WinPC-NC function matrix

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From version 2 on WinPC-NC is available in three different variants

Light Low cost solution for CNC beginners with direct LPT printer port controlling. Able to run typical applications like engraving, milling of modelling parts, PCB drilling and more.

Economy Control program with direct LPT printer port output and enhanced functions like tangentional cutting, fully 3D abilities, mass production support, more import filters for common NC formats, free definable macros, synchronisation with external signals and more

Professional Full functional CNC control program with external axes controller cpu for all realtime tasks. Absolute reliable and stable for industrial applications and enhancable with optional peripheral modules like teachin keypad, 24V input/output signals, signal conditioner and converters. Special technological functions for laser cutting, automatic tool changer, digitizing sensor and much more.

	Light	***Economy***	***Professional***
Input/output signals and machine controlling			
Controlling the CNC machine	LPT (LPT1)	LPT (LPT1+LPT2)	serial axes controller
Input signals for limit and homing switches	5	10	up to 256
Additional outputs for drilling spindle, cooling, dispensing and more	4	8	up to 256
Motor currency, running signal, boost signal	✓	✓	✓
Inputs/outputs freely definable and assingable	✓	✓	✓
Industrial conform 24V signals	-	-	✓
Converters and adapters for clock/direction signals	-	-	✓
Analoge output 0-10V for spindle speed	-	8Bit/LPT2 - PWM	0-10V
Ready signal for safety control, toggle output >200Hz	✓	✓	✓
Realtime ability with Windows	good	good	best
Dependant from background programs and processes under Windows	yes	yes	no
Maximum step rate (kHz)	12	24	40
Controlled axes	3 (XYZ)	4 (XYZ TABC)	4 (XYZ TABCU)
Hardware and operating system requirements			
Runs with Windows versions	2000/XP	2000/XP	all from Win95
Processor and clock frequency	Pentium/Athlon Celeron/Sempron >1GHz	Pentium/Athlon Celeron/Sempron >1GHz	from Pentium 2 with 266 MHz
Peripheral ports (onboard or ISA/PCI board)	LPT	LPT and USB	COM or USB-to-COM adapter
Parameter settings, adjustments to mechanical components			
Individual axes resolutions, steps and distance/revolution	✓	✓	✓
Speeds, acceleration and deceleration ramps for each axis	✓	✓	✓
Testing functions for mechanics and switches, motor tuning	✓	✓	✓
Backlash compensation	-	✓	✓
Several predefined ramp profiles	-	✓	✓
Synchronisation to different input signals	-	✓	✓
Loadable individual created ramp profiles	-	-	✓
Data formats and import filters			
HPGL, PLT	✓	✓	✓
Common drilling formats, Excellon, Sieb&Meyer	✓	✓	✓
G codes with subroutines and abs./rel. movements	-	✓	✓
Multicam 2D and 3D, extended HPGL	-	✓	✓
ISEL NCP	-	✓	✓
Postscript, vector informations, EPS/AI	-	✓	✓

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	Light	*Economy*	*Professional*
Program functions			
Intelligent look ahead for smooth movements without interruption	√	√	√
Integrated editor for creating and modifying NC files	√	√	√
Multi lingual, (ger, eng, fra, ita, esp, por, turk, pol available)	√	√	√
Graphical display, zooming, turning and mirroring of data	√	√	√
Works with NC files in unlimited size	√	√	√
Machine positioning simply to a mouse click	√	√	√
Manual movements step by step or per defined distance	√	√	√
File origin and parking positions definable by teachin	√	√	√
Different tool parameters to each color or tool	√	√	√
Tool change switchable or simulation	√	√	√
Definable dwell times at tool movements	√	√	√
Comfortable signal wizzard for assigning all signals to input/output lines	√	√	√
Z clipping at defined maximum tool depth	√	√	√
Automatic reload for NC file at modifications	√	√	√
Save last positions when working without homing switches	√	√	√
Special display of drilling jobs	√	√	√
Orientation of moving buttons swichable to adjust to machine	√	√	√
Contour smoothing function for perfect edges	√	√	√
Tool lift for Z axis, savety clearance for rapid movements	√	√	√
Independent scaling factors for each axis	√	√	√
Sppeds and positions in millimeters and inches per second or per minute	√	√	√
Mirroring and turning NC data	√	√	√
Realtime job display at jobs	√	√	√
Automatic identification of NC data	√	√	√
Tool colors and names free definable	√	√	√
Tool repetitions and Z axis feed	-	√	√
Surface block and sensor for automatic zero point definition	-	√	√
Free programmable 4th axis as U ABC T	-	√	√
Tool length measurement and compensation of differences	-	√	√
Tangential axis for foil and paper cutting	-	√	√
Mass production with definable rows and coloums of NC data	-	√	√
Resume interrupted job exactly to the step	-	√	√
Cylindric engraving with diameter definition and 4th axis	-	√	√
Feedrate and spindle override	-	√	√
Software limit switches and machine dimension monitoring	-	√	√
Comfortable and flexible macro programming	-	√	√
Free definable reference positions at switches	-	√	√
Comfortable teachin function	-	√	√
Start of job from line no. or percent or prev.cancel position	-	√	√
Digitizing and reproduction of 3D parts	-	-	√
Macro for automatic finding Z zero level by sensor or surface probe	-	-	√
Z height correction on the fly by inputs or keys, best for cutting applications	-	-	√
Dual X axis and special adjusting function at reference move	-	-	√
External keypads for mouse free teachin	-	-	√
Special technological functions for dispensing applications	-	-	√
Automatic tool change support and magazine monitoring	-	-	√
Pneumatic and electric molette with sensor	-	-	√
Free definable messages and bitmap display from input signals	-	-	√
Support of dual and multiple heads	-	-	√
Different counters and timers, machine and spindle running time	-	-	√
Additional PLC functions and runtime system	-	-	√
Different housings for standard and industrial applications, opt. stepper cards	-	-	√
Includes	CD	CD	CD, CPU, cable
Manual, PDF or printed	PDF	printed manual	printed manual
Price (EUR incl. german sales tax)	149,-	279,-	from 952,-