

Leica iCON iCB50 & iCB70

Manual total stations for construction



LEICA iCON iCB50 & iCB70 Manual Total Stations

- Go digital: Leica Geosystems manual construction total stations lead the way to the no-strings and no-tapes approach in your construction project
- Ease of use: simple to learn and easy to master, the Leica iCB50 and iCB70 help you to complete projects more efficiently with minimal training
- Understanding Construction: Leica Geosystems iCON portfolio offers software and hardware solutions specifically designed for any task in the Building and Heavy Construction segment
- Mobile data: featuring an integrated 4G modem, the iCB70 allows mobile data transfer directly between the design office and the instrument on site.

The new generation of Leica Geosystems' manual construction total stations facilitate your move from conventional analogue layout methods to modern digital workflows. Layout more points per day on your construction project and achieve the productivity and accuracies demanded by the building construction industry. Work with digital design data directly on the instrument, including fully rendered models in IFC file format.

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- when it has to be **right**

Leica
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PART OF
HEXAGON

Leica iCON iCB50 & iCB70



iCB50



iCB70

ANGULAR MEASUREMENT

| | | | |
|-------------------|---|---------|--------------|
| Accuracy Hz and V | Absolute, continuous, diametrical ¹ | 2" / 5" | 1" / 2" / 5" |
| | <ul style="list-style-type: none"> ■ Display resolution: 1" (0.3 mgon) ■ Quadruple axis compensation ■ Compensator setting accuracy²: 0.5" / 1.5" ■ Compensator range: +/- 4' (+/- 0.07 gon) ■ Electronic level resolution: 2" ■ Circular level sensitivity: 6' / 2 mm | ✓ | ✓ |

DISTANCE MEASUREMENT

| | | | |
|-----------------------------|--|---|----------------|
| Range | <ul style="list-style-type: none"> ■ Prism (GPR1, GPH1P): 1.5 m to 3.500 m ■ Reflective Tape 60 mm x 60 mm > 250 m | ✗ | ✓ |
| | Non-Prism / Any surface <ul style="list-style-type: none"> ■ R500³ | ✓ | ✓ ⁴ |
| Accuracy / Measurement time | Single prism <ul style="list-style-type: none"> ■ Single: 1 mm + 1.5 ppm (typical 2.4 s) ■ Continuous: 3 mm + 1.5 ppm (typical < 0.15 s) Reflective tape 60 mm x 60 mm <ul style="list-style-type: none"> ■ Single mode: 3 mm + 2 ppm (typical < 2 s) | ✗ | ✓ |
| | Non-Prism / Any surface <ul style="list-style-type: none"> ■ 0 m - 500 m: 2 mm + 2 ppm (typical 3 - 6 s) | ✓ | ✓ ⁴ |
| Laser dot size | <ul style="list-style-type: none"> ■ At 30 m: 7 mm x 10 mm ■ At 50 m: 8 mm x 20 mm ■ At 100 m: 16 mm x 25 mm | ✓ | ✓ ⁴ |
| Telescope | <ul style="list-style-type: none"> ■ 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

| | | | |
|---|--|--|--|
| Display and keyboard | | 5" (inch), 800 x 480 px WVGA, colour, touch, 22 keys | 5" (inch), 800 x 480 px WVGA, colour, touch, 22 keys |
| | 2 nd keyboard | • | • |
| | Key illumination | ✓ | ✓ |
| Operation | <ul style="list-style-type: none"> ■ Endless drives for Hz & V ■ Trigger-Key: user definable with 2 functions | ✓ | ✓ |
| Power management | Exchangeable Lithium-Ion battery⁵ <ul style="list-style-type: none"> ■ Operating time with GEB361 ■ Operating time with GEB331 | up to 18 h up to 9 h | up to 18 h up to 9 h |
| | Battery charging time with <ul style="list-style-type: none"> ■ GKL341 charger for GEB361 / GEB331 ■ GKL311 charger for GEB361 / GEB331 | 3 h 30 min / 3 h 6 h 30 min / 3 h 30 min | 3 h 30 min / 3 h 6 h 30 min / 3 h 30 min |
| | External supply voltage <ul style="list-style-type: none"> ■ Nominal voltage 13.0 V DC & 16 W max | ✓ | ✓ |
| Data storage | <ul style="list-style-type: none"> ■ Internal memory: 2 GB Flash ■ Memory card: SD card 1 GB ■ USB memory stick: 1 GB | ✓ | ✓ |
| Interfaces | <ul style="list-style-type: none"> ■ RS232⁶, USB device ■ Bluetooth⁷ ■ WLAN⁸ ■ Mobile Data sidecover: LTE-Modem for internet access | ✓ ✓ ✗ ✗ | ✓ ✓ ✓ • |
| Laser plummet (Laserclass 2) | Accuracy <ul style="list-style-type: none"> ■ Plumb line deviation: 1.5 mm at 1.5 m instrument height ■ Diameter of laser point: 2.5 mm at 1.5 m instrument height | ✓ | ✓ |
| Field software | iCON build field software | iCON build (incl. Sketching, Layout Points, Layout Lines, Checks, As-built) | iCON build plus (incl. Sketching, Layout Points, Layout Lines, Checks, As-built, Volumes, Cut/Fill, Slopes, Stakeout) |
| | <ul style="list-style-type: none"> ■ Software options | iCON build plus (Volumes, Cut/Fill, Slopes, Stakeout), Layout Objects, Hidden Point, Tilted Plane, 2Face and Set, Roading, Drill Pattern, MC Calibration | Autodesk BIM360, Leica ConX, Layout Objects, Hidden Point, Tilted Plane, 2Face and Set, Roading, Drill Pattern, MC Calibration |
| Weight | | 4.5 kg | 4.5 kg |
| Environmental specifications ⁹ | <ul style="list-style-type: none"> ■ Working temperature range: -20°C to +50°C ■ Dust / Water (IEC 60529) / Humidity: IP66 / 95%, non-condensing ■ Military Standard 810G | ✓ ✓ ✓ | ✓ ✓ ✓ |

✓ = Included • = Optional ✗ = Not available

Legend:

1. 1" (0.3 mgon), 2" (0.6 mgon), 5" (1.5 mgon)
2. Angular accuracy / Compensator setting accuracy: 1" / 0.5" (0.2 mgon), 2" / 0.5" (0.2 mgon), 5" / 1.5" (0.5 mgon)
3. R500: Kodak gray 90% reflective (1.5 m to >500 m), Kodak gray 18% reflective (1.5 m to >200 m)
4. iCB70 Laserclass 2 model is Prism mode only, without reflectorless measurement and laser pointer
5. Distance/angle measurement every 30 seconds

6. 5 PIN Lemo-0 for power, communication and data transfer
7. For communication and data transfer
8. For internet access, communication and data transfer, WLAN range up to 200 m
9. Storage temperature: -40°C to +70°C



Laser radiation, avoid direct eye exposure.
Class 3R laser product in accordance with IEC 60825-1:2014.

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