

## R25/R25LR Total Station

Endless friction drives  
and trigger key



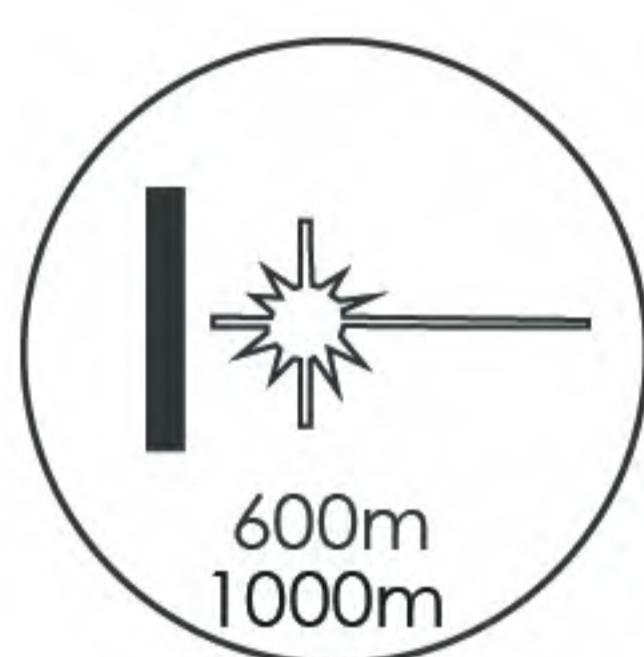
# R25/R25LR High Precision TOTAL STATION

High accuracy and long reflectorless range are the perfect combination that makes Stonex R25/R25LR the best friend of every professional surveyor.

Cadastral, mapping, staking out, and up to high precision monitoring works: within the range of R25/R25LR Series, you will find the solution that fits your needs.

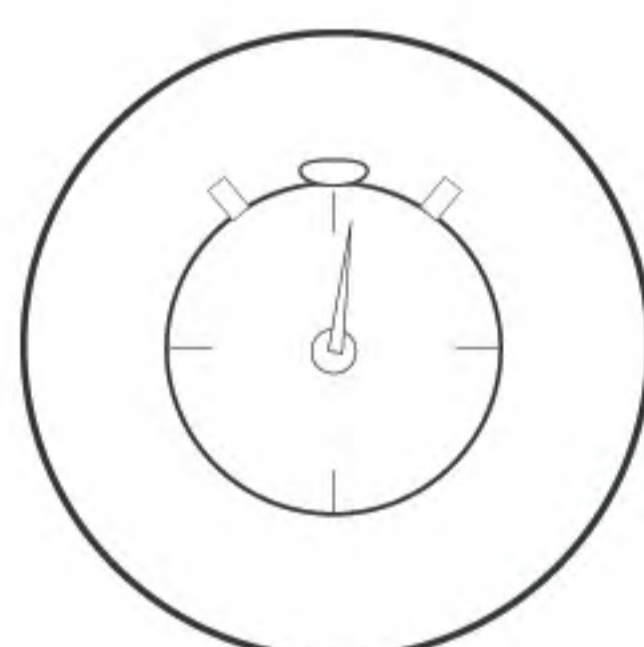
R25/R25LR comes standard with integrated onboard field software, a complete suite of applications, and an external controllers can be linked to Stonex R25/R25LR, through the Bluetooth™ wireless connection: no limitation will stop your working process. Road software module is included as standard in each Stonex R25/R25LR.

Stonex R25/R25LR features endless friction drives for continuous horizontal and vertical rotations: no more knobs and clamps with limited movements but a more comfortable use of the station. The trigger key on the side of the instrument guarantees the same accuracy provided by a traditional clamp lock system.



## LIMITLESS DISTANCE MEASUREMENTS

By using digital phase laser ranging technology, R25/R25LR guarantees high accuracy long range measurements: 600/1000 m in reflectorless mode and up to 5000 m using a single prism, with millimeter accuracy.



## FAST, ACCURATE, RELIABLE

Measuring distances in one second, with 2 mm accuracy, makes any job extremely cost effective and reliable. The wide range of application software allows to complete the Surveyor's tasks directly in the field.



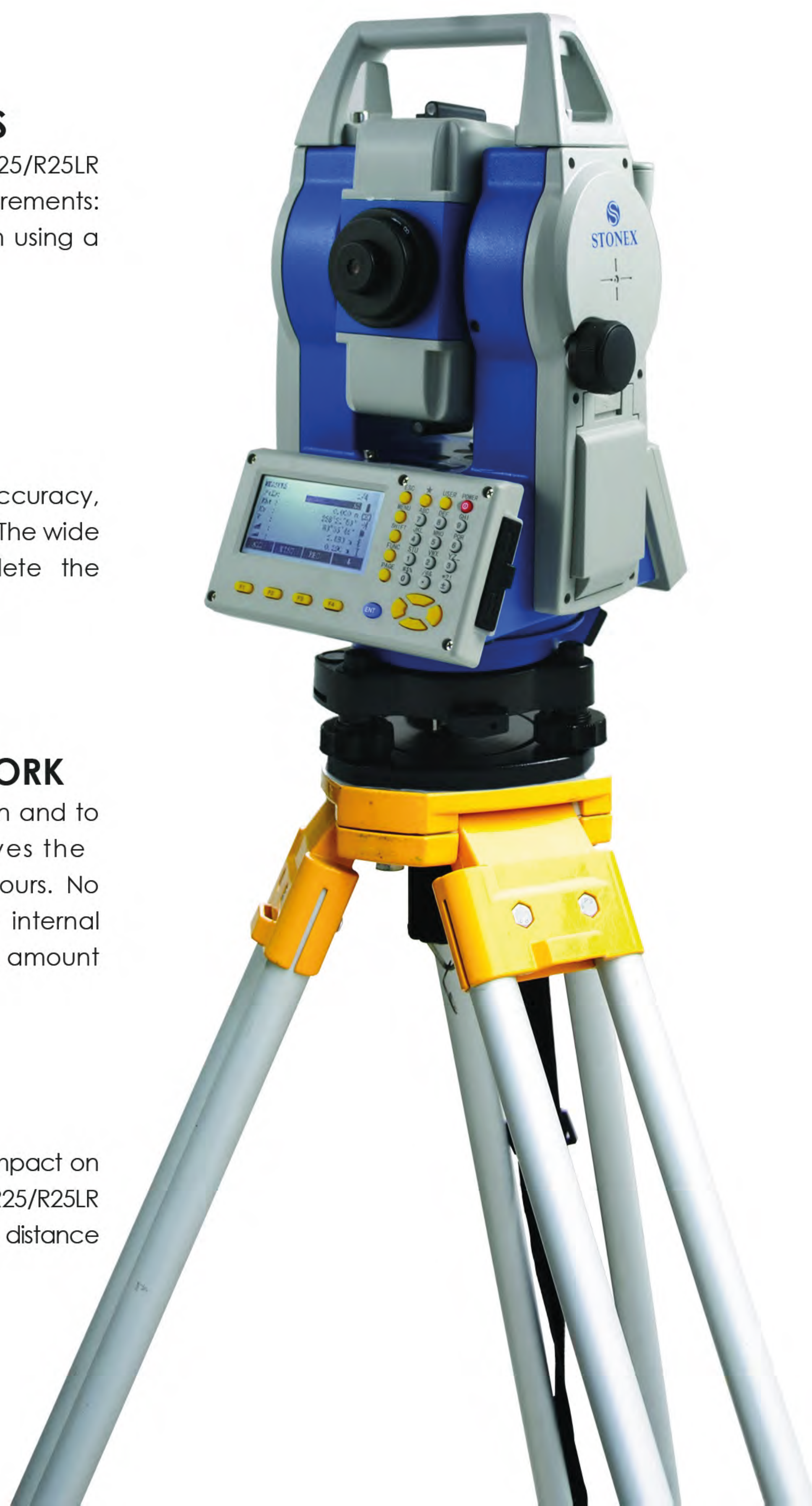
## ONE DAY OF CONTINUOUS FIELD WORK

Thanks to the low power consumption circuit design and to the two high capacity batteries R25/R25LR gives the opportunity to continuously work for around 13 hours. No concern for data storage: the improved 4 Gb internal memory and the SD card up to 16 Gb store a huge amount of data.



## TEMPERATURE PRESSURE SENSORS

Temperature and pressure changes have a negative impact on the accuracy of distance measurements: the smart R25/R25LR monitors the changes and automatically adjusts the distance calculations.





# R25/R25LR

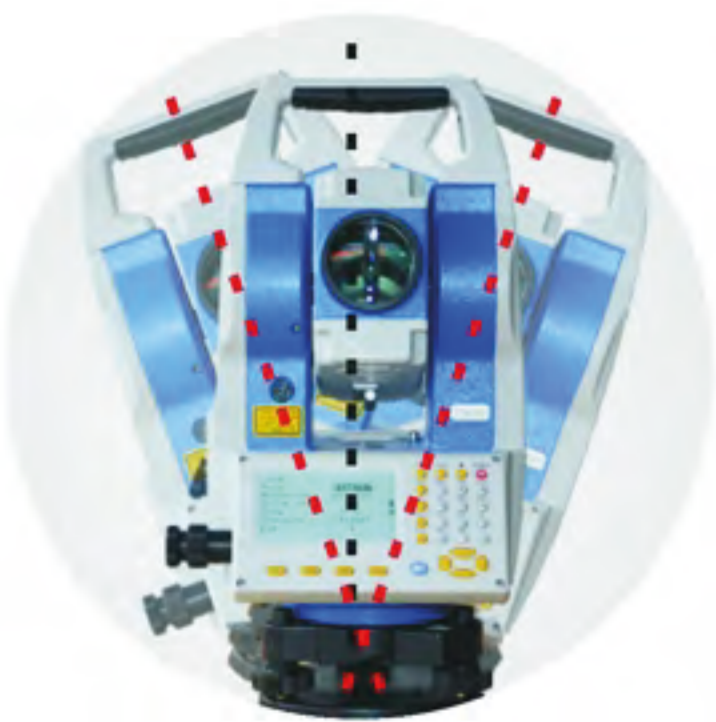
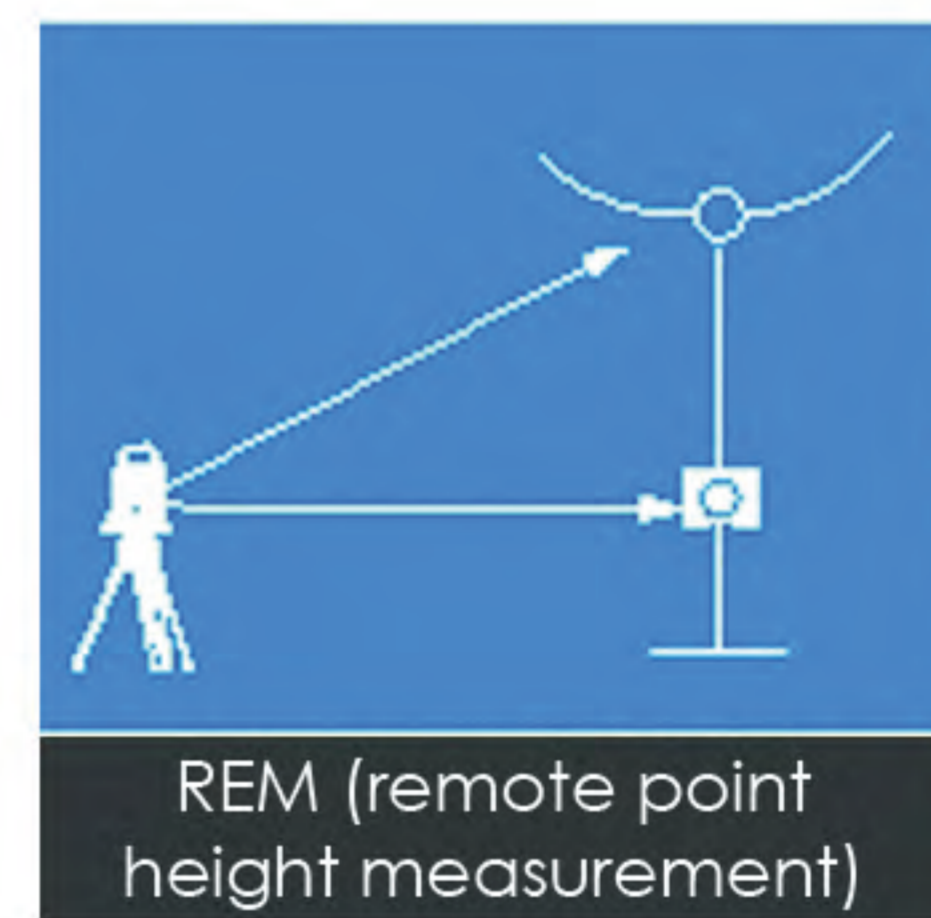
## The total station with endless drives

Whether the work is a basic survey or a long road staking out under full sun, R25/R25LR will always help you with a friendly user interface and its intuitive field software. The navigation menu drives the Surveyor into simple operations, and the results are displayed in a clear way.



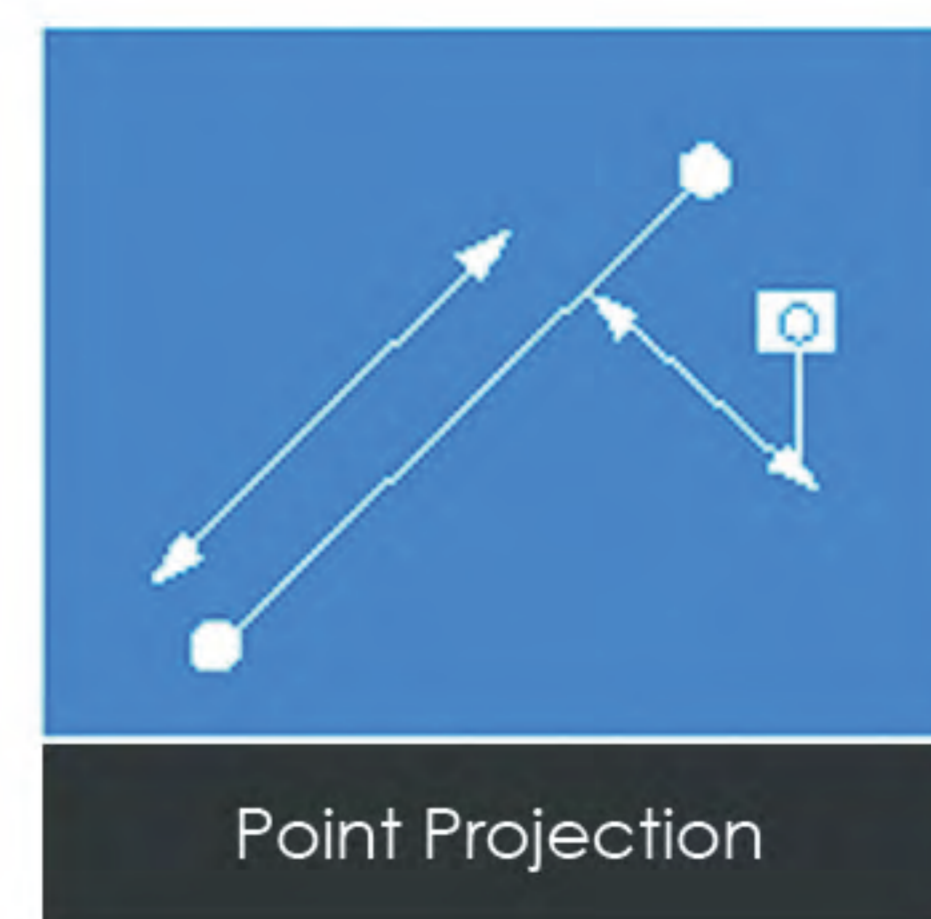
### ENDLESS FRICTION DRIVES & TRIGGER KEY

These features make R25/R25LR 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.



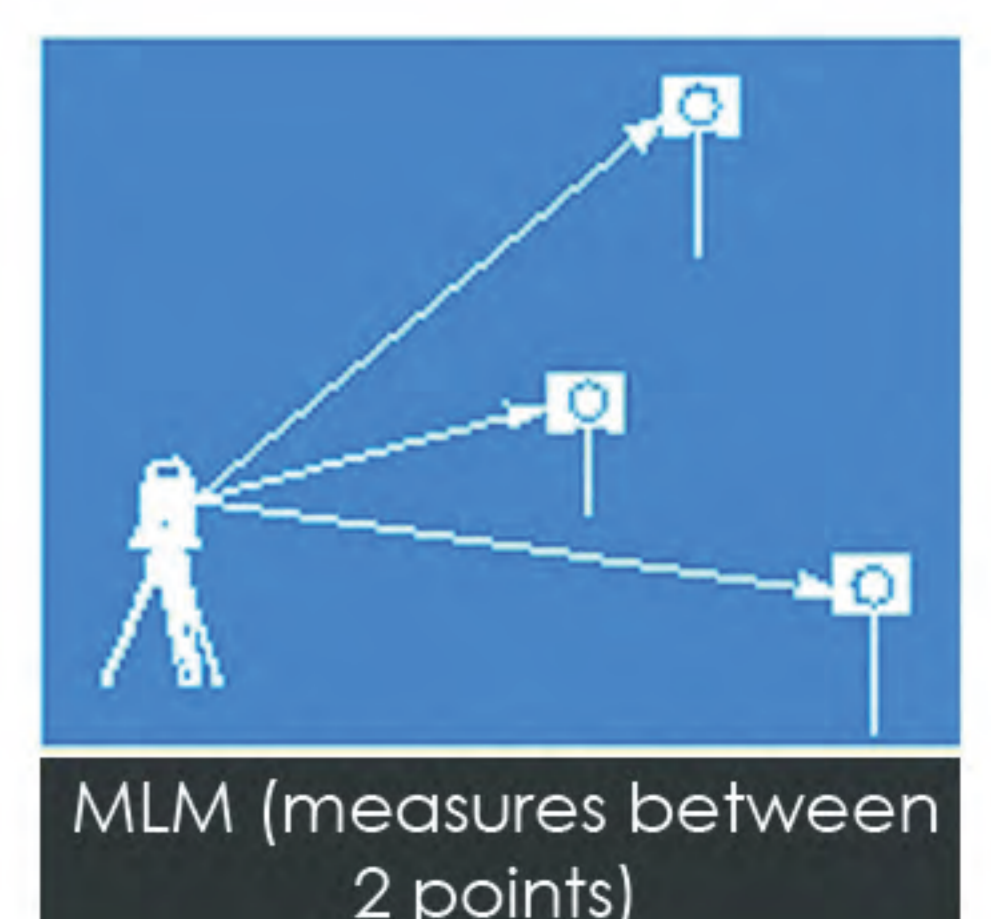
### AUTOMATIC 2 AXIS COMPENSATION

The electronic dual axis compensator featuring a wide range automatically levels R25/R25LR when it is not perfectly horizontal; the status of the compensator is shown on the graphic display allowing an accurate levelling of the instrument.



### WIDE RANGE OF COMMUNICATION OPTIONS

Standard RS232 interface, USB, SD card up to 16 Gb, Bluetooth guarantee a seamless in/out data flow to any external device. The wireless Bluetooth connection allows to connect R25/R25LR with handheld computers giving the possibility to use a custom field software on line with the instrument.



# R25/R25LR TECHNICAL FEATURES

## ANGLE MEASUREMENT

Accuracy <sup>1</sup>	2"
Reading system	Absolute encoder
	1" /5" /10"
Display Resolution (selectable)	0.0001g/0.0005g/0.001g 0.01mil/0.05mil/0.1mil
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	ON/OFF
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)	3 mm + 2 ppm
Reflectorless	3 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	0.001m 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	6.0 Kg

## POWER

Battery Voltage/Capacity	7.4V/3.400mAh Li-ion
Operating time (angle measurement)	Up to 13 hours
Operating time (distance meas. every 30 sec)	Up to 12 hours
Operating time (angle + distance meas.)	Up to 6 hours
Battery charger	110/220V, charging time 4h

## OTHER SPECIFICATIONS

Display/Keyboard	Two sides, LCD 240x128 Dots/Alphanumeric
Memory	4Gb internal SD card (max 16Gb)
Interface	RS-232C/mini USB/SD card/ Bluetooth
Sensor	Temperature/Pressure

## ON BOARD FIELD APPLICATION PROGRAMS

Data recording and management, Stake out, Area & Volume, Target offset, Hidden point, COGO, Tie distance, Remote height, Height transfer, Free station, Line/Arc stake out, Construction, Lead measure, Road

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 R25LR Model

6 Under optimal conditions on good surface

7 Standard deviation based on ISO 17123-4

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