STONEX

R180 Monitoring

Highly precise
Robotic Total Station

cube suite

R180

Highly precise Robotic Total Station

The R180 Monitoring is a high-precision, high-speed Android-based robotic total station. It is available with an angular accuracy of 0.5", making it suitable for any application and user requirement.

R180 Monitoring is equipped with a high-performance EDM, enabling high-precision prism measurements with an accuracy of 0.8 mm + 1 ppm and a maximum range of up to 6 km. In reflectorless mode, the instrument measures distances up to 1000 m.

The instrument features a rotation speed of 180°/sec. Its quietness and smoothness in searching and rotating on prisms are among its most notable and appreciated features.
Powered by the Android operating system, the R180 Monitoring allows users to browse online and interact with the touchscreen interface in a simple and intuitive way.

HIGH PRECISION AND PROFESSIONAL RESULTS

This top-tier instrument is available with an angular accuracy of 0.5".
This feature ensures outstanding performance in applications requiring the highest level of measurement precision.

AUTOMATIC PRISM CENTERING

The robotic total station is equipped with APC (Automatic Prism Centering) technology, enabling rapid and precise prism detection and centering at distance of up to 3000 m.

HIGH-PERFORMANCE EDM

The R180 Monitoring is equipped with a high-performance EDM, enabling high-precision prism measurements with an accuracy of 0.8 mm + 1 ppm and a maximum range of up to 6 km. In reflectorless mode, the instrument measures distances up to 1000 m.

FAST AND QUIET MOTORS

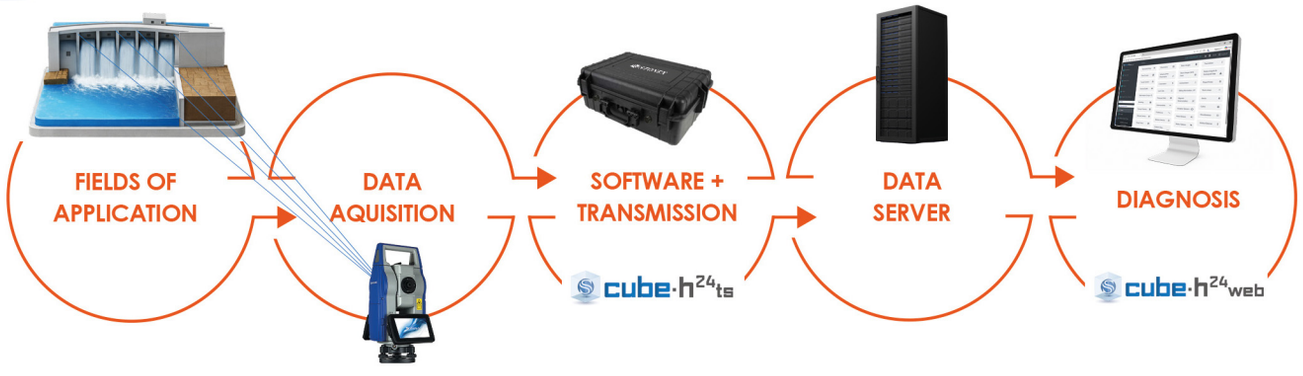
The R180 Monitoring features Tdrive motor technology, providing a high rotation speed of 180°/sec, making it one of the most performant instruments in its class. Not only is it fast, but it is also remarkably quiet, with noise levels that are virtually imperceptible.

ANDROID ON BOARD

R180 Monitoring is equipped with an onboard Android operating system, enabling simple and intuitive management and connectivity. Thanks to the onboard TS Connector, the user can connect to the instrument in multiple ways, such as via serial interface, Bluetooth, or through an Internet connection using the integrated GSM module.

MONITORING

cube·h24



Cube-h24 is a suite of software design for monitoring applications, it gathers information about a chosen site and allows surveyors and engineers to remotely evaluate the collected data. This software is developed for Microsoft Windows and Linux OS, it offers the possibility to download, manage, and process the data collected thanks to the use of one or more sensors, in the monitoring site.

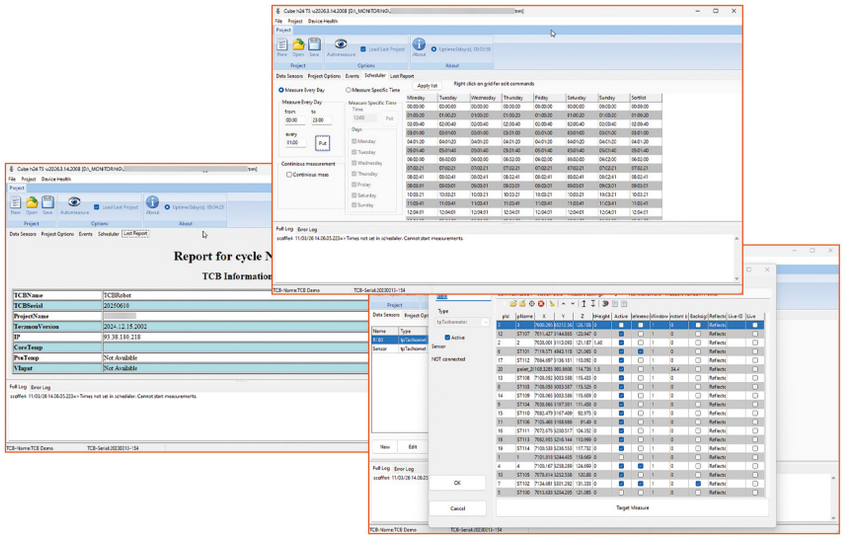
The presence of a Web interface enriches the functionality of Cube-h24, allowing the user to configure working parameters, check and publish the calculation results. This software will help operators, providing the best functions for data transferring, graphical visualization, and alarm system management.

Strength:

- Multi Operation System
- Very light application
- Multi language
- Suitable for period or continuous operation
- Full support for Total station different brand

Main features:

- TS connections (BT and serial cable)
- Multi Stationing strategies
- Multi measurement setting
- Schedulers
- Data upload to server
- Remote control Alarm and Report



R180 TECHNICAL FEATURES

ANGLE MEASUREMENT

Accuracy[1]	0.5”
Reading system	Absolute four-quadrant
Display Resolution	0.1”
Angle Units	DEG 360°/GON 400/MIL 6.400

TELESCOPE

Magnification/ Field of view	30x / 1°30’
Tube length	164.5 mm
Minimum focus distance	1.5 m
Objective aperture	Ø 45 mm
Laser pointer	Red light, coaxial

TILT SENSOR

Type	Dual-axis liquid-electric sensor
Compensation range/accuracy	± 3.0’/1”

DISTANCE MEASUREMENT RANGE[2]

Standard prism mode	6000 m[3]
Reflectorless[5]	1000 m[4]

DISTANCE MEASUREMENT ACCURACY[6]

Standard prism mode	0.8mm + 1ppm
Reflectorless	2mm + 2ppm

MEASUREMENT TIME

Standard prism mode (Tracking/Single)	<0.3 / 0.7 sec
Reflectorless	Typically 0.8 sec (>500 m, >5 sec)

DISTANCE MEASUREMENT

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

MOTORIZATION

Technology	Tdrive
Max rotation speed	180°/sec
APC-Target Aiming Range	4 - 3000 m
APC-Measurement Time	<10 sec
Fast360°-Target Aiming Range	1.5 - 600 m
Fast360°-Angle	H: 360° - V: 20°
AIM accuracy	± 1 mm @ 100 m[2]

LASER PLUMMET

Laser type	635nm semiconductor laser
Accuracy	1 mm/1.5 m
Spot	±1.8 mm/1.5 m

LEVEL VIAL SENSITIVITY

Circular level	8’/2mm

ENVIRONMENTAL CONDITIONS

Operating Temperature	-20°C +50°C (-4°F to 122°F)
Storage Temperature	-20°C +60°C (-4°F to 140°F)
Waterproof/Dustproof	IP65
Humidity	95% non-condensing

PHYSICAL SPECIFICATION

Dimensions	430 x 255 x 235 mm
Weight including battery and tribrach	9.3 Kg

POWER

Battery Voltage/Capacity/Type	14.4 V / 6400 mAh / Li-ion
Batteries number	2
Operating time	6 hours (one internal battery)[7]
Battery charger	100/240 V, charging time 4h

OTHER SPECIFICATIONS

CPU	MSM8953
Display	Two sides, 6” color LCD 720x1280 pixel touch screen
OS	Android
Memory	RAM: 3GB, ROM: 32GB
Interface	RS-232/Micro USB/ Bluetooth long range
Data transfer	4G (build-in), Bluetooth, WLAN, Hotspot
Camera	✓
Guide Light	✓
Temperature/Pressure	Customizable setting

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 Under optimal conditions on good surface
6 Standard deviation based on ISO 17123-4
7 Battery duration depends also on display brightness

STONEX AUTHORIZED DEALER

STONEX®
Viale dell’Industria 53 - 20037 Paderno Dugnano (MI) - Italy
Phone +39 02 78619201
www.stonex.it | info@stonex.it