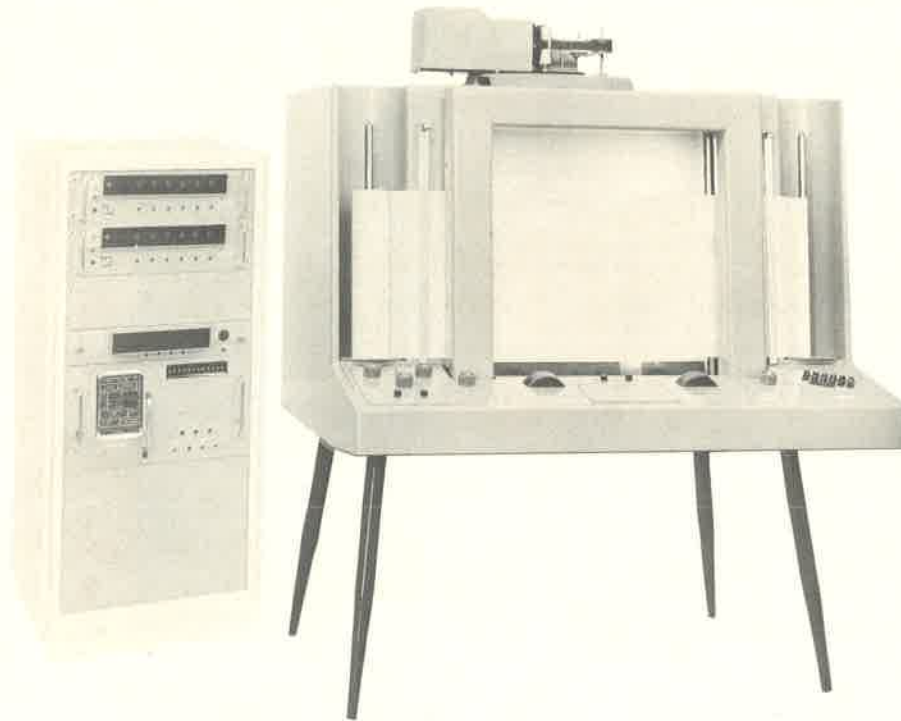


# **BROOMALL INDUSTRIES**

**DIGITIZING SYSTEMS**

**Model OSCAR-S**



## **DESCRIPTION**

The OSCAR S is a semi-automatic strip chart and record reading/digitizing machine designed to expedite the analysis of data recorded as images or traces on transparent, translucent or opaque film or paper. The OSCAR S is composed of two units; the reader and the control unit. All necessary mechanical and electronic components are contained within these two units.

The OSCAR S is equipped with two 15A Magnetic Read Heads which convert shaft rotation into digital form. Thus, the position of a rotating shaft is accurately measured by generating electrical pulses for each increment of travel. The number of pulses, representing the position of the shaft, is accumulated by electronic means in the X or Y bi-directional electronic counters.

The bi-directional electronic counters receive the generated pulse output and continuously accumulates displacement position in decimal digital form. Direction-sensing and bi-directional counting enable the system to follow both clockwise and counter-clockwise motion.

The count accumulation is visually displayed with NIXIE lamps, and is also stored in a memory for electrical readout. Upon actuation of the readout switch, the last digital entry is locked in the memory and is then read out through the

readout drawer. Since memory storage is isolated from the counting function, continued displacement of the read head encoders may be accomplished without disturbing the memory readout; i.e., readout can be taken on the fly. Upon completion of the readout function, the memory is again returned to the count storage function. Memory re-zero may occur at any desired time through actuation of a zero-out switch.

## **FEATURING**

- To reduce operator fatigue when the OSCAR S is operated over extended periods, careful attention has been paid to the position of the operating controls. The most commonly-used controls, cross hair controls, lie under the natural resting position of the operator's hands.
- The NIXIE display of the X and Y coordinate values on the control unit are at eye level for easy viewing by the seated operator.
- When using the projection system, a simplified optical path in the OSCAR S permits sufficient light to be projected onto the screen so that it may be operated in a normally-lighted room. A standard 500-watt projection lamp and a heat filter provide sufficient light for this purpose without charring or burning the film.

# OSCAR S DIGITIZING SYSTEM

## STANDARD FEATURES

<b>reading area</b>	20" x 20" usable area. Accepts paper in rolls up to 5" in diameter, up to 20" in width.
<b>reading accuracy</b>	± .004 overall system accuracy. Limited by human factors and record quality.
<b>output</b>	024/026/029 Key punch and Electric Typewriter, 523 Summary Punch.
<b>visual readout</b>	5 digit display and readout (Nixie), indicating the sign and 5 digits in each axis.
<b>storage</b>	±99,999 in each axis.
<b>resolution</b>	250, 500 or 1000 counts per inch (approx.)
<b>counting rate</b>	50,000 counts per second.
<b>identification</b>	12 fixed data digit switches are provided for entering fixed data following readout.
<b>format control</b>	Removable operator's programmable patchpanel allows formats to be generated to suit the specific problem.
<b>cursors</b>	Plexiglass cursors with scribed lines provide fast, accurate positioning. Four different cursors provided for a wide variety of uses.
<b>keyboard</b>	16-key serial keyboard.
<b>paper hold down</b>	Magnetic hold-down arms in either side of the lighted screen hold the record in place.
<b>viewing screen</b>	Backlighted viewing screen with variable lighting intensity.
<b>environment</b>	+40°F to +85°F.
<b>power requirements</b>	115V ± 10V, 60 cycle, single phase, 250 watts, 8 amps.

## OPTIONAL FEATURES

<b>output</b>	Punched paper tape, Electrotyper, Magnetic tape using 282M Telecordex and 556 bpi incremental tape transport.
<b>readout</b>	4 digit event display (Nixie) counter. Displays a running count of recorded readouts, and may be set to advance in selected increments of 0 thru 9 with each readout as an accumulator for card sequence control.
<b>visual readout</b>	6 digit display and readout (Nixie), indicating the sign and 6 digits in each axis.
<b>multi channel</b>	Two decade channel counter and Four decade time line counter.
<b>motor driven paper transport</b>	Bi-directional, variable speed paper advance for roll type records.
<b>film projectors</b>	Projection units are available capable of handling sprocketed or unsprocketed 16, 35, or 70mm film for either flow film or frame by frame film movement.

## MECHANICAL SPECIFICATIONS

<b>size</b>	Oscar S: 57" tall, 40" wide, 42" deep. 282E: 53.5" tall, 23" wide, 29.5" deep.
<b>weight</b>	Oscar S: 351 pounds (approx.) 282E: 350 pounds (approx.)
<b>color</b>	Light blue with gray trim.

## WARRANTY

Purchase of the Oscar S includes installation by a factory trained field engineer and a 90 day warranty from date of installation.