

GeoMax Totalstation ZTS600 Series



GeoMax

Company Profile

GeoMax is an internationally active company developing, manufacturing and distributing quality surveying instruments. GeoMax provides a comprehensive portfolio of integrated instruments for the surveying, mapping and construction industries. Both occasional and professional users are addressed with GeoMax's easy-to-use, yet highly productive, range of Total Stations, GPS, Lasers, Optical and digital levels.

GeoMax is part of the Hexagon Group, Sweden, a global technology group with strong market positions within measurement technologies. Hexagon is the world leader in multidimensional measurements within the macro and micro segments of the measurement and positioning market. The famous international companies within the Hexagon Group have delivered since more than 150 years precision products and solutions to the measurement industry. This technology is supported by a comprehensive sales and service network covering all continents with over 100 branches.

The close cooperation within the Hexagon Group grants GeoMax's access to state of the art development and production facilities in Europe, America and Asia. This enables GeoMax to focus on delivering products that "work when you do" by optimizing quality and productivity. Through a continually growing distribution, GeoMax products are available in Europe, Asia and the Middle East delivering outstanding price-to-performance.





Complete Basket

Works when you do!

At GeoMax we understand that you work in demanding environments and require excellent price-to-performance without compromising quality, that's why we build products that "Work when you do!".



Reflectorless Distance Measurement

Never again will inaccessible points be a problem. With GeoMax's high accuracy reflectorless measurement technology points up to 350m can be measured with ease. The extra small EDM footprint ensures you maximum accuracy whilst significantly improving productivity.



Easy to learn – Simple to use

Intuitive design makes operating GeoMax products a breeze. Simply turn on and you can start working immediately. The full numeric keyboard ensures optimized usability and productivity. Coding is simple and fast, with a single button push points are ready for direct input to CAD.



Absolute encoder

Immediately upon power on, GeoMax displays the current angle. Intelligent absolute encoders save you time by not requiring any complex initialisation procedures, simply turn on and start working. Even after changing batteries, or powering on after a break, the angle is known and you're ready for work.



Laser plummet

Never again will centring over a point be difficult. With GeoMax's laser plummet, centring is simple. The bright laser beam is easily visible and eliminates time consuming procedures required with an optical plummet. You win by saving time at every set-up.



Quadruple-axis compensation

With advanced electronic compensators, GeoMax instruments are always level and collimation errors corrected. You can be sure of maximum reliability with both horizontal and vertical angles.



Complete system

GeoMax not only provides you with a highly productive instrument, but also with a complete set of accessories to meet your demanding tasks. With everything in one box, GeoMax "Works when you do!".



Data transfer

Once you've finished with your field work, the job is not necessarily complete. GeoMax provides PC software together with the instrument that allows you to transfer data to other instruments and office software packages with ease.



Built for all environments

With the design criteria, "Works when you do!" GeoMax products are built to withstand all environmental conditions. With complete sealing, protection caps on connectors, a rubber handle for secure grip and extensive factory tests, you can be sure that GeoMax "Works when you do!".



Total Confidence

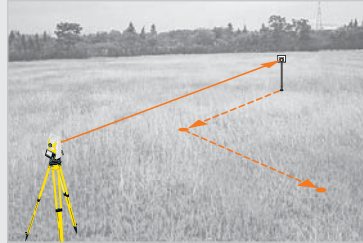
Works when you do!

At GeoMax we understand that your daily tasks vary greatly, that's why we've created a number of easy-to-use applications to guide you through every day. From setting-up, measuring, staking and checking, you can be certain that GeoMax "Works when you do!".



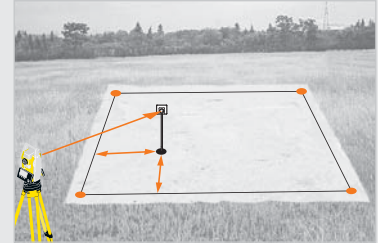
Set-up with Orientation

When setting-up on a known point, determining orientation could never be easier. You simply measure any combination of directions and distance in one or two faces to known points. Once complete, orientation is known and surveying can quickly begin.



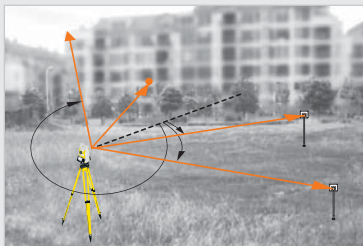
Setout

No matter if you're using manually entered coordinates, or coordinates read directly from a file, setout has never been so easy. With simple user guidance you'll be quickly complete with one point and moving to the next.



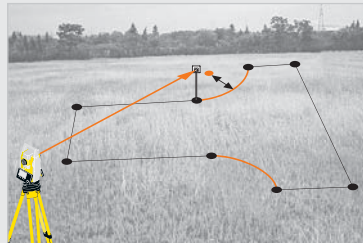
Construction

With large graphical displays the staking of your construction site has never been so easy. The location of the instrument, prism, and point to be staked are conveniently shown in relation to the construction line. You'll complete construction staking easier and faster than ever before.



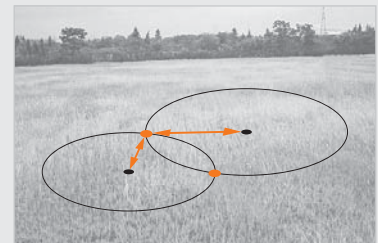
Set-up with Resection

Simply set-up the instrument anywhere and measure any combination of directions and distances in one or two faces to known points. With the simple push of a key, your station coordinates and orientation are calculated and surveying can immediately begin.



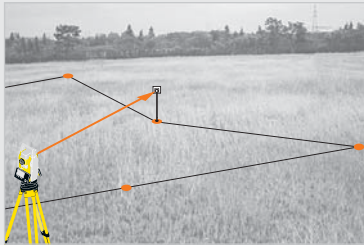
Reference Line and Arc

Regardless of whether you're staking or checking a reference line or arc you'll be amazed at the flexibility. Entry of reference objects is simple and can be easily assigned parallel offsets or rotations to exactly meet your demanding needs.



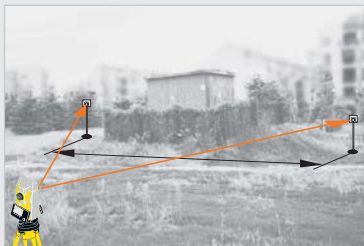
COGO Routines

Coordinate Geometry (COGO) offers you a wide variety of calculation functions. Calculate points that are immediately ready to be staked out by inverse, traverse, intersection using any combination of directions, distances or lines. Complete flexibility ensures that all of your needs are covered.



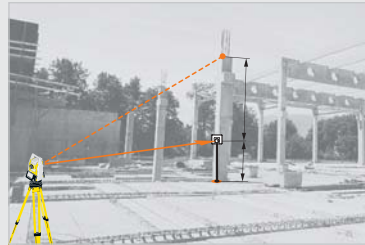
Area (3D) & Volume

With a complete freedom, you can either measure points, select previously measured points or manually enter points. Once points are selected, the simple push of a button determines the area, volume and perimeter of the plan and slope surfaces.



Missing Line

At any time you can instantly determine the distance, grade, azimuth and height difference between any two points. Either using the last two measured points, or selecting a base point and determining ties to other points, or traversing between point pairs, determining ties is a breeze.



Remote Height

The Remote Height application allows you to easily determine the height of a point when you cannot measure a distance to the point directly. Simply measure a base point either above or below the remote point and then measure a direction to the remote point. The height of the remote point is then automatically computed.



Two Prism Offset

Often situations arise when you cannot measure a point directly. Such situations are easily overcome using a hidden point rod. Simply place one end of the rod on the hidden point and measure to both reflectors. The coordinates of the hidden point are automatically computed as if it was observed directly.



ZTS600 Series

Technical Data



| | |
|------------------------------|---|
| GeoMax ZTS603/5/7 | Distance Measurement on Reflector |
| GeoMax ZTS602SR/3/5/7 | Distance Measurement on Reflector Reflectorless Distance Measurement (200 m Standard Range SR) |
| GeoMax ZTS602LR/3/5 | Distance Measurement on Reflector Reflectorless Distance Measurement (350 m Long Range LR) |

Angle measurements (Hz, V)

| | |
|----------------------------------|---------------------|
| Method | Absolute continuous |
| Display resolution | 1" |
| Standard deviation (ISO 17123-3) | 2", 3", 5", 7" |

Telescope

| | |
|---------------|----------------------|
| Magnification | 30x |
| Field of view | 1° 30' (26 m / 1 km) |
| Minimum focus | 1.7 m |
| Reticle | illuminated |

Compensator

| | |
|------------------|-----------------------------|
| System | Quadruple-axis compensation |
| Working Range | ± 4' |
| Setting accuracy | 0.5", 1", 1.5", 2" |

Distance Measurement on Reflector

| | |
|--|---|
| Measuring range with circular prism | 3'500 m |
| Measuring with reflective foil (60 mm x 60 mm) | 250 m |
| Accuracy (Fine/Quick/Tracking) | 2 mm + 2 ppm / 5 mm +2 ppm / 5 mm + 2 ppm |
| Measuring time (Fine/Quick/Tracking) | 2.4 sec / 0.8 sec / 0.15 sec |

Reflectorless Distance Measurement

| | |
|---------------------------------|------------------------------------|
| Range with white target (SR/LR) | 200 m / 350 m |
| Range with circular prism | >7'500 m |
| Accuracy | 3 mm + 2 ppm (>500 m 4 mm + 2 ppm) |
| Measuring time | 3.0 – 6.0 sec |

Communication

| | |
|-----------------|---------------|
| Internal memory | 10'000 points |
| Interface | RS232 |

Operation

| | |
|---------|---|
| Display | 160 x 280 pixels, 8 lines x 30 characters |
| Keys | Alphanumeric keys and 4 functions keys |

Laser plummet

| | |
|----------|---|
| Type | Laser point, brightness adjustable in steps |
| Accuracy | 1.5 mm at 1.5 m instrument height |

Environmental conditions

| | |
|---------------------------------|-----------------------------------|
| Operating / Storage Temperature | -20° C ~ +50° C / -40° C ~ +70° C |
| Protection to dust and water | IP54 |

Weight

| | |
|---------------------------------------|--------|
| Weight including battery and tribrach | 5.4 kg |
|---------------------------------------|--------|

Battery

| | |
|--|-------------------------|
| Voltage/Capacity | ZBA-101 6V 4200mAh |
| Operating period / Numb. of measurem. with ZBA-101 | 6 hours / approx. 9'000 |

Distance meter (Reflector Mode):

Laser class 1 in accordance with IEC 60825-1 resp. EN 60825-1

Laser plummet:

Laser class 2 in accordance with IEC 60825-1 resp. EN 60825-1

Distance meter (Reflectorless Mode SR/LR):

Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1

Illustrations, descriptions and technical specifications are not binding and may change. Printed in Switzerland.
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