

## R35/R35LR Total Station

Highest accuracy  
Windows based



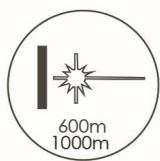
# R35/R35LR Fully customizable TOTAL STATION

Stonex R35/R35LR series is the most customizable Total Station of the market. Depending on the user needs, R35/R35LR comes with endless friction drives for continuous horizontal and vertical rotations, 2" accuracy and 600/1000 m reflectorless range.

This advanced Total Station is fully customizable: each user can choose the software that best suits own needs. Several onboard software to be chosen, such as Microsurvey FieldGenius, Carlson SurvCE, ANTAS Mobile and many Custom field applications.

In addition the TFT 320x240px touch screen display on both sides gives the Surveyor a clear, colourful and fully graphical environment, and the user friendly on board software supports the users with guided through functions for data collection, topographic surveys, staking out.

The high-precision class 3 EDM featuring millimeter accuracy even on long range distances, and the absolute encoders performing high precision angles measurements, provide reliable points calculation in every condition.



## UP TO 600/1000 m REFLECTORLESS

By using digital phase laser ranging technology, R35/R35LR guarantees high accuracy long range measurements: up to 600/1000 m in reflectorless mode and up to 5000 m using a single prism, with millimeter accuracy.



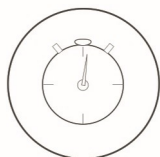
## TEMPERATURE PRESSURE SENSORS

Temperature and pressure changes have a negative impact on the accuracy of distance measurements: the smart R35/R35LR monitors the changes and automatically adjusts the distance calculations.



## CHOOSE YOUR FAVORITE ONBOARD SOFTWARE

By choosing R35/R35LR you are not forced to use the manufacturer software! A wide range of well known field software are compatible, and the user can even create his own application onboard.



## FAST, ACCURATE, RELIABLE

Measuring distances and angles in one second, with 2 mm accuracy, makes any job extremely cost effective and reliable. The big touch screen graphic display facilitates the daily work in the field.





# R35/R35LR

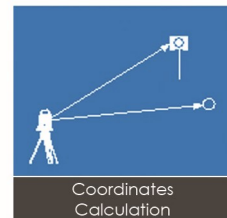
## New with endless friction drives and trigger key

R35/R35LR model has been updated with endless friction drives (no more clamps and limited HOR & VERT rotations) and with a trigger key for more accurate measurements. R35/R35LR clear 30X telescope, with illumination adjustable reticle, provides superior sighting quality in any light condition, while the coaxial laser pointer gives a safe pointing to any point.

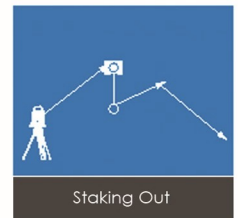


### TRIGGER KEY & ENDLESS FRICTION

These features make R35/R35LR one of the most manageable Total Stations of the market: target collimations are fast and accurate using both the hands and the measure starts using the trigger key located on the same side of the instrument.



Coordinates Calculation

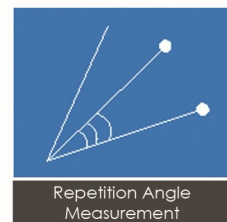


Staking Out

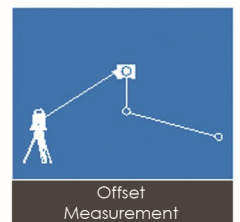


### WIDE RANGE OF COMMUNICATION OPTIONS

Standard RS232 interface, USB, mini USB, guarantee a seamless in/out data flow to any external device. The wireless Bluetooth connection allows to connect R35/R35LR with handheld computers giving the possibility to use a custom field software on line with the instrument.



Repetition Angle Measurement

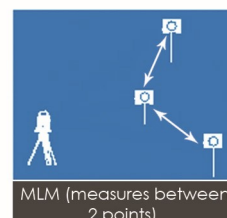


Offset Measurement

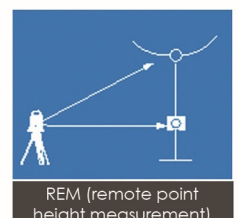


### 2 SIDES TOUCH SCREEN DISPLAY

The clear TFT 320x240px 2 sides touch screen display gives the Surveyor a clear, colourful and fully graphical environment, and the user friendly on board software supports the Surveyor with guided through functions for data collection, topographic surveys, staking.



MLM (measures between 2 points)



REM (remote point height measurement)

# R35/R35LR TECHNICAL FEATURES

## ANGLE MEASUREMENT

Accuracy <sup>1</sup>	2"
Reading system	Absolute encoder
	0.1" /0.5" /1"
Display Resolution (selectable)	0.00002g/0.0001g/0.0002g 0.0005mil/0.002mil/0.005mil
Angle Units	DEG 360°/GON 400/MIL 6.400

## TELESCOPE

Magnification/ Field of view	30x/1°30'
Tube length	156 mm
Minimum focus distance	1.0 m (3.26 ft)
Reticle	10 brightness levels adjustable
Objective aperture	φ 45 mm
Laser pointer	Red light, coaxial

## TILT SENSOR

Type	Electronic, dual-axis
Compensation range/accuracy	± 3.0'/1"

## DISTANCE MEASUREMENT RANGE<sup>2</sup>

Standard mode prism	3.000 m <sup>3</sup>
Long mode prism	5.000 m <sup>4</sup>
Reflective sheet (6cm x 6cm)	800 m <sup>4</sup>
Reflectorless <sup>6</sup>	Up to 600 m <sup>4</sup> Up to 1.000 m <sup>4-5</sup>

## DISTANCE MEASUREMENT ACCURACY<sup>7</sup>

Standard mode prism	2 mm + 2 ppm
Long mode prism	2 mm + 2.5 ppm
Reflective sheet (6cm x 6cm)	2 mm + 2 ppm
Reflectorless	2 mm + 2 ppm

## MEASUREMENT TIME

Standard mode/Prism (Tracking/Fast/Fine)	0.4/0.6/1.0 sec
Reflectorless	1.5÷5 sec

## DISTANCE MEASUREMENT

Distance Unit	m/US ft/INT ft
Display Resolution (selectable)	0.0001m/0.001m 0.001ft/0.01ft

## LASER PLUMMET

Laser type	635nm semiconductor laser
Accuracy	1mm/1.5 m
Spot	± 1.5mm/1.5 m

## LEVEL VIAL SENSITIVITY

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

## ENVIRONMENTAL CONDITIONS

Operating Temperature	-20° C +50° C
Storage Temperature	-40° C +70° C
Waterproof/Dustproof	IP55

## PHYSICAL SPECIFICATION

Dimensions	206 x 203 x 360 mm
Weight including battery and tribrach	6.1 Kg

## POWER

Battery Voltage/Capacity	7.4V/3.400mAh Li-ion
Operating time (angle measurement)	Up to 9 hours
Operating time (distance meas. every 30 sec)	Up to 8 hours
Operating time (angle + distance meas.)	Up to 5 hours
Battery charger	110/220V, charging time 4h

## OTHER SPECIFICATIONS

CPU	ARM Cortex A8
Display/Keyboard	Two sides, 3.5" color TFTLCD 320x240 pixel touch screen
OS	Windows CE 7.0
Memory	4Gb internal
Interface	RS-232C/standard USB/ mini USB/Bluetooth
Guide Light	4 levels
Sensor	Temperature/Pressure

## ON BOARD FIELD APPLICATION PROGRAMS

On board is it possible install: FieldGenius/SurvCE/ANTAS Mobile

Illustrations, descriptions and technical specifications are not binding and may change

- 1 Standard deviation based on ISO 17123-3
- 2 Good condition: no haze, visibility about 40km, no heat shimmer, breeze.
- 3 Class 1
- 4 Class 3R
- 5 R35LR Model
- 6 Under optimal conditions on good surface
- 7 Standard deviation based on ISO 17123-4



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