

# Leica FlexLine TS02 Total Station



## Leica FlexLine TS02 Total Station – Ideal Today, perfect Tomorrow

The ideal Total Station for standard measurement tasks. Designed especially for mid-to-low accuracy applications. It comes complete with a standard set of application software that guide you through your daily work. If more convenient, use *Bluetooth®* wireless technology to connect any data collector and use the Software which best suits your task and familiarity.

Whether you measure to prisms, or prefer direct measurements to objects, the choice is always yours. A selection of EDM options delivers exactly what you need.

With a FlexLine TS02 Total Station you'll complete your measurement tasks today and tomorrow, faster and more reliable than ever before.



### **Bluetooth® Option**

- Cable-free connection
- License-free communication
- Select any familiar data collector and Software



### **USB Option**

- Trouble-free USB plug-and-play technology
- USB memory stick for flexible data transfer
- mini-USB for fast data transfer



### **Alpha-numerical Keyboard Option**

- Rapid entry of numbers, letters and special characters
- Minimizes errors
- Enhance productivity

- when it has to be **right**

**Leica**  
Geosystems

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| Angle Measurement (Hz, V)                 |                                               |          |
|-------------------------------------------|-----------------------------------------------|----------|
| Accuracy (Standard deviation ISO-17123-3) | 3" (1 mgon), 5" (1.5 mgon), 7" (2 mgon)       | optional |
| Method                                    | Absolute, continuous, diametrical             |          |
| Display resolution                        | 0.1" / 0.1 mgon / 0.01 mil                    |          |
| Compensation                              | Quadruple axis compensation (Setting On, Off) |          |
| Compensator Setting accuracy              | 1", 1.5", 2"                                  |          |



| Distance Measurement with Reflector                          |                                                                                                         |  |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--|
| Range Round prism GPR1                                       | 3'500 m                                                                                                 |  |
| Range Reflective tape (60 mm x 60 mm)                        | 250 m                                                                                                   |  |
| Accuracy / Measurement time (Standard deviation ISO-17123-4) | Standard: 1.5 mm+2 ppm / typ. 2.4 s, Fast: 3 mm+2 ppm / typ. 0.8 s, Tracking: 3 mm+2 ppm / typ. <0.15 s |  |



| Distance Measurement without Reflector                       |                                                              |          |
|--------------------------------------------------------------|--------------------------------------------------------------|----------|
| Range (90% reflective)                                       |                                                              |          |
| FlexPoint                                                    | 30 m                                                         | optional |
| PinPoint – Power                                             | >400 m                                                       | optional |
| PinPoint – Ultra                                             | >1000 m                                                      | optional |
| Accuracy / Measurement time (Standard deviation ISO-17123-4) | 2 mm+2 ppm <sup>2</sup> / typ. 3 s                           |          |
| Laser dot size                                               | At 30 m: approx. 7 mm x 10 mm, At 50 m: approx. 8 mm x 20 mm |          |



| Data storage / Communication |                                                                                  |          |
|------------------------------|----------------------------------------------------------------------------------|----------|
| Extended Internal memory     | Max.: 24'000 fixpoints, Max.: 13'500 measurements                                |          |
| USB memory stick             | 1 Gigabyte, Transfer time 1'000 points/second                                    | optional |
| Interfaces                   | Serial (Baudrate 1'200 to 115'200)<br>USB Type A and mini B, Bluetooth® Wireless | optional |
| Data formats                 | GSI / DXF / LandXML / user definable ASCII formats                               |          |



| Emitting Guide Light for Stake Out (optional)  |               |          |
|------------------------------------------------|---------------|----------|
| Working Range (average atmospheric conditions) | 5 m – 150 m   | optional |
| Positioning accuracy                           | 5 cm at 100 m | optional |



| General                                     |                                                                                           |          |
|---------------------------------------------|-------------------------------------------------------------------------------------------|----------|
| Telescope                                   |                                                                                           |          |
| Magnification                               | 30 x                                                                                      |          |
| Resolving power                             | 3"                                                                                        |          |
| Field of view                               | 1° 30' (1.66 gon) / 2.7 m at 100 m                                                        |          |
| Focusing range                              | 1.7 m to infinity                                                                         |          |
| Reticle                                     | Illuminated, 5 brightness levels                                                          |          |
| Keyboard and Display                        |                                                                                           |          |
| Display                                     | Graphics, 160 x 280 pixels, illuminated, 5 brightness levels                              |          |
| Keyboard                                    | Standard keyboard<br>Alpha-numerical keyboard, Second keyboard                            | optional |
| Operating System                            |                                                                                           |          |
| Windows CE                                  | 5.0 Core                                                                                  |          |
| Laserplummet                                |                                                                                           |          |
| Type                                        | Laser point, 5 brightness levels                                                          |          |
| Centering accuracy                          | 1.5 mm at 1.5 m Instrument height                                                         |          |
| Battery                                     |                                                                                           |          |
| Type                                        | Lithium-Ion                                                                               |          |
| Operating time                              | approx. 20 hours <sup>1</sup>                                                             |          |
| Weight                                      |                                                                                           |          |
| Total Station including GEB211 and tribrach | 5.1 kg                                                                                    |          |
| Environmental specifications                |                                                                                           |          |
| Temperature range (operation)               | -20° C to +50° C (-4° F to +122° F)<br>Arctic Version -35° C to 50° C (-31° F to +122° F) | optional |
| Dust & splash proof (IEC 60529)             | IP55                                                                                      |          |
| Humidity                                    | 95%, non condensing                                                                       |          |



| FlexField Onboard Software |                                                                                                                                                                                                               |          |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| Application programs       | Topography (Orientation & Surveying), Stake Out, Resection, Height Transfer, Construction, Area (Plan & Surface), Volume calculation, Tie Distance (MLM), Remote Height, Hidden Point, Offset, Reference Line |          |
| Application programs       | Reference Arc, Reference Plane, COGO, Road 2D                                                                                                                                                                 | optional |

<sup>1</sup> Single Measurement every 30 second at 25° C with GEB221. Battery time may be shorter if battery is not new.

<sup>2</sup> Range >500 m 4 mm+2 ppm



**Total Quality Management – our commitment to total customer satisfaction.**

**Guide light (EGL):**  
LED class 1 in accordance with IEC 60825-1 resp. EN 60825-1

**Distance meter:**  
(PinPoint R400 / R1000):  
Laser class 3R 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:**  
(Prism Mode)  
Laser class 1 in accordance with IEC 60825-1 resp. EN 60825-1

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