

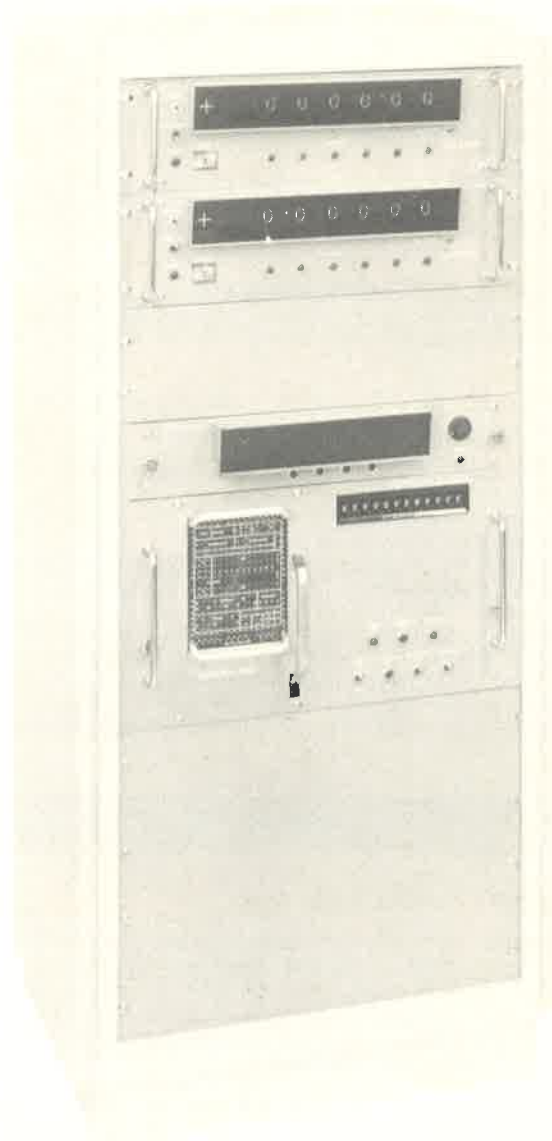
BROOMALL INDUSTRIES

DIGITIZING SYSTEMS
Model 282E TELECORDEX

DESCRIPTION

The Telecordex is a versatile digital data accumulating and indicating system used with all types of data reduction and control systems. (The Telecordex is supplied with most all of Broomall Industries Inc.'s digitizing systems.) The modular construction of the Telecordex permits the addition or subtraction of digital accumulators, event counters, and contact information patchboards. The programmable patch-board permits sequencing of all input data to any desired format and to any combination of recording devices such as tape perforators, flexowriters, typewriters, keypunches, and summary punches.

The Telecordex contains multiple indicating and recording accumulators which count and store electrical pulses. Each accumulator receives the generated position pulse output from the 15A read head and continuously accumulates displacement position in digital form. Direction sensing and bi-directional counting enable the Telecordex to follow clockwise and counter-clockwise motion. Upon actuation of the readout switch, readout may be applied without intermediate amplification to a wide variety of readout recorders.



FEATURING . . .

- maximum counting rate: 50,000 counts per second
- storage: 99,999 counts each axis
- number of axes: Up to three
- identification capacity: 12 decimal digits
- max. card punching speed: 50 per minute
- max. typing speed: Standard (600 characters per minute)
- visual readout: In-line type (Nixie)
- resolution: 500, 1000, or 2000 counts per revolution via the 15A Read Head
- environment: 40° F to 85° F
- power requirement: 105 to 120 volts, 60 cycles, 125 watts (2 axes), 5 amps.

282 E TELECORDEX

ACCUMULATOR SYSTEM

The Telecordex contains independent electronic counters of five decades each. The electronic components are mounted on plug-in units for ease of checking and replacement.

Counter totals are displayed and readout prefixed by the appropriate positive or negative sign.

A switch allows the impact from one counting source to be fed into any other accumulator simultaneously to check count operation. The direction of counting may also be reversed in any accumulator.

Each accumulator has a reset button and a manual advance button for each decade to permit a starting value other than zero.

A suppress switch prevents an accumulator from operating while the associated digitizing unit is repositioned.

READOUT AND RECORDING SYSTEM

Information read into IBM cards, paper tapes, or printed via Electrotypewriter during readout is as follows:

- a. A five digit decimal number with sign indication in each counter.
- b. Numbers introduced manually by the 12 selector switches on the control panel.
- c. Auxiliary input data from frame or readout counters and auxiliary keyboards and constant switches.

This represents a maximum of 78 digits of information any or all of which may be located among 80 columns of an IBM card. Columnar location is controlled by wiring the patchboard in the front of the Telecordex. Provision is made for program modification without changing wiring.

OPTIONS . . .

output: Punched paper tape.

readout: 4 digit event display (Nixie) counter. Displays a running count of recorded readouts, and may be set to advance in selected increments of 0 through 9 with each readout as an accumulator for card sequence control.

visual readout: 6 digit display and readout (Nixie), indicating the sign and 5 digits in each axis.

multi-channel: Two decade channel counter and Four decade time line counter.

CONTROL UNIT

The Control Unit supplies output programming and related readout control signals.

Input data to the Control Unit are derived from:

- a. Output of each accumulator.
- b. Twelve constant selector switches.
- c. Output from auxiliary units via either of two auxiliary connectors.

Each connector can accept 12 decimal digits of data. Auxiliary input may originate from:

1. A readout counter.
2. A channel and time tracker.
3. A frame counter.
4. A keyboard.
5. Additional constant switches.

Output from the Control Unit can be recorded by:

- a. Electrotypewriter.
- b. Tape Perforator.
- c. Keypunch.
- d. Summary Punch.

A program patchboard is provided to allow arrangement of output data format to the serial recording devices (a, b & c). A block programming system allows wide flexibility in output format. Rapid or complete program changes by simply interchanging pre-wired panels are made possible through the availability of the 195D Control Unit. Readout control signals required during system operations are obtained from sub-units in the Control Unit. These controls are conveniently located on the front panel:

- a. Constant selector switches.
- b. Program patchboard for serial readout.
- c. Readout reset button to reset circuits to initial condition.
- d. Accumulator reset button for return to zero.
- e. Readout button to initiate a readout cycle.

APPLICATIONS . . .

- Film Readers
- Oscillogram Readers
- Map Reading Units
- Precision Comparators
- Densitometers
- Photogrammetry
- Machine Control
- Servo-Mechanism Position