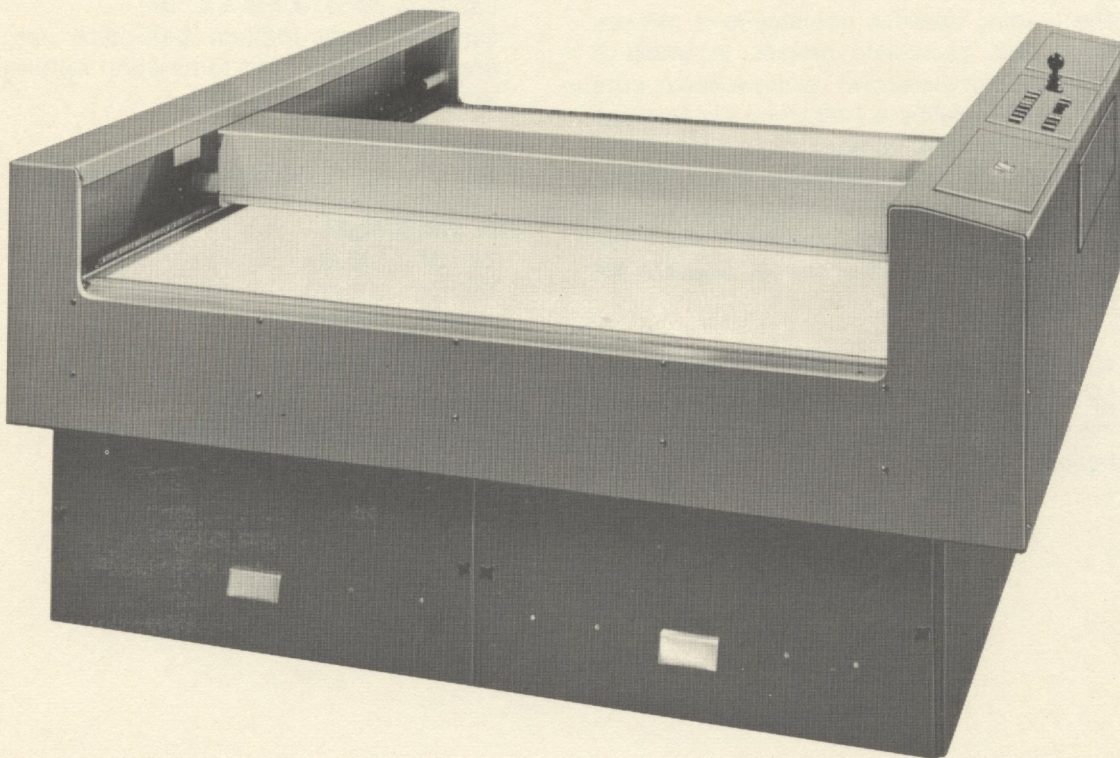


RC 4193 DRAFTING MACHINE CONTROLLER



The Kingmatic 1215 MK II, a high-speed, high-precision analog drafting machine, can be controlled by the RC 4000 computer via the drafting machine controller.

The drafting machine is a flatbed type with an effective drawing area of 1.2×1.5 m. The drawing accuracy is ± 0.1 mm at a drawing speed of 80 mm/second. The maximum drawing speed is 160 mm/second. The drafting machine controller connects the drafting machine to the low-speed data channel of the RC 4000. The controller is placed in an input/

output controller cabinet along with other controllers, power being supplied from the controller cabinet.

Operation

The drafting machine is operated by the standard input/output instruction. Each write command initiates the execution of one pen step (0.025 or 0.05 mm). The controller is equipped with a small buffer store, which can store up to 128 commands; it executes the stored commands without engaging the computer, and

generates an interrupt signal when the buffer is empty. A sense command transfers a status word to the RC 4000 indicating operator intervention, end of buffer, and pen outside paper.

The drafting machine has a local/remote switch. In remote mode the machine is under program control. In local mode the operator can control all pen movements manually by pressing buttons on the control panel of the machine, and reset the buffer by pressing a reset button.

Data Formats

The drafting machine operates in a conventional XYZ coordinate system, in which Z indicates pen movement up/down. Each write command transfers a 7-bit character from the computer to the controller. Depending on the code, the controller interprets this character as a control command or a step command; if interpreted as a step command, the code specifies the step direction (8 possible XY directions).

The input format of the RC 4191 incremental plotter controller is a subset of the input format of the RC 4193 drafting machine controller.

CHARACTERISTICS

Table Type

flatbed, horizontally mounted.

Drawing Area

120×150 cm.

Drawing Speed

max. 160 mm/sec.

Accuracy at 20°C

± 0.1 mm at 80 mm/sec.

± 0.2 mm at 160 mm/sec.

Resolution

0.025 mm (least programmable step).

Drawing Tools

capillary pens: 0.1 to 1.2 mm.

Optional tools include ball-point pen, engraving tools, and lamination cutting tool.

Power

220 V ± 10 %, 50 Hz ± 5 %, 500 VA.

Size and Weight

Length: 183 cm.

Width: 169 cm.

Height: 100 cm.

Weight: 400 kg.

Options

vacuum hold-down system.

illuminated drawing surface.