FOCUS 30 Total Station

Improve your Field Efficiency with a Robotic Total Station

Provided by Xpert Survey Equipment
Click Spectra Precision Focus 30 for Product Info and Updated Pricing
Featuring World Class Spectra Precision Field Software

Introducing the powerful Spectra Precision® FOCUS 30 Total Station. This fully robotic motorized solution provides improved speed, accuracy and precision in measurement. A robotic instrument moves the power of the observer from the instrument to the range pole improving the quality of your work.

all robotic instruments include:

- Motorized drive system at the instrument
- A tracking sensor to track the range pole and prism
- A communication connection between the instrument and range pole and...
StepDrive
The speed of observation and precise positioning of the FOCUS 30 robotic total station is provided by patented StepDrive™ technology. StepDrive controls the horizontal and vertical motion of the motors, so there is no need for traditional motion locks. Using the motorized drives it is possible to precisely turn to, and repeat angle measurements. This results in quick and reliable measurements which substantially increases your staking productivity.

LocknGo
The Robotic and LockNGo™ FOCUS 30 models include a tracking sensor that uses LockNGo technology enabling the instrument to constantly lock onto the prism. The benefit of LockNGo technology is the ability to follow the prism at all times and reduces downtime from not having to re-point the instrument on every observation.

Communication Link
To maintain contact between the FOCUS 30 instrument and the remote observer with the range pole and prism, the robotic solution must include a communication link. The FOCUS 30 uses an integrated 2.4 GHz radio modem as does the Spectra Precision Ranger 3 data collector. The 2.4 GHz radio modems provide interference free robotic data communications. Once your robotic communications have been established you can control all the functions of the FOCUS 30 from the range pole as you move through the job site making measurements. This makes it possible for a single surveyor to perform high accuracy stakeout, layout or topographic surveys by themselves. From high-order control surveys to topographic data collection or fast-paced construction layout, you can rely on a FOCUS 30, even in harsh outdoor conditions.

FOCUS 30 and Survey Pro
Combined with Spectra Precision Survey Pro™ field software, providing you with world class software solutions for any surveying situation. An example of these features includes a unique robotic software technology that can be used when associating the FOCUS 30 with a low-cost GPS receiver and Survey Pro software. This combination of technologies allows the user to take full advantage of the Spectra Precision GeoLock technology to keep locked on target.

The Spectra Precision GeoLock technology
Offered in Survey Pro this technique allows a robotic total station to perform an aided search for an optical target using an initial GPS position. The remote instrument can then be directed towards the robotic roving operator using the GPS position and a subsequent search is quickly performed to re-acquire the target at the robotic rover. This technique greatly reduces wasted time, improving your field work efficiency.

Features
- Survey Pro™ and Layout Pro™ software
- GeoLock™ GPS assist technology
- 2", 3", and 5" angle accuracy
- StepDrive™ motion technology
- LockNGo™ advanced tracking technology
- Windows CE Touchscreen
- Ultra lightweight at only 5 kg (11 lb)
- 2.4 GHz interference-free radio
- Spectra Precision Ranger 3XR data collector

The FOCUS 30 solution is best described as Simply Powerful. Packaged in a modern, sleek, and streamlined design, it is easy-to-use, affordable, and tough.
## FOCUS 30 Total Station

### Performance

**Accuracy**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Deviation based on ISO 17123-3</th>
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<tbody>
<tr>
<td>±2” (0.6 mgon)</td>
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**Angle reading (least count display)**

- Standard: ±1” (0.1 mgon)
- Tracking: ±2” (0.5 mgon)

### Distance measurement

**Accuracy to Prism**

- Standard: ±3” (±3.3 gon)
- Tracking: ±5” (±6.6 gon)

**Accuracy Reflectoless Mode**

- Standard: ±3” (±3.3 gon)
- Tracking: ±5” (±6.6 gon)

### Measuring time

- Prism Standard: 2.4 sec.
- Prism Tracking: 0.5 sec.
- Reflectoless Tracking: 0.7 sec.

**Shortest possible range**

- Prism: 0.4 m (13.12 ft)
- 3 prisms: 0.7 m (2.30 ft)

**Range Reflectoless Mode**

- Good: ±5” (±100 mgon)
- Normal: ±3” (±60 mgon)
- Difficult: ±1” (±20 mgon)

### eDM Specifications

- Material: alleles
- Magnification: 31x
- Eye relief: 60 mm
- Eye distance: 30 mm

**Telescope**

- Magnification: 31x
- Aperture: 50 mm (1.96 in)
- Field of view: 10’
- Focusing distance: 4” (9.4 ft to 122 ft)

**Operating temperature**

- ±20 °C to +50 °C

**Dust and water proofing**

- IP 25

### Power supply

- Li-Ion, 11.1 V 5.0 Ah

### Operating temperature

- –4 ºF to +122 ºF

### Environmental

- Dust and water proofing: IP 25

### Communications

- External foot connector: USB cable connection
- Internal power supply: Bluetooth

### Weight

- Instrument: 5.0 kg (11.0 lb)
- Internal battery: 0.3 kg (0.66 lb)

### GPS/GeoLock Specifications

- Robotic Operation
  - Maximum Robotic Range: 300 m to 800 m (984 ft to 2,625 ft)
  - Search Distance: 300 m to 800 m (984 ft to 2,625 ft)

- Point precision at 200 m (656 ft)
  - <2 mm (0.007 ft)

### Data Collected

- Control Units fixed on alidade
- Phase Shift

### Coarse Leveling

- Electronic coarse leveling range: ±3” (±3.3 gon)
- Circular level in tripod: ±1” (±20 mgon)

### Drive System

- Spectra Precision StepDrive system
- Rotation time maximum: 30”/sec (100 goni/sec)
- Rotation time from Face 1 to Face 2: 3.7 sec.

### Contact Information

- [Spectra Precision Division](https://www.spectraprecision.com)
- [StepDrive](https://www.spectraprecision.com)
- [aSi-PacIFIC](https://www.spectraprecision.com)
- [eUOPe](https://www.spectraprecision.com)
- [eLeST](https://www.spectraprecision.com)
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