

## R25/R25LR Total Station

Endless friction drives  
and trigger key





# R25/R25LR

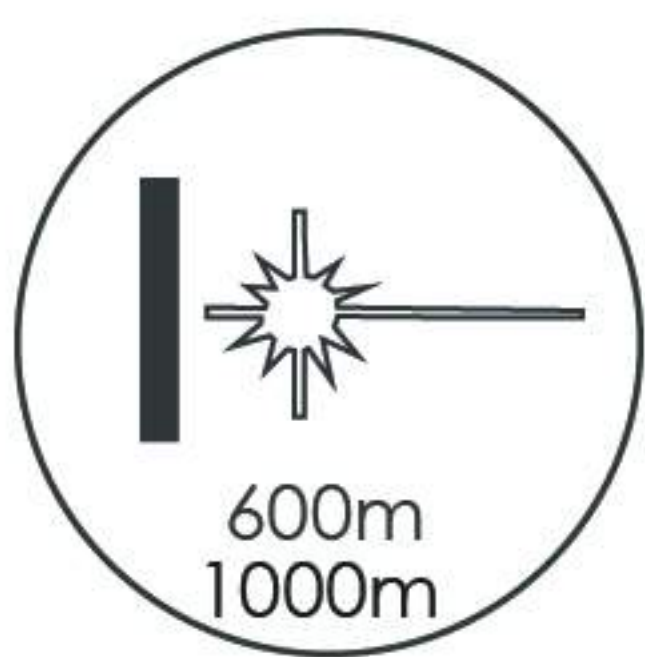
## High Precision TOTAL STATION

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.

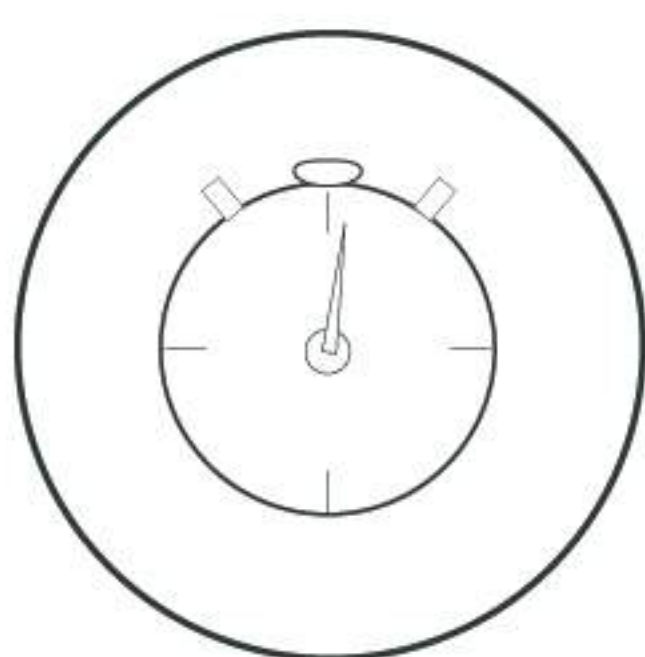
R25/R25LR comes standard with integrated onboard field software, a complete suite of applications, and an external controllers can be linked to Stonex R25/R25LR, through the Bluetooth™ wireless connection: no limitation will stop your working process. Road software module is included as standard in each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



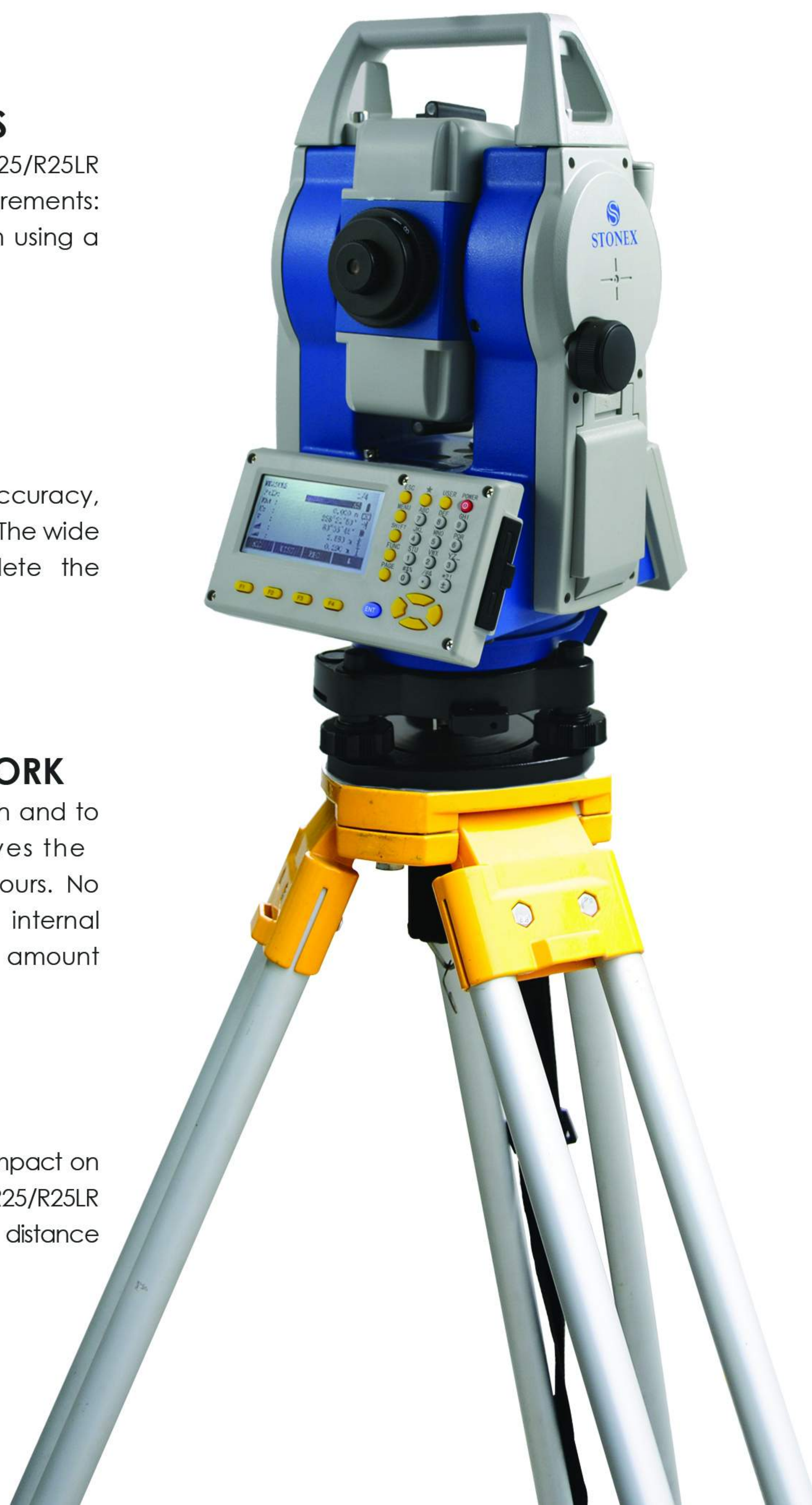
### ONE DAY OF CONTINUOUS FIELD WORK

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

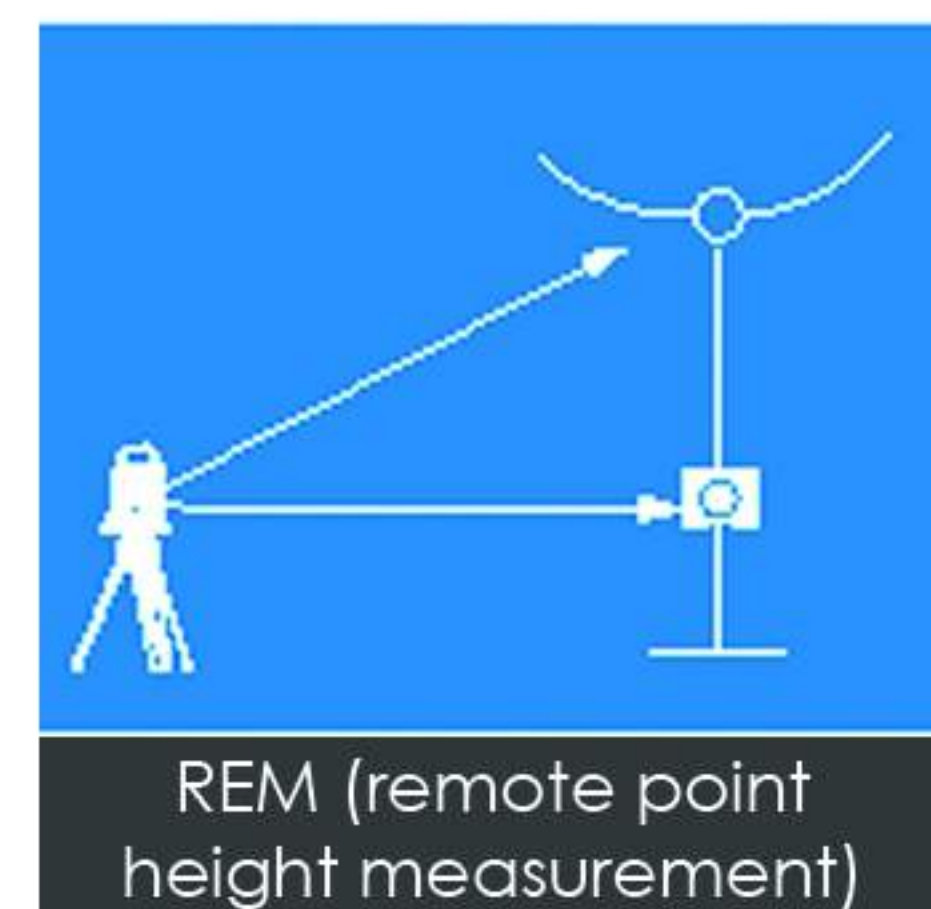
## The total station with endless drives

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.



REM (remote point height measurement)

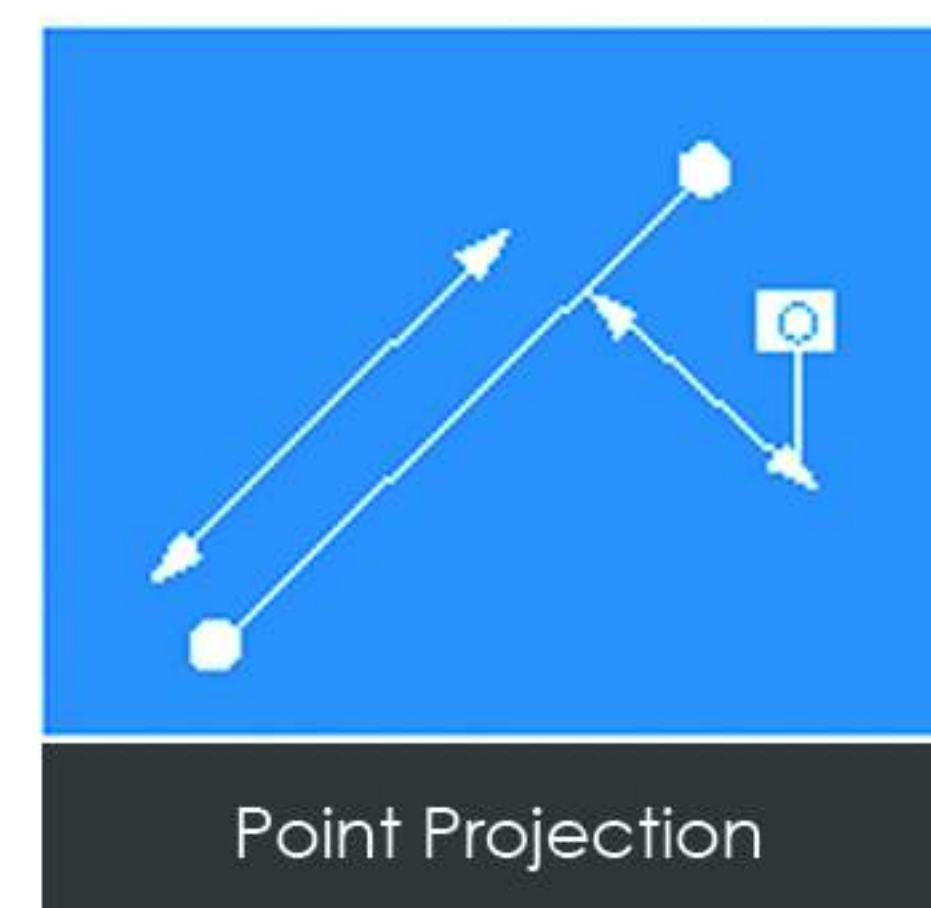


Road Staking Out Measurement

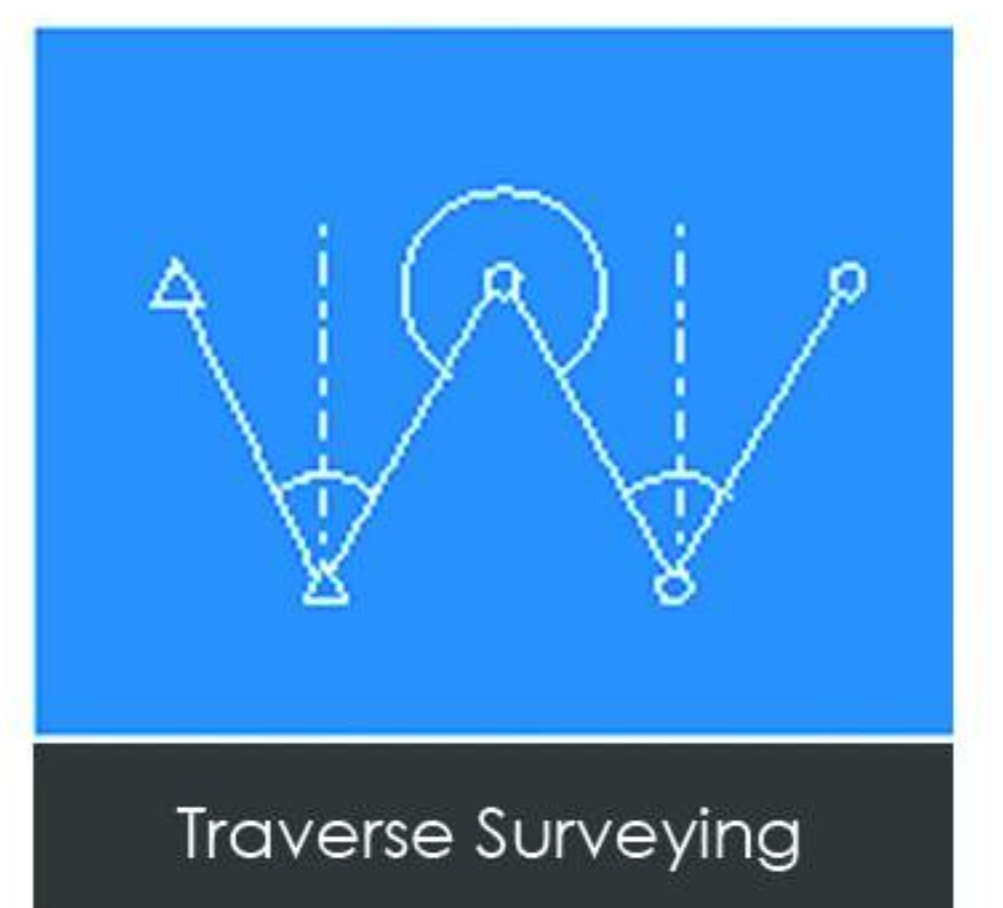


### AUTOMATIC 2 AXIS COMPENSATION

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.



Point Projection

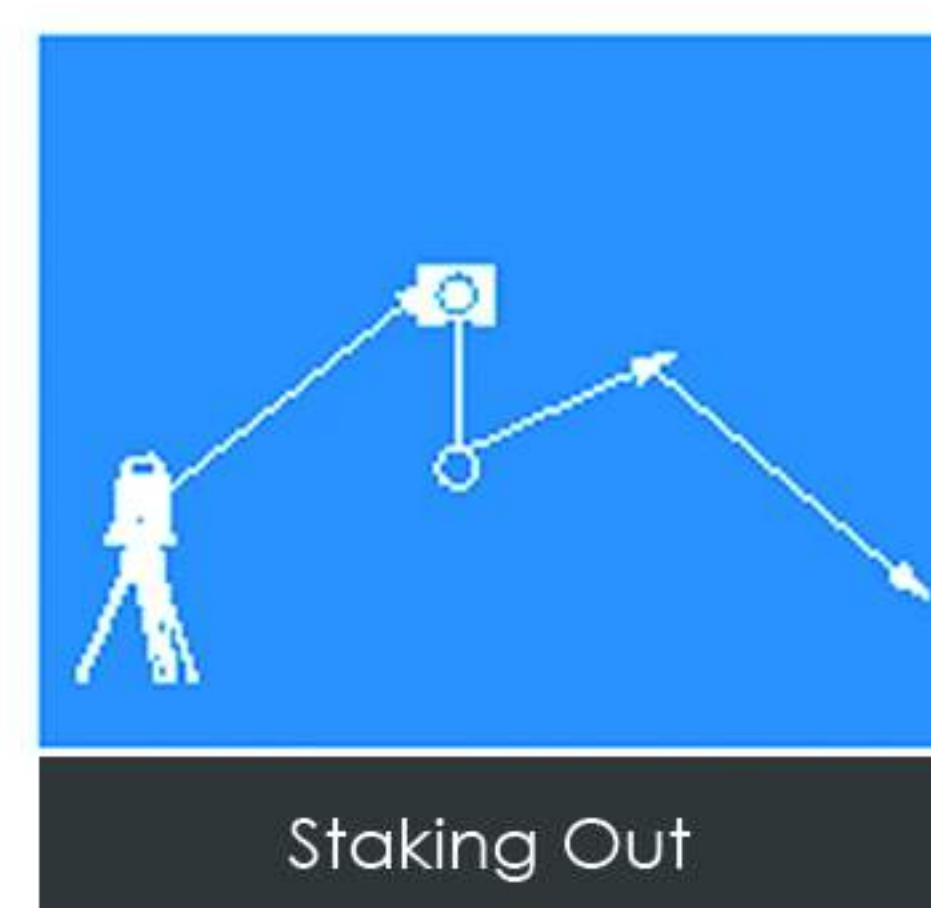


Traverse Surveying

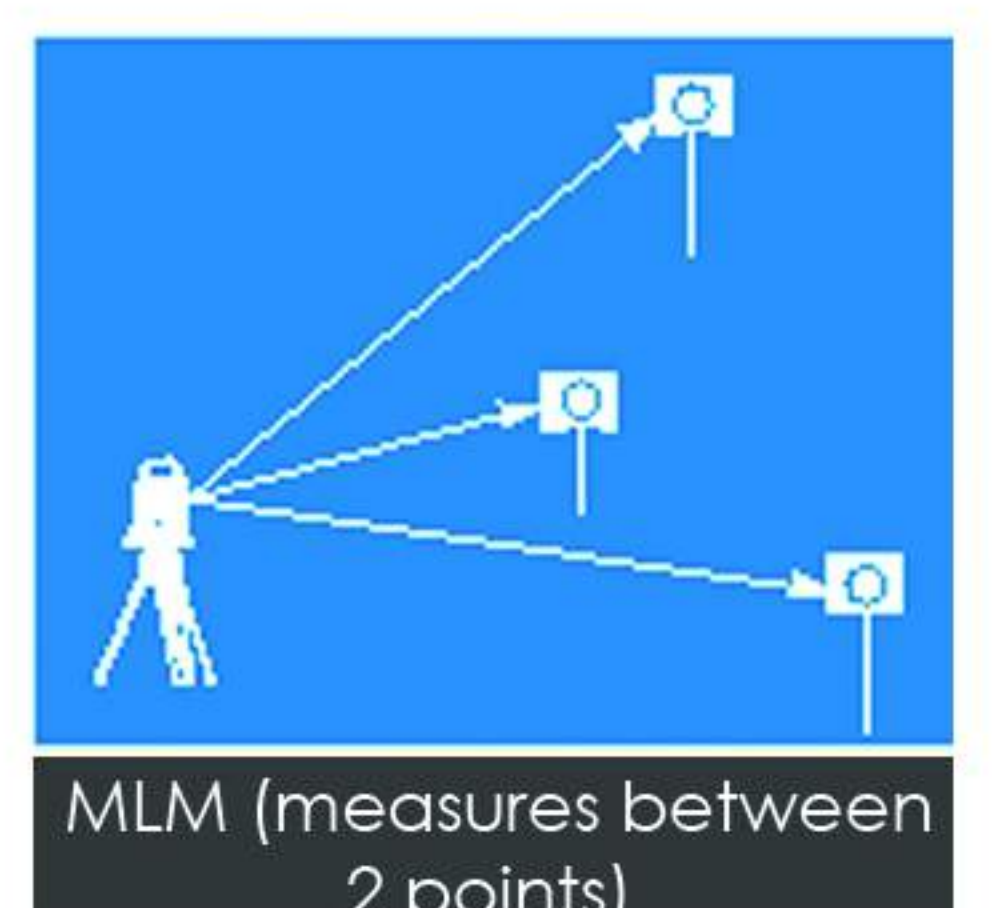


### WIDE RANGE OF COMMUNICATION OPTIONS

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.



Staking Out



MLM (measures between 2 points)



# 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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