# LEICA DNA digital levels

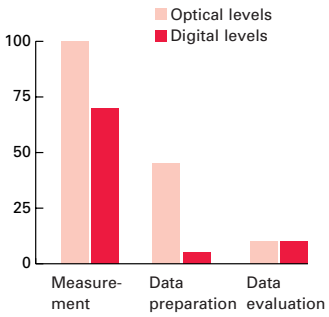

***LEICA DNA digital levels –***
***Advantages that move you ahead***

Leica
Geosystems

# *LEICA DNA digital levels –*
# *Advance by experience*

***It is here: the second generation of digital levels by Leica, the inventors of the first digital levels worldwide. Its modern exterior design, the ergonomics and the largest LC-display on the market, are reasons to be enthusiastic. Inside: cutting edge electronic technology, excellent optical and mechanical systems, the perfect integration of the proven concept of user friendly menu guidance taken from the TPS700 total stations.***

## *Advantages in numbers*




### *Save up to 50% in time*

***Experience shows that with Leica digital levels there is up to a 50% time saving when compared with conventional levels. The main reasons are the faster data capture preparation as well as the shorter time and safer means of data preparation, thanks to saving measured data on storage devices.***


### *Measuring without mistakes or fatigue*

***Leica digital levels measure and save the height and the distance to the staff at the press of a button, and calculate the height of the point. Advantage: no readings required, no copying or writing down and no calculation by hand.***

# LEICA DNA digital levels – Practical advantages

***Leica digital levels DNA10 and DNA03 cover the entire range of applications from the construction site to the 1st order levelling tasks. The practice oriented solutions in the integrated measurement programs, the large liquid crystal display and the alphanumeric keyboard help to keep track of your work, make it faster and more productive.***

### *Land surveys and line levelling*

Thanks to the extensively automated processes, the observer has been relieved of much of the work at the keyboard. Adjustable tolerance checks for the measured data add safety to the measurements taken.


During line levelling the clear menu guidance is outstanding. Important measured and process data is displayed at once, enabling checks of measured data and on the progress made.

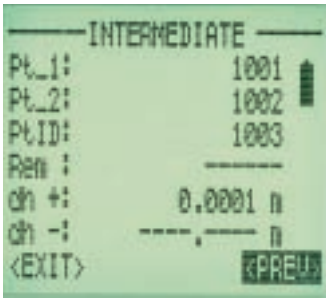
### *Area levelling*

All components required for an appropriate levelling are at your disposal. The program “Measure Only” is suited for elementary staff reading and distance measurements or to survey masses of points. In addition the Quick Code function provides for measurement and point coding in a single measuring process.

### *Levelling at construction sites*

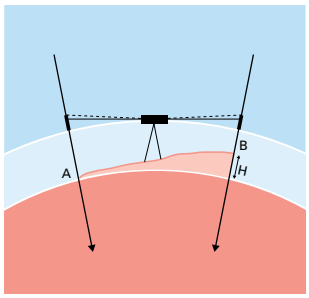
Height determination and stake out: Thanks to the easy-to-use measuring program "Measure & Record" the experienced construction site operator can quickly and reliably measure height differences, perform line levelling or stake outs.

Measure profile points or many intermediate points and the display "Point to Point" continuously provides the height difference between each measured point.




### *More practical advantages*

***Earth curvature correction:*** if this is activated in a Leica DNA digital level, then the measurements made are automatically free of the influence of the earth's curvature.




***Correction of collimation error***
Can be reliably determined and saved using the four integrated Check and Adjust procedures it can be entered manually.

***Measurement modes:*** Leica DNA digital levels can make: single measurements, average or median out of multiple measurements, a default standard deviation, repeated single measurements.

***Reduced field of view:***
For a fine measurement a field of view of about 1.1° is required. This corresponds to 38cm per 20m of target distance.

***Data output format:***
For printouts similar to those used in field books. Up to four user formats can be stored in the instrument.

***Staffs and accessories:***
Leica Geosystems offers a rich palette of staffs and other accessories.

The DNA10 and DNA03 models are suited for mobile or stationary measurement configuration, where an external field computer collects and processes the data. External commands configure the instrument and trigger measurements.

### *Office and evaluation software*

***Leica Survey Office***
Is a program included in the delivery. It controls data exchange, the configuration of the instrument, creates code lists and stake out height lists and maintains the system software. A special feature is the creation of user defined output formats for a field book like data display.

***LevelPak-Pro***
LevelPak-Pro processes your levelling data in a professional manner. The optional program contains functions such as line calculation, adjustment and the creation of reports. The data and results are managed in a data bank.

# *LEICA DNA digital levels –*
# *Advance at a glance*


***Keep all information in sight***

The generous LC-display presents all important measured data at a glance and shows the next step to take. You always have the workflow under control.

***Double your data safety***

From now on, save your work automatically in the internal memory and additionally, after the measurements have been taken, on a PC-card. In this way, measured data can easily be loaded into a computer.

***Optimal operating comfort***

The alphanumeric keyboard and the operating concept adapted from the TPS700 total stations provide the highest levels of efficiency at work, optimum comfort and rapid familiarization.

***Extensive range of applications and reliability in two classes of accuracy***

The DNA10 and DNA03 provide a solution for all jobs of height determination for topographic and construction surveys, up to first order levelling and monitoring.

# LEICA digital levels at a glance

| Technical data | LEICA DNA03 | LEICA DNA10 |
|---|---|---|
| Area of use | – Quick measurements of heights, height differences and stake outs<br>– I. and II. order levelling<br>– Precision measurements | – Quick measurements of heights, height differences and stake outs<br>– Cadastral levelling<br>– Technical levelling |
| **Accuracy** | Standard deviation height measurement per 1km double-run (ISO 17123-2) | |
| Electronic measurements: | | |
| with Invar staffs | 0.3mm | 0.9mm |
| with standard staffs | 1.0mm | 1.5mm |
| Optical measurements | 2.0mm | 2.0mm |
| Standard deviation distance measurement (electr.) | 1cm/20m (500ppm) | |
| **Range** | | |
| Electronic measurement | 1.8m – 110m | |
| Optical measurement | from 0.6m | |
| **Electronic measurement** | | |
| Resolution height measurement | 0.01mm, 0.0001ft, 0.0005inch | 0.1mm, 0.001ft |
| Time for single measurement | typically 3 seconds | |
| Measurement modes | Single, average, median, repeated single measurements | |
| **Measurement programs** | Measure & Record, staff height/distance<br>BF, aBF, BFFB, aBFFB | |
| **Coding** | Remark, Free code, Quick code | |
| **Data storage** | | |
| Internal memory | 6000 measurements or 1650 station | |
| Backup | PCMCIA card (ATA-Flash/SRAM)<br>SRAM compatible with Omnidrive MCR4 | |
| Online operations | GSI format via RS232 | |
| Data exchange internal memory | GSI8/GSI16/XML/flexible formats | |
| **Telescope magnification** | 24x | |
| **Compensator** | | |
| Type | Pendulum compensator with magnetic damping | |
| Slope range | ±10' | |
| Compensator setting accuracy | 0.3" | 0.8" |
| **Display** | LCD, 8 lines at 24 characters | |
| **Battery operated** | | |
| GEB111 | 12h operation | |
| GEB121 | 24h operation | |
| Battery adapter GAD39 | Alkaline battery, 6x LR6/AA/AM3, 1.5V | |
| **Weight** | 2.8kg (incl. battery GEB111) | |
| **Environmental conditions** | | |
| Working temperature | –20°C to +50°C | |
| Storage temperature | –40°C to +70°C | |
| Dust/water (IEC60529) | IP53 | |
| Humidity | 95%, non condensing | |

TQM
ISO 9001 / ISO 14001

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

For more information about our TQM program, ask your local Leica Geosystems agent.

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