Step controller
Multiple axis controller

iMC-P

Figure:
Front and rear
iMC-P step controller

General

The step controllers **iMC-P** are freely programmable compact controllers with max. 4 final stages for 2-phase step motors The controllers integrate all components (interfaces, motor controllers, voltage supplies, output stages, safety circuits, incl. door controller, control elements) needed to control a machine, in a compact bench housing. The iMC-P1 controller with core module and at least one integrated final stage enables the control of up to 3 additional final stages with clocking / direction module. The signals needed for this are provided by the appropriate external interfaces.

- **iMC-P1n**: with intelligent core module for control via RS232
  The controller also works either in DNC mode (permanently connected with the computer) or in CNC mode (after transfer of the user program as a standalone controller), e. g. via the accompanying PAL-PC software

n ... Number of axes

Features

- 8 signal inputs (24 V DC)
- 8 relay outputs (24 V DC, 300 mA) max. 2A total current
- 1 relay output (230 V AC/6 A)
- 1 analogue output (0 - 10 V)
- RS232 programming interface (rear)
- 32-bit RISC processor and memory for the user program
- Programming with PAL-PC (DNC and CNC modes), @-format (DNC and CNC modes), ProNC, Remote, Galaad, Labview (DNC mode), various high level languages
- Max. 4 final stages (48 V/4.2 A) for 2-phase stepper motors (power supply unit 500 W)
- From a step angle of 1.8° up to 25,600 microsteps/turn (1/128 microstep)
- Automatic current sink
- Motor current adjustable via DIP switch
- Additional control signals (start, stop, reset) adaptable
- Safety circuits (emergency shutdown, door circuit controller) via external plugs in higher level safety circuits integrable
- Broadband mains supply: 110 - 250V AC, 50..60 Hz
- Clocking/direction module to order
- Bench casing W 379 × H 137 × D260

Scope of delivery

- Controller
- Mating plug (I/O, pulse, remote)
- Serial interface lead (null modem)
- 230V AC mains lead
- PAL-PC software CD
- Operating and programming instructions

Ordering information

2-axis controller iMC-P1-2	Part no.: **381403 0002***
3 axis controller iMC-P1-3	Part no.: **381403 0003***
4 axis controller iMC-P1-4	Part no.: **381403 0004***
USB - RS232 converter	Part no.: **372000 0001**

* including PAL-PC

Accessories

Motor lead SubD9 plug - SubD9 socket
Part no.: **392781 0500**

Motor lead SubD9 plug - M23 socket
Part no.: **392755 0500** (5.00 m)

...other lengths available to order.

Subject to technical changes.

PAL-PC

Process automation software for Windows

General

PAL-PC enables rapid, easy and low-cost implementation of automation projects such as handling systems, drilling machines, clocking devices, test and measurement systems, machines for individual and serial processing and much more....

PAL-PC is a modern program development environment for CNC step motor controllers and CNC machines

PAL-PC uses memory operation (CNC mode) for the target controller. PAL-PC produces automation solutions in which the controller works in standalone mode, i.e. independent of a control computer.

PAL-PC runs with Windows 2000, XP and Vista operating systems.

Features

- Path commands for relative and absolute positioning
- Carry out movement until event occurs at an input
- Teach-in-programming (linear)
- Linear 2D interpolation, switchable to 3D interpolation
- Circular interpolation
- Input signal analysis for process control
- Loops for repeating of instruction blocks
- Unconditional and conditional branches
- Analysis of the program selection unit
- Output of messages to a display
- Sending and receiving synchronisation marks
- Additional aids for automated processing of typical tasks

Ordering information

Part no.: **Z11-331810**
PAL-PC - software for CAN-CNC controllers (Windows)

Features

- compatible with previous versions (PAL-PC programs, which were produced with an earlier release of PAL-PC, can be used without adaptation)
- Programming to isel-PAL or DIN66025:
  In addition to the PAL format, users who know programming to DIN66025, can also produce their PAL-PC applications with corresponding G-code commands.
- Integrated editor:
  fast and convenient editing of source texts, editor features such as "Search", "Replace", "Copy" and "Insert " automated code generation, multiple Undo/Redo for efficient programming
- PAL-PC can (depending of the type of controller used) control controllers with up to 4 axes
- Terminal for direct communication with the controller
- Downloading of externally generated CNC programs
- Automatic calculation of type and data transfer rate of the connected controller
- Display of compiler errors and navigating to an error in the source code
- Command rapid overview with optional insertion into the program
- Teach-in-programming with keyboard or mouse
- Acceptance in the editor of target positions as formatted source code
- Live status display at the inputs
- Setting outputs during program generation
- available in German and English