STONEX

R1 PLUS

THE MOST AFFORDABLE HIGH PRECISION TOTAL STATION

HANDY, LIGHT AND PRECISE

STONEX R1Plus Total Station, precise distance and angles measurements, concentrated in 5 Kg of pure technology. The perfect tool whenever the topographic works requires a light and fast machine, all day working thanks to 26 hours of continuous operating time.

THE FLEXIBLE PARTNER OF ANY PROFESSIONAL SURVEYOR

The onboard field programs, included as standard, make STONEX R1Plus suitable for any construction site, cadastral, mapping and staking out, works. No limitation for distance measurements, up to 5.000 m with a single prism - 300 m reflectorless (KGC 90%) – and 5" as angular accuracy, always guarantee a reliable points calculation.

Laser technology (class 3 laser with a wavelength between 650 and 690 nm) for distance measurement

SOLID, RUGGED, POWERFUL

STONEX R1Plus has been designed to hold out against rain and dust: the IP66 certification allows to go ahead with the survey even during hard rain. The body design is distinguished by its robus mechanical structure, and the high performance telescope, featuring 30X magnification and illuminated reticle, provide the best sighting quality in any lighting condition.

PROTECT YOUR BUDGET

STONEX R1Plus is not amazing only for its technical features. Enjoy the R1Plus benefit cost ratio, probably the most effective in the Total Station market, and 2 years of global warranty, guaranteed from the worldwide network of STONEX authorized Distributors.

Alphanumeric keyboard on both sides with high resolution LCD display and backlight and 6 lines of 20 characters

KEY FEATURES

POWERFUL
300 m reflectorless measuring power, up to 5.000 m with single prism

EASY DATA
Communication with the mini USB port to load/download data

INTEGRABLE
Complete field programs suite for data collection, staking out, resection, REM, area calculations, offset, point to line

EASY READER
Alphanumeric keyboard on both sides with high resolution backlighted LCD display

CAPACITY
Large storage capacity with 128MB internal memory - External SD Card

CERTIFICATED
IP 66 protection certification, dust and watertight guaranteed

TECHNICAL FEATURES R1 PLUS

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ANGLE MEASUREMENT

Reading system	Absolute encoder
Display resolution	1" / 0.0002gon/0.005mil
Angle Unit	360°(dms/d)-400gon/6400mil
Accuracy	5"

TELESCOPE

Magnification	30 x
Field of view	1°30'
Minimum focus	1.0 m
Reticle	10 brightness levels adjustable
Objective aperture	ϕ 45 mm

AUTOMATIC COMPENSATOR

System	liquid detection double axis compensator
Compensation range	± 3'

DISTANCE MEASUREMENT RANGE

Without Prism	1.0 ～300[1] m
With Prism	1.0 ～3000[2] 2000[3] 1500[4] Class 1 up to 5000 m Class 3
With reflective sheet (60mm x 60mm)	1.0 ～800 m
With Mini Prism	2.0 ～800 m

MEASUREMENT ACCURACY

Without Prism	± (3+2×10^{-6}D)mm/(2～150) m ± (5+3×10^{-6}D)mm/(150～300) m
With Prism	± (2+2x10^{-6}D) m
With reflective sheet (60mm x 60mm)	± (3+2x10^{-6}D) m

MEASUREMENT TIME

Measuring time[5] (Tracking/Fast/Fine)	0.5 sec / 1.5 sec / 2.0 sec
Distance Unit	m/ft/US ft
Display Resolution	0.0001m/0.001ft/0.001ft

Specifications subject to change without notice

LASER PLUMMET

Laser type	635nm semiconductor laser
Accuracy	1mm at 1.5 m instrument height
Laser spot	2 mm/1.5m

LEVEL VIAL SENSITIVITY

Plate level	30 ("2mm)
Circular level	8 ('/2mm)

ENVIRONMENTAL CONDITIONS

Operating / Storage Temperature	-20° C ; +50° C / -40° C ; +70° C
Protection to dust and water	IP66

WEIGHT

Weight including battery and tribrach	5.1 Kg

BATTERY

Voltage/Capacity	7.4V / 3400mAh Li-ion battery
Operating period with continuous angle measurement	36 hours
Operating period with measurement every 30 seconds	26 hours (>1.000 measurement at 20°C)

OTHER SPECIFICATIONS

Display	Two sides, LCD, 96x160 dots
Internal Memory	128 MB
External Memory	2 GB SD card
Interface	RS-232C / mini USB/ SD card
Charger	110/220V, Charging time: about 4h

IP66 FC CE RoHS 2 2011/65/EU

[1] Visibility about 20 km, back light less than 5000 lx, no haze, no direct sunlight. No prism target: KODAK CAT NO.E1527795 (reflectivity: 90%, size: A4).

[2] Visibility about 40 km, sunny, no heat shimmer.

[3] Visibility about 20 km, moderate sunlight, slight heat shimmer.

[4] Visibility about 10 km, light haze, severe heat shimmer.

[5] Best testing condition: indoors, target is far away about 10 m, prism or KODAK board.

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STONEX AUTHORIZED DEALER

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