

ND 5000

Digital readout for milling machines, drilling machines and lathes with up to three axes

The ND 5000 digital readout is suitable for use on manually operated milling and drilling machines, as well as on lathes with up to three axes. Due to the TTL encoder input, the LS 328 C and LS 628 C linear encoders with a display step of 5 µm are primarily used.

Design
The ND is designed for harsh shop environments. It features a sturdy aluminum housing and a splash-proof membrane keyboard.

With their intuitive and user-friendly interface, the ND digital readouts are particularly easy to operate. Everything you need to know for machining your workpiece is displayed on an easy to read 7-inch screen.

The symmetrical design of the ND ensures ergonomic operation. The ND digital readout's keyboard is conveniently accessible and its screen is easy to read.

Functions
The ND offers many useful functions for machining with manually operated machine tools. The most important functions are readily accessible directly through function keys. Soft keys with language-sensitive information in plain language enable context-sensitive operation.

Distance-to-go mode comes to your aid during positioning tasks. With it, you can easily and reliably arrive at the next position by simply moving the axes until the display reads zero.

Of course, the ND also offers special functions for milling and turning operations, such as:

- Hole patterns (linear, circular)
- Radius/diameter switching
- Sum display for the top slide

You can individually configure the display of the ND and save your settings in the user administration.

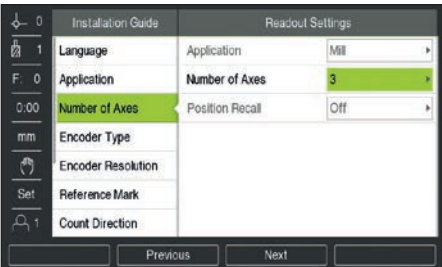
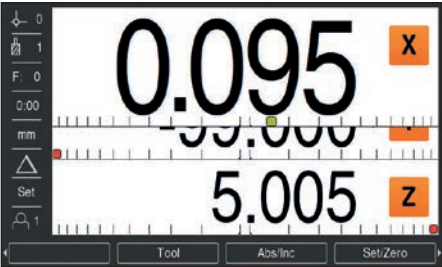
Data interface
A USB interface permits the import and export of parameters and tables to memory or to a PC.



Dynamic zoom
The axis currently in motion can be graphically highlighted. In "dynamic zoom" mode, the position value is enlarged to its maximum size based on the number of digits. This greatly improves readability—especially from far away.

Installation guide
When you turn on the digital readout for the first time, the ND supports you with its installation guide, which leads you step by step through the most important settings until the device is ready for operation.

Day/night switching
You can also switch the screen of the ND to a light or dark background depending on the amount of ambient light at the machine.



	ND 5023
Axes	Up to 3 axes
Encoder inputs	TTL
Input frequency	≤ 500 kHz
Signal period	2 µm, 4 µm, 10 µm, 20 µm, 40 µm, 100 µm, 10240 µm, 12800 µm
Line count	Any
Display step ¹⁾	Linear axis: 1 mm to 0.0001 mm; 0.005 mm with LS 328 C/LS 628 C Rotary axis: 1° to 0.0001° (00° 00' 01")
Display	7-inch screen (15:9), resolution: 800 x 480 pixels for position values, dialog messages, data entry and graphical functions
Functions	• User administration and file management • 10 presets, 16 tools • Reference mark evaluation for distance-coded and single reference marks • Distance-to-go mode with nominal position input in absolute or incremental dimensions • Graphical positioning aid • Scaling factor • Integrated help system
For milling and drilling	• Calculation of positions for hole patterns (circular, linear) • Tool radius compensation • Cutting data calculator
For turning	• Freeze tool position during retraction • Sum display of axes in the top slide • Inclined top slide • Taper calculator
Error compensation	Linear (LEC) and segmented linear (SLEC) via up to 200 compensation points
Data interface	USB 2.0 Type C
Accessories	Single-Pos stand, Multi-Pos holder, mounting frame, protective cover, power cable
Power connection	AC 100 V to 240 V (±10 %); 50 Hz to 60 Hz (±5 %); ≤ 33 W
Operating temperature	0 °C to +45 °C (storage temperature: -20 °C to +70 °C)
Protection EN 60529	IP54; back panel: IP40
Mounting	Single Pos stand, Multi-Pos holder; fastening systems compatible with VESA MIS-D 100
Mass	≈ 1.7 kg

¹⁾ Depends on the signal period or line count of the connected encoder