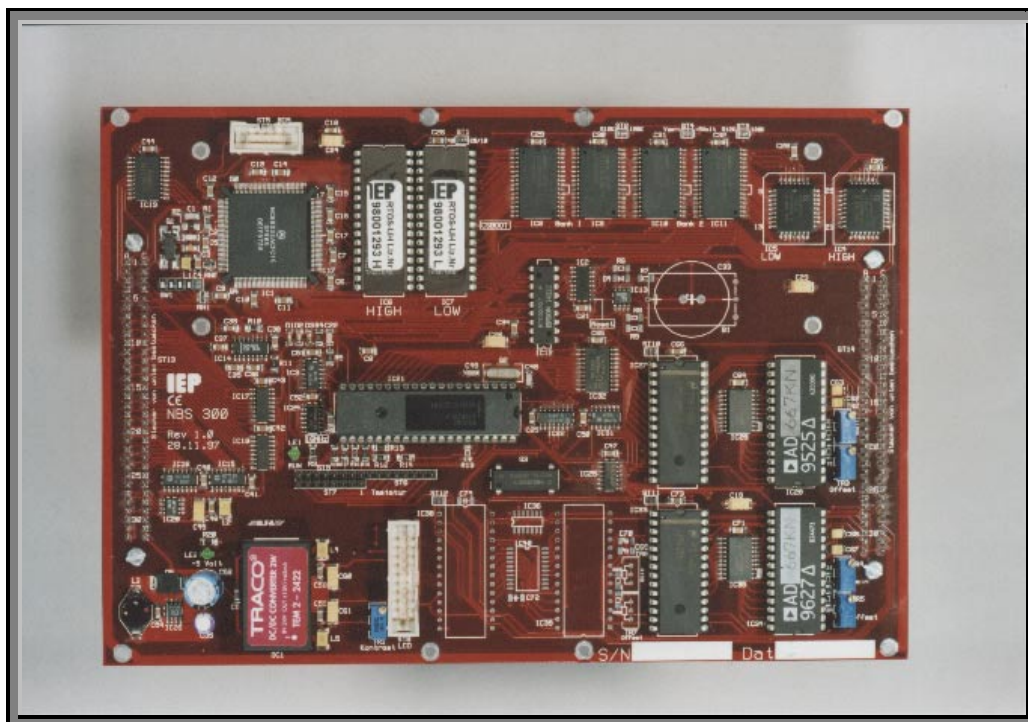


NBS300

Motor control and operating



The **NBS300** is a building block for CNC machinery. 3 controllable axis, 16 digital inputs and 20 digital outputs as well as 2 analog voltage inputs are provided for connections to the machinery. A 7x8-matrix-keyboard, an interface for LCD-displays and two serial interfaces allow to connect operating elements.

- 3 axis motor control with PID, inputs for incremental encoders A+B+index, analog setpoint outputs ± 10 V, 12 bits resolution
- 2 additional analog inputs 0...5 V, 12 bit resolution
- Digital inputs for limit switches, push-buttons etc.
- Digital outputs for lamps, pumps, valves etc.
- Matrix keyboard and LCD display interface
- serial interfaces to connect external systems

NC-operating

Features

3 axis

Each of the three channels of the **NBS300** provides a digital PID controller with a cycle time of 341 μ s. The controllers operate independent from the main CPU. As process value, the motor position is acquired with a resolution of 32 bit by an incremental encoder input. The setpoint is calculated according to a PID-algorithm using the process value and the command value, given by the main CPU.

All axis can be operated independently. Either position or velocity is given as command value by the main CPU. To follow pathes, the synchronisation of multiple axis has to be provided by the main CPU.

Limit switches Digital outputs Analog inputs

16 digital inputs and 20 digital outputs give access to digital process signals. E.g. limit switches and push buttons can be read in as well as valves and lamps can be switched.

2 analog voltage inputs with a resolution of 12 bit serve for the acquisition of additional process values, so e.g. pressures or temperatures can be accounted for in the control algorithm.

Operating

Graphical displays allow easy operating and can show the state of the machinery immediately.

For operator input, a connector usable for 7x8 matrix keyboards is provided. Using customized keyboards, the **NBS300** can be made to fit to different types of machinery.

Efficiently

The processor MC68332 of the **NBS300** provides enough computational capabilities even for demanding control algorithms. Even large programs can be stored into 2 MB SRAM, 1 MB Flash and 1 MB EPROM.

The **NBS300** comes with the realtime operating system RTOS-UH. For application development, the high level programming languages ANSI-C and PEARL-90 or the PLC programming environment CoDeSys are available.

One serial interface RS-232 is provided for data exchange e.g. with CAD-systems.

The **NBS300** requires a power supply of 18...36 V_{DC}.

Order reference

Article number	Description
NBS300-1	1 axis
NBS300-2	2 axis
NBS300-3	3 axis