

# GeoMax Total Station

## Zoom20 Series



# GeoMax

## About Us

GeoMax is an internationally active company developing, manufacturing and distributing quality construction and surveying instruments. We provide a comprehensive portfolio of integrated instruments for the construction, surveying and mapping 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 tech-

nology group with strong market positions within measurement technologies. Hexagon is the world leader in multi-dimensional 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 us 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.



**GEOMAX**  
Part of Hexagon Group

**HEXAGON**  
precision in everything





Zoom20

# Efficient. Fast. Reliable.

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!".



## accXess™ EDM Technology

GeoMax's accXess EDM Technology delivers outstanding reliability and class leading accuracy with and without a prism in even the most difficult conditions. Reflectorless accXess EDM Technology is available as a2 (250 m) and a4 (400m) on the GeoMax Zoom20 series.



## Onboard Software

Easily control your data with the flexible and easy-to-use onboard software. Areas and Volumes, Reference Elements, CoGo and more can be accessed using the large graphic display. Import and Export in the format you want for total control and flexibility.



## Laser plummet

With GeoMax's laser plummet, centring is simple. The bright laser beam is easily visible and eliminates time consuming and error prone procedures required with an optical plummet. You win at every set-up.



## Complete system

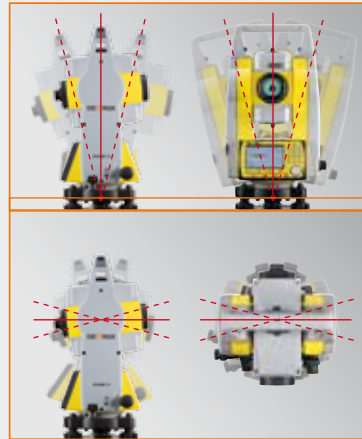
GeoMax not only provides you with a highly productive instrument, but also with a complete set of accessories to meet your demanding tasks. With everything in one box, GeoMax "Works when you do!".



# Zoom20

## Quadruple-axis compensation

With advanced electronic compensators, GeoMax instruments are always level and collimation errors corrected. Quadruple-axis compensation is standard on all GeoMax total stations which means you can be sure of maximum reliability with both horizontal and vertical angles.



## Built for all environments

The Zoom20 withstands the toughest environments. With the optional Polar certification the Zoom20 is individually tested at  $-30^{\circ}$  C. With our extensive factory tests, you can be sure that GeoMax "Works when you do!".



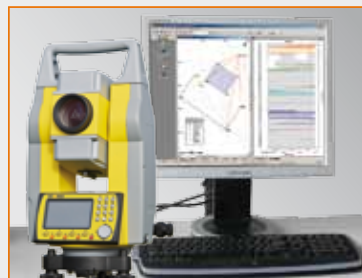
## Powerful Li-ion batteries

The GeoMax Li-Ion battery which lasts up to 36 hours is one of the standard accessories that comes with the Zoom20 series. The ability to work with standard accessories reduces your total cost of ownership.



## Data transfer

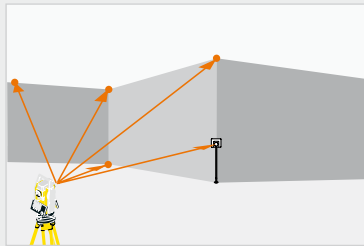
Once you've finished with your field work, the job is not necessarily complete. GeoMax provides PC software together with the instrument that allows you to transfer data to other instruments and office software packages with ease.



Works when you do

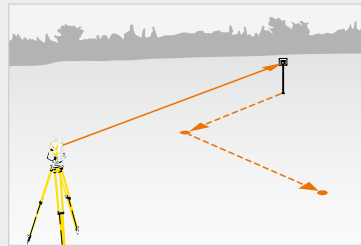
# Powerful Applications

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



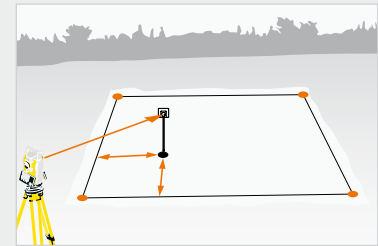
## Survey

The powerful survey App allows you to collect data quickly and accurately. Flexible coding and display formats delivers data the way you want it. Directly export surveys with codes into CAD.



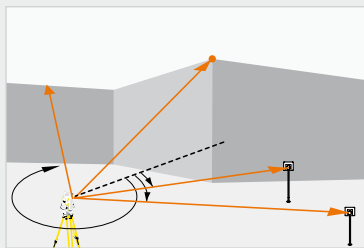
## Set Out

With accurate and easy-to-use guidance you'll be quickly complete with one point and moving to the next.



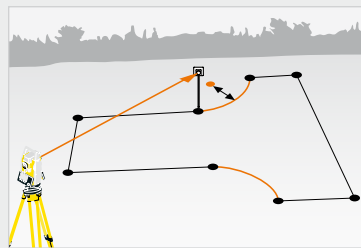
## Construction

With large graphical displays the staking of your construction site has never been so easy. You'll complete construction staking easier and faster than ever before.



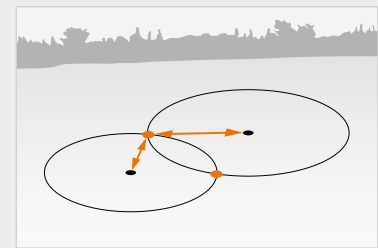
## Set-up with Resection

With the simple push of a key, your station coordinates and orientation are calculated and surveying can immediately begin.



## Reference Element

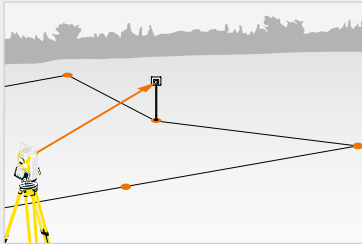
Regardless of whether you're staking or checking a reference line or arc you'll be amazed at the flexibility.



## CoGo Routines

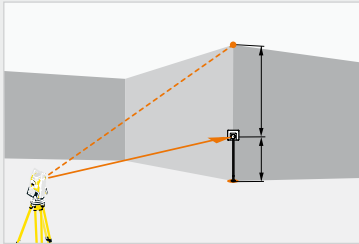
Easily calculate and determine points out in the field with the CoGo App. This powerful App allows you to calculate inverse, intersection, offset and line extension in a few easy steps.

# Zoom20



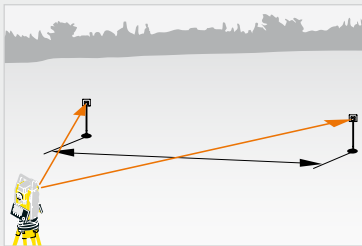
## Area (3D) & Volume

The area (3D) and volume app determines the area, volume and perimeter of the plan and slope surfaces at a simple button press.



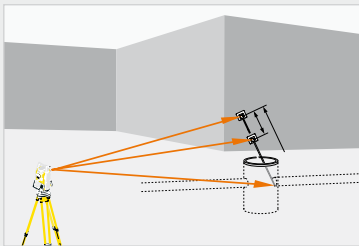
## Remote Elevation

The Remote Height application allows you to easily determine the height of a point when you cannot measure a distance to the point directly. The height of the remote point is automatically computed.



## Missing Line Measurement

Determine the distance, grade, azimuth and height difference between any two points. Determining ties is a breeze.



## Two Prism Offset

Situations arise when you cannot measure a point directly. With Two Prism Offset 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.



Works when you do

# Zoom20 Series

## Technical Data



<b>GeoMax Zoom20 7", 5", 3", 2"</b>	Distance Measurement on Reflector
<b>GeoMax Zoom20 7", 5", 3", 2" accXess2</b>	Distance Measurement on Reflector 250 m Reflectorless Distance Measurement
<b>GeoMax Zoom20 7", 5", 3", 2" accXess4</b>	Distance Measurement on Reflector 400 m Reflectorless Distance Measurement

### Angle measurements (Hz, V)

Method	Absolute continuous
Display resolution	1"
Standard deviation (ISO 17123-3)	2", 3", 5", 7"
<b>Telescope</b>	
Magnification	30x
Field of view	1° 30' (26 m / 1 km)
Minimum focus	1.7 m
Reticle	3 level reticle illumination
<b>Compensator</b>	
System	Quadruple-axis compensation
Working Range	± 4'
Setting accuracy	0.5", 1", 1.5", 2"
<b>Distance Measurement on Reflector</b>	
Measuring range with circular prism	3'500 m
Measuring range with 3 prisms	5'400 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 (Tracking/Quick/Fine)	0.15 sec / 0.8 sec / 2.4 sec
<b>accXess™ EDM Reflectorless Distance Measurement</b>	
accXess4 Range with white target	400 m
accXess2 Range with white target	250 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
<b>Communication</b>	
Internal memory/storage	10'000 points (incl. measur., coords & codes)
Interface	USB and RS232
<b>Operation</b>	
Display	160 x 280 pixels, 8 lines x 30 characters
Keys	Alphanumeric keys and 4 functions keys
Operating system	Windows® Embedded CE operating system
<b>Laser plummet</b>	
Type	Laser point, brightness adjustable in steps
Accuracy	1.5 mm at 1.5 m instrument height
<b>Environmental conditions</b>	
Optional Polar version tested to	-30° C
Operating / Storage Temperature	-20° C ~ +50° C / -40° C ~ +70° C
Protection to dust and water	IP54
<b>Weight</b>	
Weight including battery and tribrach	5.07 kg
<b>Battery</b>	
Voltage/Capacity	ZBA400 7.4V 3800mAh
Operating period with continuous angle measurement	36 hours
Operating period with measurement every 30 seconds	9 hours (>1'000 measurements)

**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 accXess™):** Laser class 3R in accordance with IEC 60825-1 resp. EN 60825-1

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