electronics

Step controller
Multiple axis controller

iMC-S8

Figure:
iMC-S8 step controller as bench version and with 19" housing

General

The **iMC-S8** step controller is a freely programmable compact controller for linear or circular axes with 2-phase step motors.
The controller integrates all the necessary components (power supply, safety circuit, power electronics, core processor, interfaces, operating elements) that are needed to control individual spindles all the way to entire machines. It has an intelligent core module that is controlled and programmed via a RS232 interface. The core module also converts the commands programmed in the user program into clocking/direction signals for the connected final stages. Depending on the purpose, the **iMC-S8** controller can be used either in CNC or in DNC mode.

In CNC mode, the processor processes the CNC program which was previously produced with PAL-PC and stored in the controller's Flash memory.

In DNC mode, the **iMC-S8** controller is connected permanently with a control computer (PC, laptop) via a serial interface (RS232). Processing is carried out via the isel control software Remote.

Ordering information

3 8 3 3 2 0 X X 1 X

Variant
1 = 19"-housing
2 = bench housing

Drive module
0 = MD 28
1 = MD 24

Numbers of axis
2 = 2 axis
3 = 3 axis
4 = 4 axis

Scope of delivery

Controller, mating plug (I/O, pulse, Remote), serial interface lead (null modem), 230V AC mains lead, PAL-PC software CD, operating instructions, programming instructions

Features

- 32-bit RISC processor with Flash memory for user program
- Final output stages
  - Step resolution and motor current adjustable via variable DIP switch
  - automatic current sink
- Acceleration, start-stop frequency and step output frequency variable
- both hardware limit switches configurable
- Door controller/hood controller
- Control elements in the front of the casing
- external EMERGENCY SHUTDOWN and POWER connection for integration in higher level safety circuits
- Connection for external control signals, such as START, STOP, RESET (only CNC mode)
- 230V connection for milling spindle (100-230V AC)
- 0 .. 10V analogue output for external frequency converter for speed-controlled main spindle
- Programming/Operation
  - PAL-PC in CNC mode (in the scope of delivery)
  - Remote (optional: ProNC) in DNC mode
  - isel @ - format in CNC/DNC modes

Technical specification

- Broadband mains supply 100 - 250V AC, 50..60Hz
- Processor
  - Flash memory 128 kB, Capacity to store 350 commands
  - max. step output frequency 40 kHz
- Final stages
  - Power supply 48 VDC
  - Peak current: 1,0 - 4,2 A (MD 24)
    2,8 - 7,8 A (MD 28)
  - Step resolution: 400-51200 steps
- Inputs/outputs
  - 8 inputs (24V DC)
  - 8 outputs (24V DC/300mA, Itot 2A)
  - 1 relay output (230V AC, max. 6A)
  - 1 analogue output (0 - 10V)
- RS232 operating/programming interface
- Stop category 1, safety category 2
- Versions:
  - Bench casing W 475 × H 410 × D 187.5 mm
  - 19" housing W 482.5 × H 410 × D 175.5 mm

Accessories

Motor lead M23 plug - M23 socket
Part no.: **392750 0300** (3m)
Part no.: **392750 0500** (5m)

Motor lead M23 plug - SubD9 socket
Part no.: **392752 0300** (3m)
Part no.: **392752 0500** (5m)

Controller software - Remote
Part no.: **Z12-334500**

Controller and programming software ProNC
Part no.: **Z11-333500**

Technical specifications subject to change.