DEPARTMENT OF

TRADE AND COMMERCE
CANADA

S-EA.554

STANDARDS BRANCH

OTTAWA June 18, 1962.

TYPE APPROVAL

HONEYWELL "ELECTRONIK 17"
STRIP CHART RECORDING POTENTIOMETER

The apparatus specified and illustrated herein has been duly approved by the Standards Branch under the provisions of the Electricity Inspection Act, Chap.94, R.S. 1952, and may be admitted to verification in Canada.

Apparatus Approved: "ElectroniK 17" Strip Chart Recording Potentiometer, manufactured by Honeywell Controls Limited, Toronto 17, Ontario.

Rating of Apparatus:

#*Millivolt Input	Ranges from 0-5 mv to 0-100 mv, D.C.
Record	Single pen, continuous line
Current Standardization	Continuous automatic (Zener Diode)
Chart	6-inch calibrated width
Scale	6-inch calibrated width
Pen Speeds	1-, 5- and 15-second
Basic Chart Speeds	1, 2, 6, 10 and 60 inches per hour
Supply Voltage	115 volts
Supply Frequency	60 cycles
Maximum External Resistance	10000 ohms.

* The kilowatts, megawatts or other power function which the millivolts represent shall be shown on the nameplate or scale.

L H zero or zero up to half-scale is approved. In the latter case, ranges will be -2.5 to +2.5 mv up to -50 to +50 mv.

Type Designation: Made up of the following groups of numbers, all of which are covered by this approval:-

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
17	3	10	101	30	0	31	SK1591
			105	31		32	
			115	32		36	
						37	
						38	

(Example: Type 17310-115-30-0-32-SK1591)

(1) - ElectroniK 17
(2) - Strip Chart
(3) - Non-Control
(4) - Pen Speed: 101 (1-sec); 105 (5-sec); 115 (15-sec)

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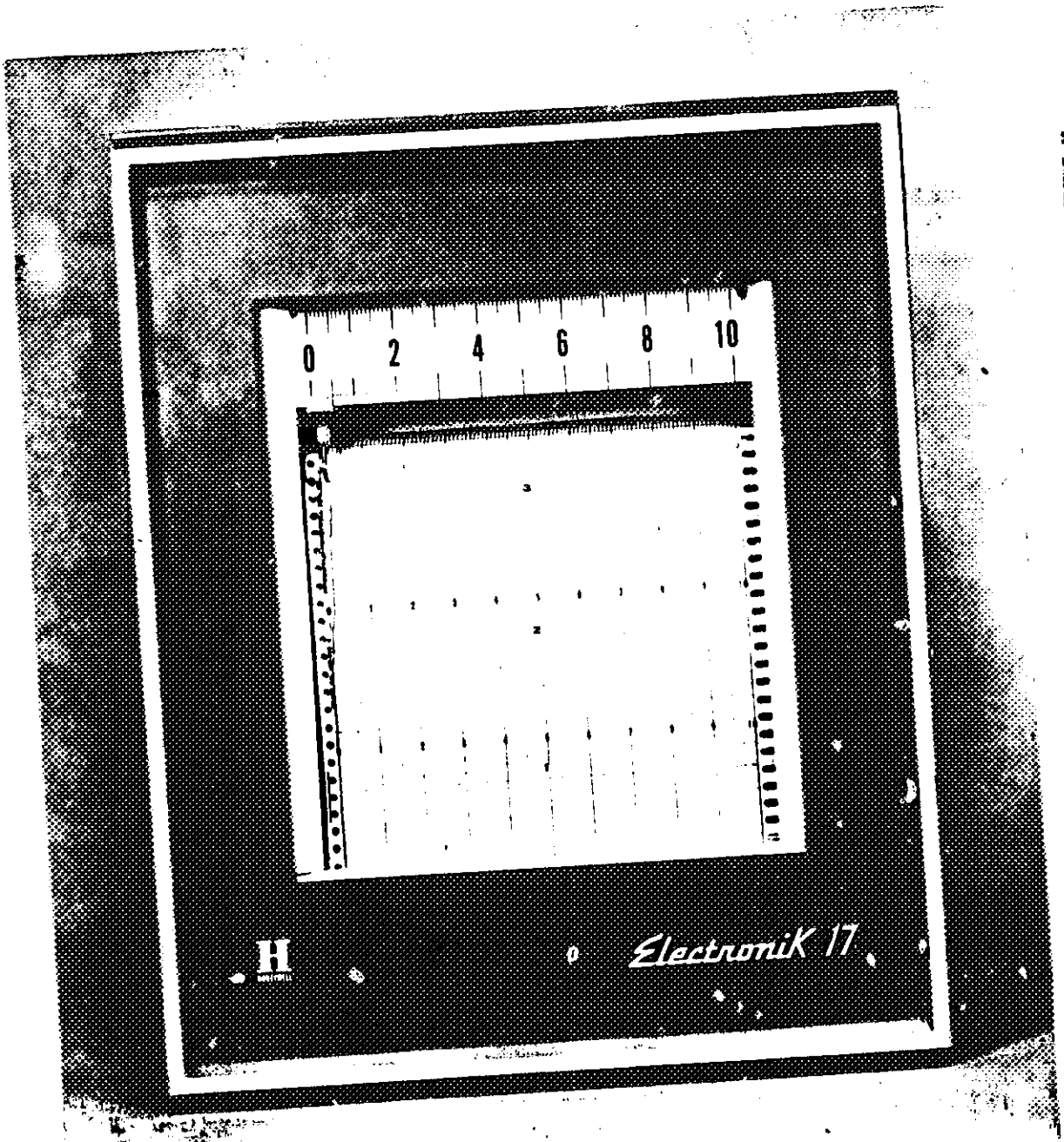
HONEYWELL "ELECTRONIK 17"
STRIP CHART RECORDING POTENTIOMETER



(5) - 30 (DC mv standard); 31 (DC mv upscale burnout);
32 (DC mv downscale burnout)
(6) - Non-Control
(7) - Chart Speed: 31 (1 inch/hr.basic); 32 (2 inch/hr.basic);
36 (6 inch/hr.basic); 37 (10 inch/hr.basic);
38 (60 inch/hr.basic). All are supplied
with change gears to give $\frac{1}{2}$ and 2 times
basic chart speed.
(8) - SK1591 denotes that provision is made for sealing the adjustments with a locking wire and seal.

Description: The "ElectroniK 17" is a continuous balance potentiometer type strip chart recorder, but differs from the conventional type in that the slide wire has been replaced by what the manufacturer terms a "stranducer", utilizing the principles of the strain gauge where four wires are arranged to form the four legs of a Wheatstone bridge.

The action of the balancing motor acts to increase the tension on one pair of wires and decrease it on the other pair, thus producing a voltage which is compared with the incoming voltage. The motor moves in a direction to reduce the difference between the two voltages to zero and simultaneously drives the pen over the paper.

The drive module is the heart of the ElectroniK 17 and comprises the measuring circuit, the stranducer unit, the constant current unit, the input filter, the amplifier and the balancing motor. The amplifier unit is available in either tube or transistor types which are interchangeable.

The adjustments are on the right-hand side of the drive module and are covered by a solid aluminum plate under the original cover plate. These plates must be sealed by a wire passing through the cross-drilled filister-head screws. Recorders having this method of sealing are identified by the description SK1591 on the nameplate, and are not to be verified unless this number appears.

E. F. Power

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Chief, Electricity and Gas Division,
Standards Branch.

R. D. MacLean

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Ref: A-934