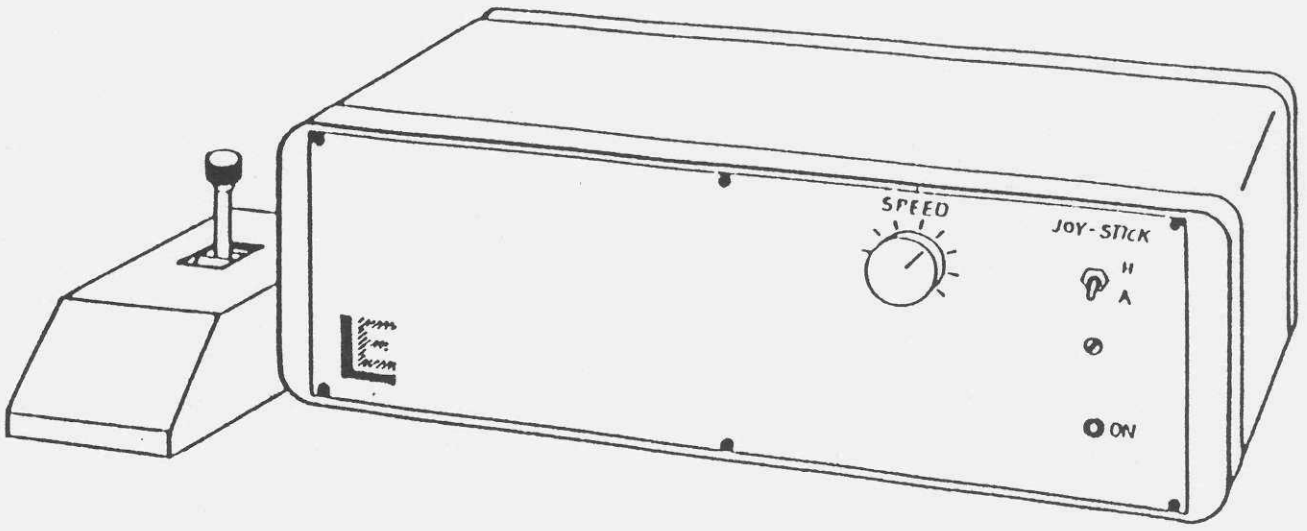
POSITIONING SYSTEM

MCC 11/12/13-JS

RS 232

20 kHz



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I N D E X

*** APPENDIX ***

- Programming examples
- Going high speeds with the MCC 11/12/13-JS-RS 232
- Trouble-shooting with the MCC 11/12/13-JS-RS 232
- Adjustment of the Driverboard
- Circuitry

1 POSITIONSYSTEM WITH INTERFACECONNECTION

The stepping motor controll-unit MCC 13 enables high precision control of 3 axes,especially in automated microscopy (stage and focus control) and automated manufacturing. The field of application covers precision, positioning with a resolution in the range of 0.1 micron, and the control of machine tools like stages of milling machines as well. The control-unit excels in low motor noise in the whole possible frequency range.

The maximum stepping frequency is 20000 microsteps/sec at a resolution of 4000 steps/revolution. An automatic slopefunction provides save and smooth acceleration and deceleration. The integrated linear interpolation enables movement along a vector between the start and destination position. The maximum deviation from the ideal vector is 0.5 step. The stepping frequency can be controlled by computer instruction or by an external potentiometer.

The movement of the three axis is achieved by simply specifying the coordinates of the destination position, - slope function and stepping frequency of the axes are calculated automatically by the built-in microprocessor. The limit-switches of the system are always controlled.
Simple functions, for example,

- Calibration of stages
- Limitation of the range of movement
- Activation of the joystick

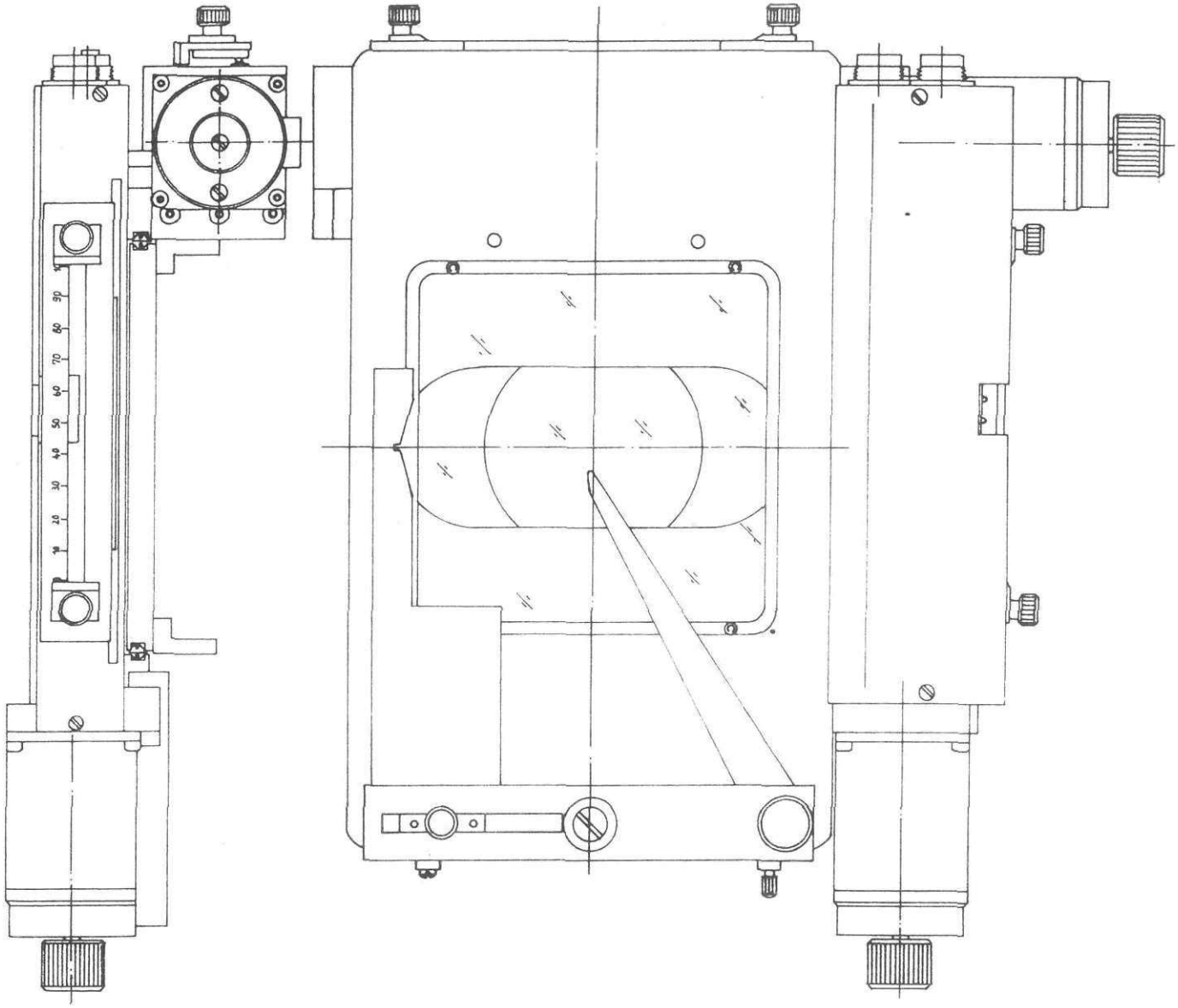
are controllable by computer instructions.

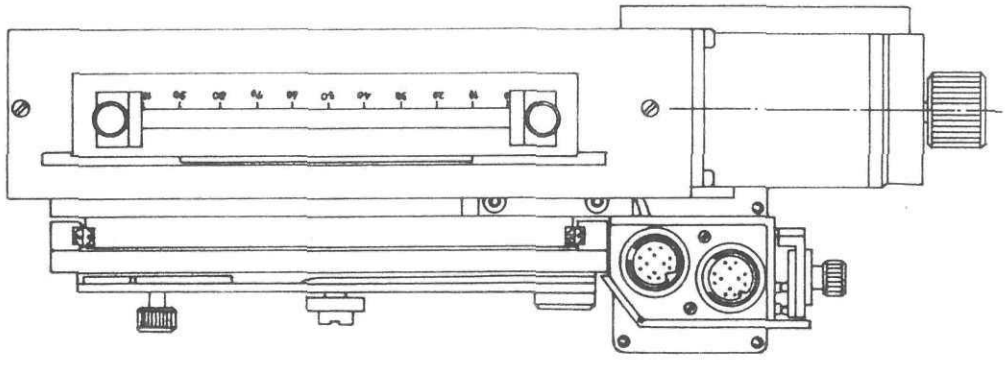
All registers for position counters, commands, status of limit switches etc. can be read via interface connection.

Mechanical stage EK 8b-S/1, S/2 and S/4

with cross roller runs, ball bearing spindles and step motor movement

Range of 102 x 102 mm (4" x 4")





Size: 315 x 270 x 90 mm

Weight: 3800 g

With ball running circular spindles	Code-No.
1 mm pitch	160-364.1
2 mm pitch	160-364.2
4 mm pitch	160-364.4