Leica FlexLine TS03/TS07
Manual Total Stations

Work faster: measure more points per day due to faster measurement and stakeout procedures (endless drives, trigger key, drives on both sides, pinpoint EDM and more), supported by our comprehensive and user-friendly Leica FlexField software.

Use it trouble-free: increase productivity and minimise downtime by relying on instruments that simply work and come with a global service and support network.

Choose products that are built to last: FlexLine operates with the same high level of quality even after years of use under harsh conditions (like mud, dust, blowing rain, extreme heat and cold).

Control your investment: reliability, speed and accuracy ensure a lower investment over the product lifetime and a higher resale value.

Save time with AutoHeight: measure, read and set the instrument height automatically with this revolutionary feature in the FlexLine TS07 (optional). Errors are minimised and the setup process onsite is faster.

The Leica FlexLine TS03 and TS07 high-quality, manual total stations are based on a proven product concept that has been revolutionising the world of measurement and survey for nearly 200 years. The instruments are equipped with a comprehensive application-based software package - Leica FlexField software - that enables most survey and stakeout tasks to be carried out easily and efficiently. The new FlexLine manual total stations work reliably and deliver accurate results even in harsh environments.
Leica FlexLine TS03/TS07

ANGULAR MEASUREMENT

<table>
<thead>
<tr>
<th>Accuracy Hz and V</th>
<th>2'' / 3'' / 5''</th>
<th>1'' / 2'' / 3'' / 5'' / 7''</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display resolution</td>
<td>0.1'' (0.1 mgon)</td>
<td></td>
</tr>
<tr>
<td>Quadruple axis compensation</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Compensator setting accuracy</td>
<td>0.5'' / 1'' / 1.5'' / 2''</td>
<td>✓</td>
</tr>
<tr>
<td>Compensator range +/− 4''</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electronic level resolution</td>
<td>2''</td>
<td>✓</td>
</tr>
<tr>
<td>Circular level sensitivity</td>
<td>6 / 2 mm</td>
<td></td>
</tr>
</tbody>
</table>

DISTANCE MEASUREMENT

<table>
<thead>
<tr>
<th>Range</th>
<th>1.5 m to 3.500 m</th>
<th>&gt; 10.000 m</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prism</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Prism GPR1 (Long Range mode)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Non-Prism / Any surface</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>R500</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>R1000</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Accuracy / Measurement time

<table>
<thead>
<tr>
<th>Single prism</th>
<th>Precise+ / Once: 1 mm + 1.5 ppm (typical 2.4 s)</th>
<th>Precise/Fast / Once/Fast: 2 mm + 1.5 ppm (typical 2 s)</th>
<th>Tracking / Continuously: 3 mm + 1.5 ppm (typical &lt; 0.15 s)</th>
<th>Average: 1 mm + 1.5 ppm</th>
<th>Long Range mode</th>
<th>&gt; 4 km: 5 mm + 2 ppm (typical 2.5 s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Prism / Any surface</td>
<td>0 m - 500 m: 2 mm + 2 ppm (typical 3 - 6 s)</td>
<td>&gt; 500 m: 4 mm + 2 ppm (typical 3 - 6 s)</td>
<td>At 30 m: 7 mm x 10 mm</td>
<td>At 50 m: 8 mm x 20 mm</td>
<td>At 100 m: 16 mm x 25 mm</td>
<td></td>
</tr>
</tbody>
</table>

Telescope

| Magnification | 30x | |
| Resolving power | 3' |
| Focusing range | 1.55 m / 5.08 ft to infinity |
| Field of view | 1°30' / 1.66 gon / 2.7 m at 100 m |

GENERAL

<table>
<thead>
<tr>
<th>Display and keyboard</th>
<th>3.5'' (inch), 320 x 240 px QVGA, grayscale, 28 keys</th>
<th>3.5'' (inch), 320 x 240 px QVGA, colour, touch, 28 keys</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd keyboard</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Key illumination</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Power management

<table>
<thead>
<tr>
<th>Exchangeable Lithium-ion battery</th>
<th>Operating time with GE8B1</th>
<th>Operating time with GE8B3</th>
<th>Battery charging time with</th>
</tr>
</thead>
<tbody>
<tr>
<td>GXL341 charger for GE8B1 / GE8B3</td>
<td>up to 30 h</td>
<td>up to 15 h</td>
<td>3 h 30 min / 3 h</td>
</tr>
<tr>
<td>GXL341 charger for GE8B1 / GE8B3</td>
<td>6 h 30 min / 3 h 30 min</td>
<td>6 h 30 min / 3 h 30 min</td>
<td></td>
</tr>
</tbody>
</table>

Data storage

| Internal memory | 2 GB Flash | ✓ |
| Memory card | SD card 1 GB or 8 GB | ✓ |
| USB memory stick | 1 GB | ✓ |

Processor

| TI OMAP4430 1GHz Dual-core ARM® Cortex™ A9 MPCore™ | Operating system – Windows EC7 | ✓ |

Interfaces

| RS232, USB device | Bluetooth®8, WLAN9 | ✓ |

Guide Light (EGL)

| Mobile Data sidecover: LTE-Modem for internet access | ✓ |
| Mobile Data sidecover: LTE-Modem for internet access | ✓ |

Laser plummet

| Laser plummet (Laserclass 2) | Plumb line deviation: 1.5 mm at 1.5 m instrument height | ✓ |
| Non-Prism / Any surface | Diameter of laser point: 2.5 mm at 1.5 m instrument height | ✓ |
| Non-Prism / Any surface | ✓ |

AutoHeight module for automatic instrument height measurement (Laserclass 2)

| AutoHeight module for automatic instrument height measurement (Laserclass 2) | Distance accuracy: 1.0 mm (1 Sigma) | ✓ |
| AutoHeight module for automatic instrument height measurement (Laserclass 2) | Distance range: 0.7 m to 2.7 m | ✓ |
| Weight | 4.3 kg | 4.3 - 4.5 kg |

Environmental specifications

| Environmental specifications | Working temperature range: -20°C to +50°C | ✓ |
| Environmental specifications | Arctic version: -35°C to +50°C | ✓ |
| Environmental specifications | Dust / Water (IEC 60529) / Humidity: IP66 / 95%, non-condensing | ✓ |
| Environmental specifications | Military Standard 810G, Method 506.5 | ✓ |

Legend:

1. 1° (0.3 mgon), 2° (0.6 mgon), 3° (1.1 mgon), 5° (1.5 mgon), 7° (2 mgon)
2. Angular accuracy / Compensator setting accuracy: 3°0.5° / 5° (0.2 mgon), 2°/1° / 1° (0.5 mgon), 3°/1.5° / 1.5° (0.5 mgon), 7°/2° / (0.7 mgon)
3. R500: Kodak gray 90% reflective (1.5 m to >500 m), Kodak gray 18% reflective (1.5 m to >500 m)
4. R1000: Kodak gray 90% reflective (1.5 m to >500 m), Kodak gray 18% reflective (1.5 m to >500 m)
5. (a) Face 1 standard, (b) Face 1 standard, face II optional
6. Distance/angle measurement every 30 seconds
7. 5 PIN Lemo-0 for power, communication and data transfer
8. For communication and data transfer, WLAN range up to 200 m
9. For internet access, communication and data transfer, WLAN range up to 200 m
10. Storage temperature: -40°C to +70°C

Leica Geosystems AG
Heinrich-Wild-Strasse
9435 Heerbrugg, Switzerland
+41 71 727 31 31

Microsoft Corporation. Other trademarks and trade names are those of their respective owners.