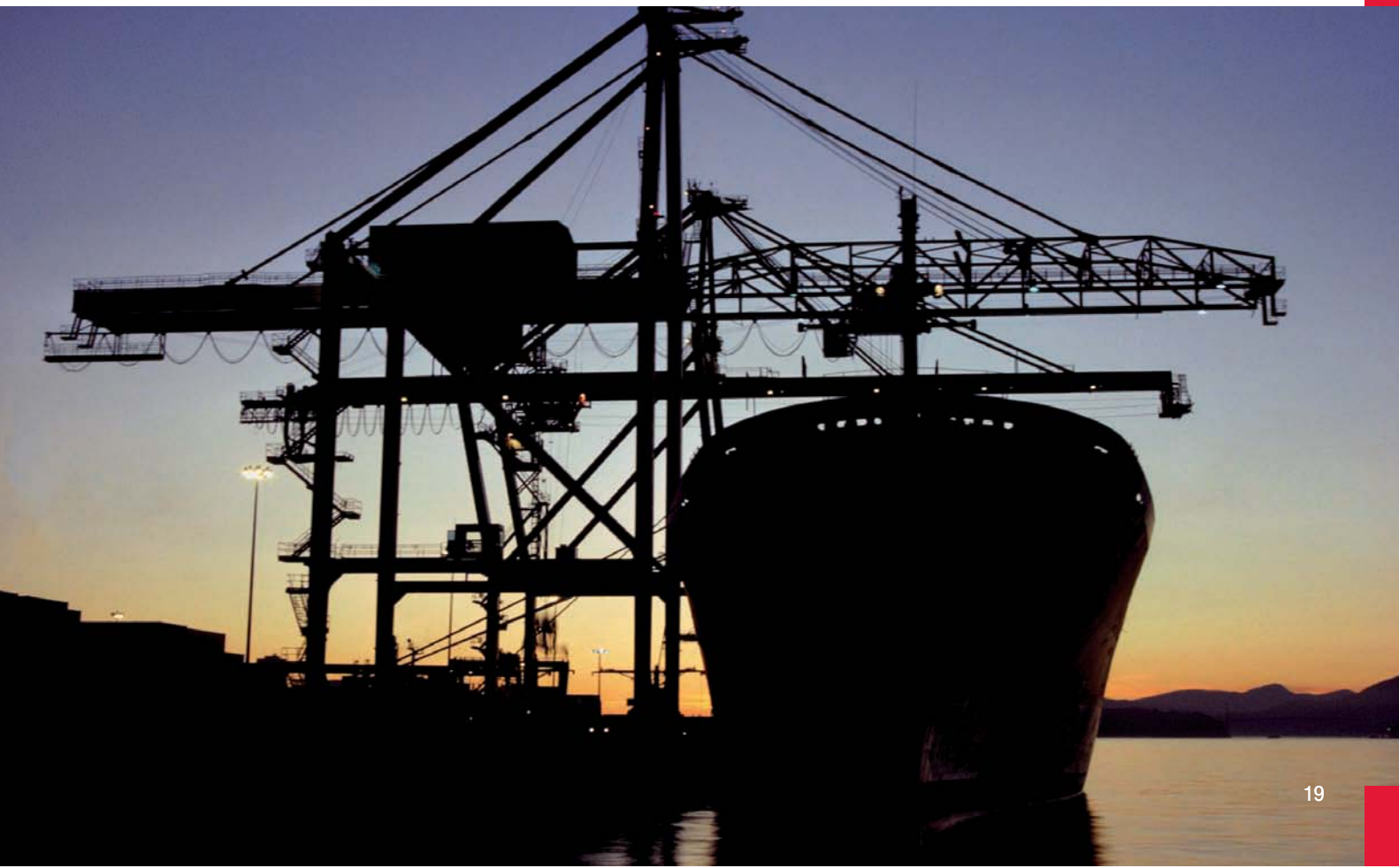
Equipped with a new ultra-high performance EDM and absolute encoders, the NET1200 surpasses its predecessors in precision, range, speed, ease of operation, mobility and weather-resistance. The NET1200 is now capable of 1" angle accuracy, and 0.6mm + 2 ppm distance measurement accuracy with sheet targets. Measuring range with sheet targets has also doubled to 200m (650ft.). The NET1200 provides reflectorless measurement capability with an accuracy of 1mm + 2ppm up to 40m (130ft.)

NET1200 SPECIFICATIONS

Telescope	Magnification	30x
Angle Measurement	Absolute encoder scanning	
Display Resolutions	0.5"/1", 0.1 / 0.2mgon, 0.002 / 0.005mil	
Accuracy (ISO 12857-2:1997)	1" / 0.3mgon / 0.005mil	
Compensator	Dual-axis compensator	
Distance Measurement	Modulated laser, phase comparison method with red laser diode, Coaxial optics	
Measuring Range		
	Reflective Sheet Target RS50N	1.3 to 200m (4.3 to 650ft.)
	Reflectorless*1	1.3 to 40m (4.3 to 130ft.)
	Precision Prism CPS12*2	1.3 to 350m (4.3 to 1,140ft.)
	One AP01 Prism*2	1.3 to 2,000m (4.3 to 6,500ft.)
Accuracy	Reflective Sheet Target	(0.6 + 2ppm x D)mm
	Reflectorless*1	(1 + 2ppm x D)mm
	Precision Prism CPS12	(1 + 2ppm x D)mm (4 to 350m)
	AP01 Prism	(2 + 2ppm x D)mm (4 to 2,000m)
Weight	5.5kg (12.1 lb.)	

*1 With white side of a KODAK Gray Card (90% reflective), brightness 5000 lx or less.

*2 Under good conditions: no haze, visibility about 40km (25miles), overcast, no scintillation.



GLM, Sokkia's industrial business partner

GLM, our Germany based official worldwide industrial partner is specialized in complete tailor-made systems to meet the requirements of the customer, offering both complete optical 3-D solutions and software. Being active for over a decade GLM has gained experience in many industrial applications. Sokkia's superior accuracy measurement 3-D stations in combination with GLM's 3-DIM software and range of reflective targets offer a solution for almost every industrial measuring job.

3-DIM Software

Software for industrial surveying applications

The easy-to-use 3-DIM software range is especially developed for industrial surveying applications. For shipbuilders, railway engineers, bridge builders and many others, 3-DIM is an essential tool for preparation and documentation of dimensional control tasks. Since the first release 3-DIM has continuously improved, considering new requirements of customers and supported by the experience of GLM's industrial surveying engineers. The software runs on different platforms such as controllers and PC's.



3-DIM Observer

The new data logger for Sokkia 3-D stations

Robust hardware fit to withstand the most rugged environments with a quality already proven in practical global applications is the foundation for a new generation of data loggers featuring many advantages compared to all predecessors. The 3-DIM Observer brings software solutions for many industrial applications and is developed to save time in measuring objects. It will lead you through pre-defined measurement routines where aiming at the reflective target is the most time consuming and difficult job.

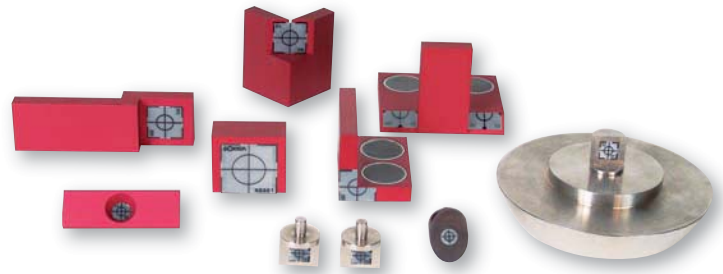


Industrial 3-D Solutions

3-DIM PC-Basic

PC software for 3-D measurement and evaluation in industrial applications

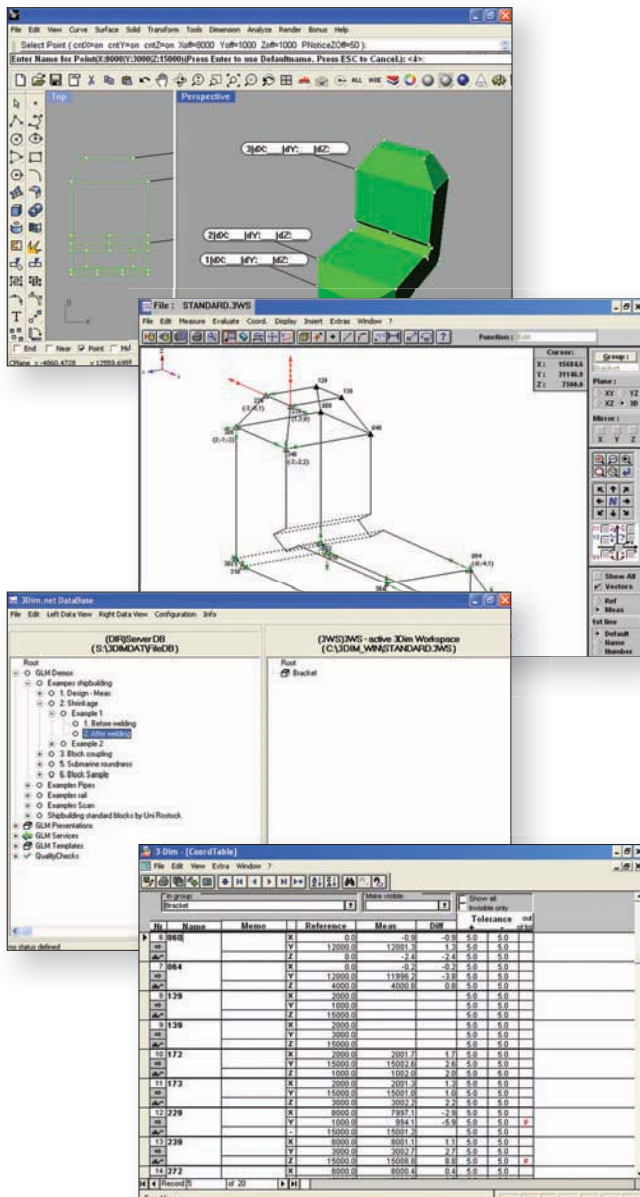
3-DIM PC-Basic is the easy-to-use tool for preparation, measurement and documentation developed for PC's. It displays data in both a graphical and numerical interface from which the data can be edited. The software runs on a powerful database which is accessible from everywhere around the world and every project directory offers the possibility to save all files needed (such as project pictures).



GLM TARGET ADAPTERS

A complete range of reflective target adapters

To make the measuring with Sokkia's MONMOS systems easier and more accurate GLM developed a complete range of reflective target adapters. This range of adapters is very economic in comparison to the use of prisms; prisms break more easily and are much more expensive. The range includes side wall target adapters, paired target adapters, adapters with pin, spherical adapters, target adapters for edges, target adapters for front or rear faces and shipbuilder's target adapters for molding edges. Of course any other adapter can be designed whenever needed because they are developed and manufactured on request.



SCREENSHOTS FROM 3-DIM PC BASIC



Gyro Station

GP3130R3

Gyro Station



GP3130R3 SF14

With the GP3130R3, true north can be located at any time, day or night, regardless of visibility or weather conditions, even when working underground, and without the need of any known station. The GP3130R3, a combination of the GP1 manual gyroscope and the SET3130R3 total station, locates true north and determines true azimuth with 20 arc-second (6mgon, 0.1mil) precision in approximately 20 minutes. All operations can be directly performed with ease using the total station's control panel or the SF14 wireless keyboard. The calculated true azimuth is instantly set to the total station's horizontal angle without the need for numeric data input or manual circle orientation. This allows the operator to proceed immediately to total station surveying work using true azimuth, saving valuable time and effort.

GP3130R3 SPECIFICATIONS

Accuracy of Azimuth Determination (Standard Deviation)	20" (6mgon) / 0.1 mil
Measuring Time	Approx. 20 min.
Weight of Gyro Unit	3.8kg (8.4 lb.)
Weight of Total Station	5.8kg (12.7 lb.)

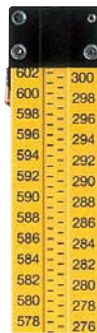
Levels

PL 1 First-order Precision Tilting Level GS 1 Super Invar Staff

The PL1 and GS1 are specially designed for the most precise levelling tasks. GS1's thermal expansion is theoretically "zero".



PL1



GS1

PL1 SPECIFICATIONS

Telescope	Objective Aperture	50mm (2.0in.)
	Magnification	42x
Accuracy	Minimum Focus	2.0m (6.6ft.)
	Without Micrometer	n / a
Compensator	With Micrometer	0.2mm (0.01in.)
	Type	n / a
Working Range	Horizontal Circle Graduation	n / a
	Water Resistance	n / a
Weight		4.8kg (10.6 lb.)

Theodolites

DT210

Digital Theodolite

The DT210 is the most versatile entry-level instrument on the market. With an IP66 waterproof rating the DT210 even operates when conventional theodolites do not, like during sudden showers, continuous drizzling rain or under the influence of high humidity of underground construction sites. The vertical and horizontal angles are electronically read and



DT210

displayed on a large, easy to read, two-line LCD display. The automatic vertical circle indexing means you can achieve a level of accuracy not possible with other instruments in this price range.

DT210 SPECIFICATIONS

Telescope Magnification	30x
Display Resolutions	1"/5", 0.2 / 1mg, 0.005 / 0.02mil, selectable
Accuracy (ISO 12857-2 : 1997)	2" / 0.6mg
Display	LCD, 8 digits x 2 lines with backlight
Display location	On both faces
Compensator	Dual-axis compensator, working range 3' (55mgon)
Dust and Water Protection	IP66 (IEC60529)
Weight w/handle	4.7kg (10.3 lb.)
Battery	LR14/C batteries x 2
Continuous use with alkaline batteries	Approx. 75 hours





construction

Total Stations

Series30R Series30RK

Reflectorless Total Stations

The Series30R & 30RK further enhance Sokkia's RED-tech II total station line-up. These compact yet versatile reflectorless total stations with a wealth of user-friendly features are especially suited for construction applications. Both models are the perfect solution for your day-to-day surveying challenges.

- Sokkia-developed absolute encoders feature the RAB (RANdom Bi-directional) code technology which provides high precision and reliability for angle measurement.
- The Series30RK control panel features a backlit, 10-key alphanumeric keypad equipped on both faces of the instrument (one face for SET630R & SET630RK).
- The password function prevents unauthorized use of the instrument.
- CompactFlash card unit is available as an option (not available for SET630R & SET630RK).
- SF14 wireless keyboard is optionally available (not available for SET630R & SET630RK).
- GDL1 guide light unit is available as an option for all models.
- Highest level of robustness complying with IP66 dust & water protection.



SET230R



SF14



SET230RK3



*1 OPTION *2 OPTION EXCEPT FOR SET630R AND SET630RK *3 SERIES30R LOW TEMPERATURE MODELS ONLY

SERIES30R & SERIES30RK SPECIFICATIONS

		SET230R3 SET230RK3	SET330R3 SET330RK3	SET530R3 SET530RK3	SET230R SET230RK	SET330R SET330RK	SET530R SET530RK	SET630R SET630RK
Telescope	Magnification	30x						26x
Angle Measurement		Photoelectrical absolute rotary encoder scanning.						
Display Resolutions (selectable)		1"/5", 0.2 / 1mg, 0.005 / 0.02mil						
Accuracy (ISO 12857-3:2001 & ISO17123-3:2001)		2" / 0.6mg	3" / 1mg	5" / 1.5mg	2" / 0.6mg	3" / 1mg	5" / 1.5mg	6" / 1.9mg
Compensator		Automatic dual-axis compensator with working range 3' (55mg)						
Distance Measurement		Modulated laser, phase comparison method with red laser diode, coaxial optics						
Measuring Range	Reflectorless*1	0.3 to 350m (1 to 1,140ft.)		1.3 to 500m (1,640ft.)		0.3 to 200m (1 to 650ft.)		150m (490ft.)
	Reflective Sheet RS90N-K	1.3 to 500m (1,640ft.)						
	One AP01 Prism*2	1.3 to 5,000m (16,400ft.)						
Accuracy	Reflectorless*1	0.3 to 200m (1 to 650ft.): (3 + 2ppm x D)mm Over 200 to 350m (over 650 to 1,140ft.): (5 + 10ppm x D)mm		0.3 to 100m (1 to 320ft.): (3 + 2ppm x D)mm Over 100 to 200m (over 320 to 650ft.): (5 + 10ppm x D)mm		0.3 to 100m (1 to 320ft.): (3 + 2ppm x D)mm Over 100 to 150m (over 320 to 490ft.): (5 + 10ppm x D)mm		0.3 to 100m (1 to 320ft.): (3 + 2ppm x D)mm Over 100 to 150m (over 320 to 490ft.): (5 + 10ppm x D)mm
	Prism/Sheet	Glass Prism: (2 + 2ppm x D)mm		Reflective Sheet: (3 + 2ppm x D)mm				
Data Storage	Internal Memory	Approx. 10,000 points						
	Memory Card	CF card unit available as option						
General	Keyboard	15 keys on both faces (Series30R), 27 keys with backlight on both faces (Series30RK)						15 keys on one face (Series30R), 27 keys with backlight on one face (Series30RK)
	Weight w/handle and battery	5.4kg (12 lb.)						5.3kg (11.6lb.) (Series30R) 5.4kg (11.8lb.) (Series30RK)

*1 With the white side of a KODAK Gray Card (90% reflective).

*2 Under good condition s: no haze, visibility about 40km (25miles), overcast, no scintillation.

Total Stations

Series 10 Series 10K

Entry Level Total Stations

The Series10 & Series10K models are compact and versatile total stations for a wide range of construction applications. The Series10K features backlit alphanumeric keys to facilitate easy and quick operation. Both model ranges incorporate absolute encoders to eliminate the need for zero indexing allowing streamlined operation. To further enhance the ease of use, a infrared wireless keyboard is available.

- The pre-installed, versatile survey programs enhance work efficiency in the field allowing an operator to perform a wide variety of survey tasks with ease.
- The Series10K control panel features a backlit, 10-key alphanumeric keypad equipped on both faces of the instrument (one face for SET610 & SET610K).



- The password function prevents unauthorized use of the instrument.
- A CompactFlash card unit can be added as a factory option to the SET210/310/510/210K/310K/510K.
- Supreme dust and water resistance compliant with IP66.
- The 10,000-point internal memory.



SF14



Sheet Target	Prism	Absolute	Compensator	Repetition
%	LCD Level	Ex-Keyboard ⁺¹	Memory ⁺¹	Memory Card ⁺¹
RS-232C	Printer-Out	Battery Li-ion	IP66	-30°C/-22°F ⁺²

⁺¹ OPTION EXCEPT FOR SET610 AND SET610K
⁺² SERIES10 LOW TEMPERATURE MODEL ONLY

SERIES10 & SERIES10K SPECIFICATIONS

		SET210 SET210K	SET310 SET310K	SET510 SET510K	SET610 SET610K
Telescope	Magnification	30x			26x
Angle Measurement		Photoelectrical absolute rotary encoder scanning			
Display Resolutions (selectable)		1"/5", 0.2mgon/1mgon, 0.005mil/0.02mil			
Accuracy (ISO 17123-3:2001)		2" / 0.6mg	3" / 1mg	5" / 1.5mg	6" / 1.9mg
Compensator		Automatic dual-axis compensator with working range 3'(55mg)			
Distance Measurement		Modulated near infrared light (IEC Class 1 LED), coaxial optics			
Maximum Measuring Range		One AP01 Prism ^{*1} : 1 to 2,700m (8,850ft.), Reflective sheet RS90N-K: 2 to 120m (390ft.)			
Accuracy		Glass Prism: (2 + 2ppm x D)mm, Reflective Sheet: (4 + 3ppm x D)mm			
Data Storage	Internal Memory Memory Card	Approx. 10,000 points			n/a
General	Keyboard	CF card unit is available as a option			15 keys on one face (Series10), 27 keys with backlight on both faces (Series10K)
	Weight w/handle and battery	15 keys on both faces (Series10), 27 keys with backlight on both faces (Series10K)			5.0 kg (11.1 lb.) (Series10) 5.1 kg (11.2lb.) (Series10K)

^{*1} Under good conditions: no haze, visibility about 40km (25miles), overcast, no scintillation.

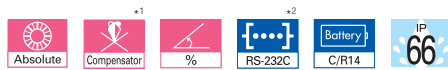
Theodolites

DT210·DT510·DT510A·DT610

Electronic Digital Theodolites



DT510



*1 DT210-DT510 *2 DT210-DT510-DT510A

The DT210, DT510, DT510A, and DT610 feature ultra-low power consumption and Sokkia's advanced absolute encoders. IP66-compliant bodies securely protect the instruments against dust and water.

- Powered by 2 standard LR14/C alkaline batteries, the DT210 and DT510 will operate for 75 hours, while the DT510A and DT610 will work for an astonishing 110 hours.
- Sokkia's market-proven absolute encoders, utilize which RAB (RAndom Bi-directional) code and digital sampling technology, further enhance the reliability of angle measurement.
- Angle display units are selectable from 1", 5", 0.2mgon, 1mgon, 0.005mil, or 0.02mil (DT210, DT510, DT510A); or 5", 10", 1mgon, 2mgon, 0.02mil, or 0.05mil (DT610).
- For increased convenience, once the zero (0) horizontal angle direction is determined, all models emit audible tones for each of the four right-angle directions.
- Measurement data can be output via the RS-232C data port (DT210, DT510, DT510A).
- The DT610 has a fixed base. Shifting tribrach model is also available as a factory option (DT610S).

DT210, DT510, DT510A & DT610 SPECIFICATIONS

	DT210	DT510	DT510A	DT610
Telescope Magnification	30x			26x
Display Resolutions	1"/5", 0.2 / 1mg, 0.005 / 0.02mil, selectable			5"/10", 1 / 2mg, 0.02 / 0.05mil
Accuracy (ISO 12857-2 : 1997)	2" / 0.6mg	5" / 1.5mg		7" / 2.2mg
Display	LCD, 8 digits x 2 lines with backlight			
Display location	On both faces		On one face	
Compensator	Dual-axis compensator, working range 3' (55mgon)		n / a	
Dust and Water Protection	IP66 (IEC60529)			
Weight w/handle	4.7kg (10.3 lb.)	4.5kg (9.9 lb.)		4.2kg (9.3 lb.)
Battery	LR14/C batteries x 2			
Continuous use with alkaline batteries	Approx. 75 hours		Approx. 110 hours	

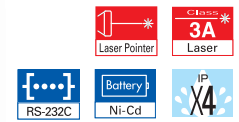


Theodolites

LDT50

Laser Digital Theodolite

- Laser beam reaches over 400 meters in cloudy daylight conditions and even further in dark environments such as tunnels or underground sites.
- Beam type can be switched between focused and parallel without adding any optional accessories.
- The laser beam spot is extremely close to a perfect circle. The spot center is easily determined for quick and accurate results.



LDT50 SPECIFICATIONS

Beam Spot Diameter	Focused Beam	0.5mm at 5m, 2.1mm at 20m, 10.3mm at 100m
	Parallel Beam	15.0mm at 5m, 15.1mm at 20m, 15.3mm at 100m
Telescope Magnification		30x
Angle Display Resolution		1"/5", 0.2/1mg, 0.005/0.02mil, selectable
Angle Accuracy		5" / 1.5mg / 0.02mil
Display		LCD, 20 characters x 4 lines, on both faces
Weight w/battery		5.7kg (12.6 lb.)

Levels



B20 · B21 · C300 · C310 · C320 · C330 · C410

Automatic Levels

Sokkia provides a wide range of automatic levels to suit your specific needs. All models incorporate exclusively designed precision compensators that employ a magnetic damping system

for outstanding accuracy and dependability. B20, B21, C300, C310, C320 and C330 are IPX4 compliant water resistant.



B20-B21-C300-C310-C320-C330-C410 SPECIFICATIONS

		B20	B21	C300	C310	C320	C330	C410
Telescope	Objective aperture	42mm (1.7in.)		36mm (1.4in.)		32mm (1.3in.)		30mm (1.2in.)
	Magnification	30x		28x	26x	24x	22x	20x
	Minimum focus	0.3m (1.0ft.)						
Accuracy	Standard deviation for 1km double-run leveling							
	Without micrometer	1.0mm (0.04in.)	1.5mm (0.06in.)	2.0mm (0.08in.)				2.5mm (0.1in.)
	With micrometer	0.8mm (0.03in.)	1.2mm (0.05in.)	n / a				
Compensator	Type	4 wire pendulum compensator with magnetic damping system						
	Working range	±15'						
Horizontal circle graduation		1°(1gon)						
Water resistance		IPX4 (IEC60529)						n / a
Weight		1.85kg (4.1 lb.)		1.7kg (3.7 lb.)			1kg (2.2 lb.)	

Levels

SDL50

Digital Level

The SDL50 is a reliable, easy to use digital level ideal for the construction field. Functionality and performance of higher class models are available at an affordable price.

- Height accuracy of 1.5mm can be achieved using fiberglass RABCode staffs (Standard deviation for 1km double-run levelling).
- The SDL50 is equipped with the same compensator as the SDL30, assuring a reliable, wide compensating range more than $\pm 15'$.
- The SDL50 incorporates the same programs to help speed up construction work.
- The internal memory holds 2,000 points of data in a maximum of 20 job files.
- Measured data can be exported in CSV format using the software "SDL TOOL".

RAB-Code Staves

The invar RAB-Code staves provide superb accuracy of 0.6mm. The Fiberglass RAB-Code staves provide 1.0mm accuracy and have conventional graduations on the reverse side for visual measurements.



BGS40-BGS50



SDL50



SDL50 SPECIFICATIONS

Height accuracy* (with RAB-Code staffs)	1.5mm (0.06in.) (with Fiberglass BGS40/50/50G3)
Distance accuracy (with RAB-Code staffs)	Up to 10m (33ft.) : Within $\pm 10\text{mm}$ ($\pm 0.4\text{in.}$), 10 to 50m (33 to 160ft.) : Within $\pm 0.1\%$ x D (D=measuring distance)
Measuring range (with RAB-Code staffs)	1.6 to 100m (5.3 to 320ft.)
Minimum display (Single, Repeat, Average)	Height : 0.0001m / 0.001m, 0.001ft. / 0.01ft. or 1/8in., Distance: 0.01m (0.1ft. or 1in.)
Measuring time	Single mode: Less than 3s, Tracking: Less than 1s
Telescope magnification	28x
Compensator	Type: Pendulum compensator with magnetic damping system, Working Range: More than $\pm 15'$
Horizontal circle	Graduation: 1° (1gon)
Data storage	2,000 points in max. 20 job files, (Job name user-definable)
Weight w/battery	2.4kg (5.3 lb.)

* Standard deviation for 1km double-run leveling.



Construction Laser Instruments

LP30A · LP31A

Levelling Lasers

Whether used indoors or outdoors, the LP30A and LP31A answer a wide range of levelling application requirements.

- LP30A and LP31A employ Sokkia's precision pendulum compensator with air damper which is unaffected by temperature variations.
- Both models operate for 90 hours with four alkaline batteries and 40 hours with a Ni-Cd rechargeable battery BDC39A.
- The LR100 detector has displays on both faces. Two sensitivity settings can be selected.



LP30A & LP31A SPECIFICATIONS

	LP30A	LP31A
Rotation Speed	600rpm	
Typical Measuring Range (Diameter)	600m (2,000ft.)	240m (800ft.)
Horizontal Accuracy	1mm at 30m	1.5mm at 30m
Compensator	Pendulum compensator with air damper	
Weight w/battery	2.5kg (5.5 lb.)	

LP310

Self Levelling Laser

- Horizontal self levelling
- Tilt Alarm
- Detector and clamp



LP310 SPECIFICATIONS

Rotation speed	600rpm
Typical Measuring Range (Diameter)	600m (2,000ft.)
Accuracy	1.5mm at 30m
Weight w/battery	2.3kg

LV1

Precision Laser Plummet



The LV1 offers a high level of plumb precision. The laser beams directed both up and down to easily locate points that are vertically above and directly below a given reference point.

LV1 SPECIFICATIONS

Beam Accuracy	Upward: $\pm 5''$, Downward: $\pm 1''$
Measuring Range	Upward: 100m (330ft.), Downward: 5m (16ft.)
Beam Spot Diameter (at emission)	Upward: 7mm (9/32in.), Downward: 2mm (1/12in.)
Weight w/battery	2.5kg (5.5 lb.)



Construction Laser Instruments

TRIAX EL400H TRIAX EL400HV

Electronic Laser levels

- Horizontal self levelling
- Semi automatic vertical levelling (EL400HV)
- Visible class 3R laser
- Automatic "TILT" function
- Single Slope
- Detector and clamp



TRG-R90

EL400H



TRG-R60

EL400HV



EL400H/EL SPECIFICATIONS

Rotation speed	from 0 to 600rpm
Typical Measuring Range (Diameter)	300m (1,000ft.)
Accuracy	3mm at 30m
Weight w/battery	1.3kg

TRIAX MC550

Universal Laser Receiver

- Suitable for machines and grade rods
- Works with all rotating lasers



MC550



MC550 SPECIFICATIONS

Beam Reception	240 degrees
Battery Life	160 hours

TRIAX PL100

Pipe Laser

- Aluminium housing
- Cross axis self levelling
- 4 Mw Laser diode
- Remote control



PL100



PL100 SPECIFICATIONS

Range	200m (670ft.)
Grade Range	-10% to 40%
Side Alignment Range	20m at 100m
Accuracy	5mm at 100m
Weight w/battery	4.5kg

TRIAX UL300

Universal Laser

- Horizontal/vertical self levelling
- Scanning mode
- Automatic "TILT" function
- Remote grade input up to 10%
- Can be used for laying sewer pipe



UL300



UL300 SPECIFICATIONS

Rotation speed	60, 150, 300, 450, 600, 720rpm
Typical Measuring Range (Diameter)	300m (1,000ft.)
Accuracy	10mm at 100m
Weight w/battery	3.5kg

TRIAX MC510

Machine control receiver

- Wireless remote display (RD510)
- Used for graders and excavators
- Vertical indication built in
- Beam reception 360 degrees
- Works with all rotating lasers



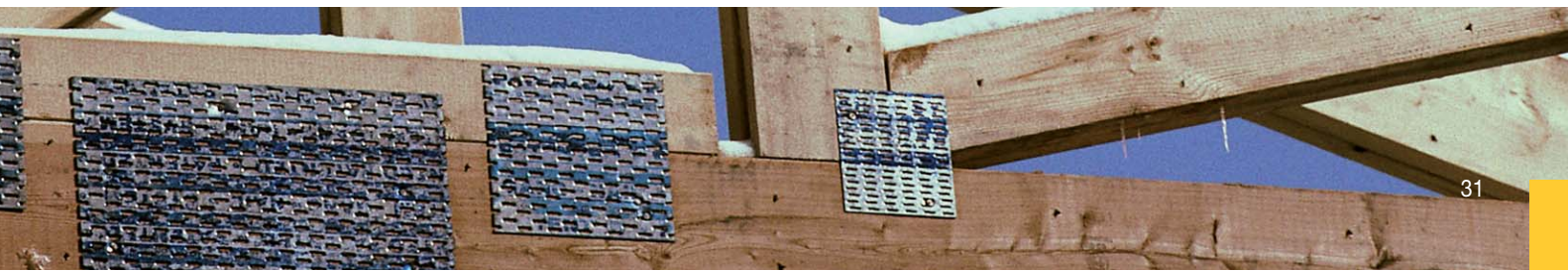
RD510

MC510



MC510 SPECIFICATIONS

Beam reception	360°
Operating range	200m
Battery life	40 hours



Interior Laser Instruments

TRIAX MP400

Multi Purpose Laser

- Sets 90° angle
- Horizontal/vertical self levelling
- Visible class 3R laser
- Scanning mode
- Chalk line mode
- Automatic "TILT" function
- Single slope
- Remote control



MP400 SPECIFICATIONS

Rotation speed	from 0 to 600rpm
Typical Measuring Range (Diameter)	300m (1,000ft.)
Accuracy	3mm at 30m
Weight w/battery	1.3kg

TRIAX LT40

Cross Line Laser Tool

- Horizontal/vertical self levelling
- Simultaneous horizontal/vertical line
- Plumb up and down
- Sets 90° angle
- Optional detector



LT40 SPECIFICATIONS

Typical measuring range	15m
Accuracy	3mm at 10m; Plumb Beams 1.5mm at 5m
Weight	0.47kg

TRIAX LS101

Cross Line Laser Tool

- Horizontal/vertical self levelling
- Simultaneous horizontal/vertical line



LS101 SPECIFICATIONS

Typical Measuring Range	10m (33ft.)
Accuracy	1.5mm at 3m
Weight with Mount	0.75kg



3 year warranty

Sokkia Europe has increased the warranty period for both Sokkia and Triax products to a 3-year warranty*. With this statement, Sokkia Europe shows its commitment and confidence in the complete product portfolio.

We realize that a buying decision is based on a mixture of product features that should fulfil the customers demand and the overall benefit on longer term. In other words, what are the costs in relation to the product life cycle? With the 3-year warranty Sokkia in Europe provides to keep the total costs of ownership at a reasonable low level. Although we strongly believe in our products we do encourage our customers to do a regular calibration check to keep the instrument technically healthy. Our equipment operates in all weather conditions including rain, dust and huge temperature differences and these circumstances do influence the performance. Contact your local Sokkia reseller for assistance when required.

The 3-year warranty policy is applicable to all countries in Europe, Russia and other CIS countries and applies to instruments sold from January 1, 2007.



*LASER TOOLS ARE NOT INCLUDED

SOKKIA

SOKKIA's line-up of surveying instruments includes everything from Global Positioning Systems (GPS), software, electronic total stations and distance meters, to electronic and optical theodolites, levels and laser products. Whether you're involved in construction, building a highway, bridge or tunnel, or charting a nationwide map, SOKKIA surveying instruments and systems always provide the best solution.

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