

High sensitivity multichannel recording by means of channel selector and "micrograph" recorder / Kipp & Zonen.

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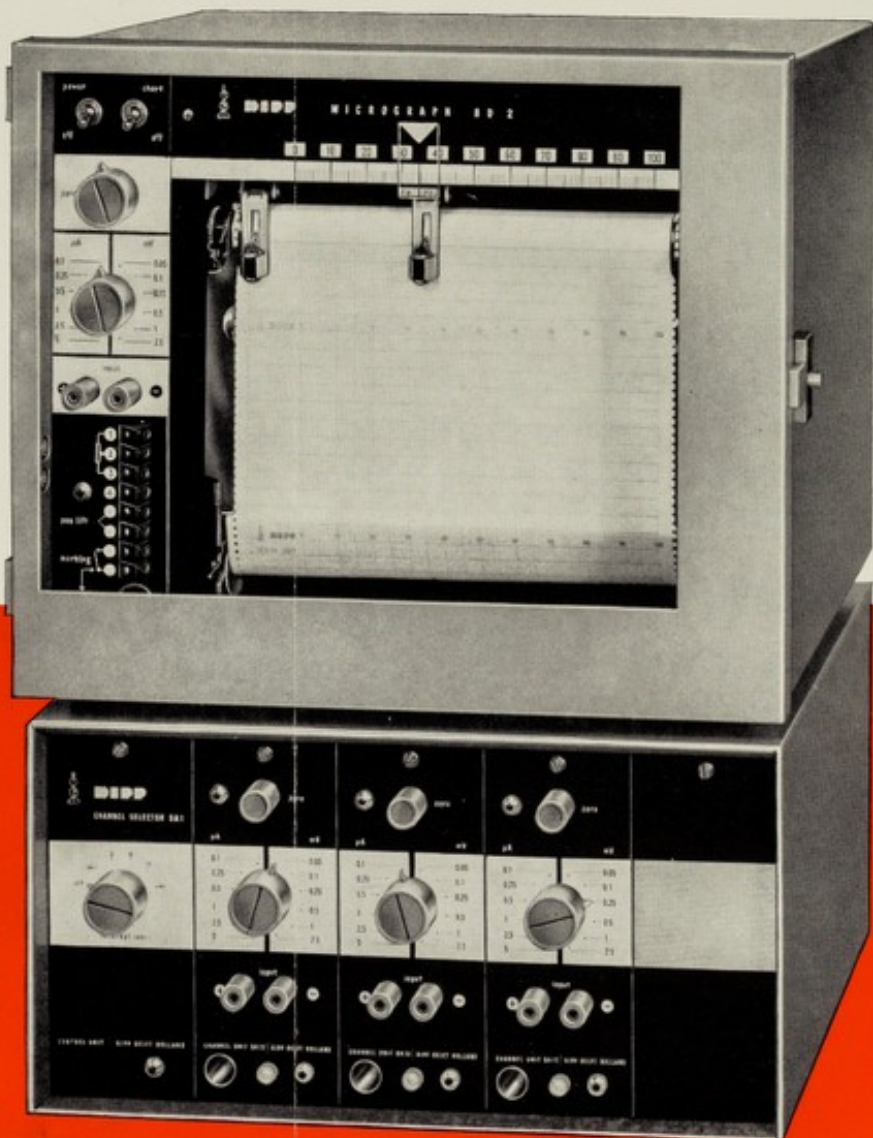
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High Sensitivity Multichannel Recording

by means of Channel Selector and „Micrograph” Recorder



KIPP & ZONEN

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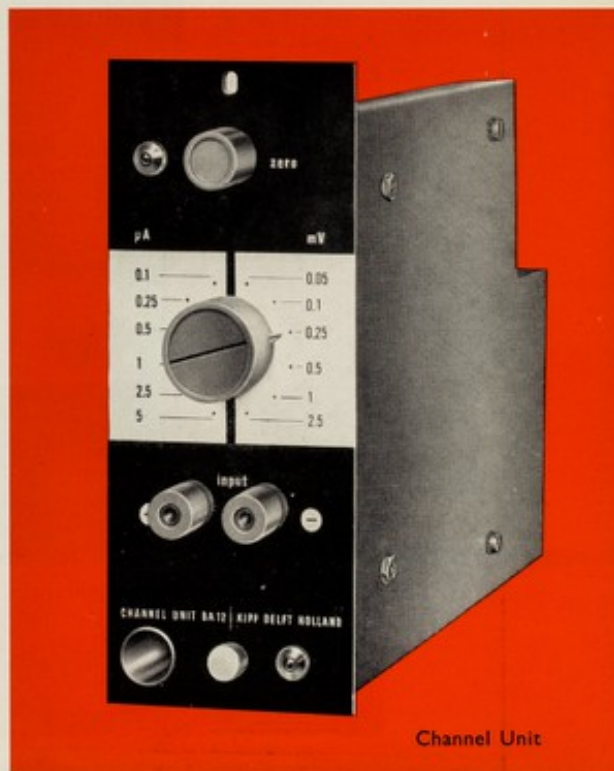
Channel Selector



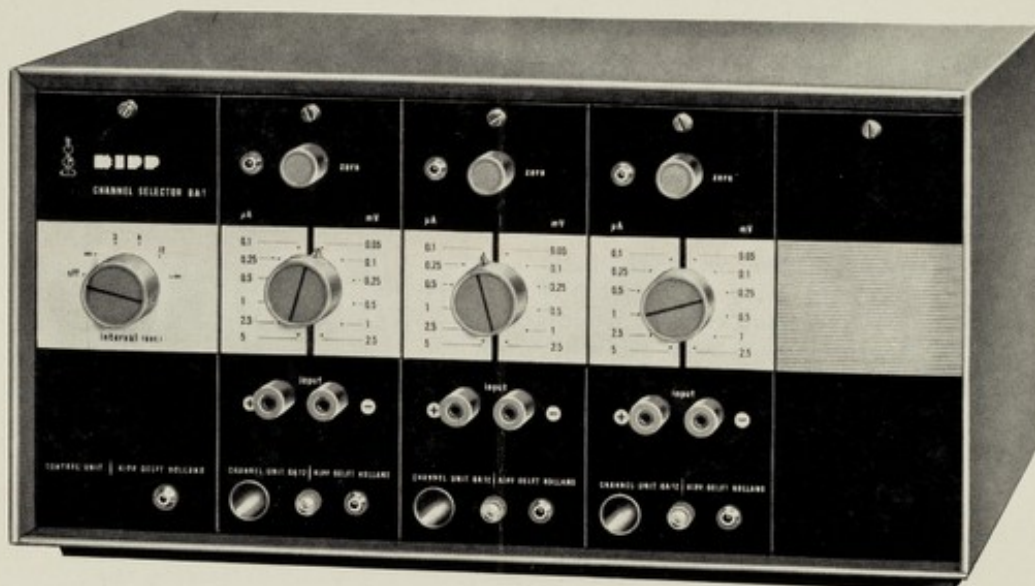
The Channel Selector permits recording of up to four signals on our single channel recorder without any modification to the latter. The instrument has been specially designed for use in conjunction with the Fifty Microvolt D.C. Recorder "Micrograph" BD Series. It considerably extends the range of applications of this recorder. Programmed time switching enables intermittent recording of two, three or four signals on a single chart.

The following entirely new features are incorporated:

- a. Individual sensitivity and zero setting for each channel.
- b. Channels may be independently switched out. Consequently no recording time is consumed in stepping by channels temporarily not required.
- c. Variable switching interval. This interval can be set at 3, 6, 12 or ∞ sec. The last position permits continuous recording of one signal.



Channel Unit



Channel Selector for recording three signals

Technical details

The Channel Selector is enclosed in a steel cabinet. The standard equipment is supplied with a control unit and two channel units, allowing the recording of two signals, one channel unit being required for every signal. Besides the control unit, the cabinet accommodates a maximum of four channel units. So, one or two channels may be added to the standard equipment. All channel units are interchangeable.

The cabinet is suitable for bench use or mounting in a standard 19" relay rack.

The control unit supplies the power required for the channel units and it determines the switching interval for the successive channels. This interval may be set at 3, 6, 12 or ∞ seconds. If for instance three channels are used and the interval is set at 6 seconds, each channel is repeated every 18 seconds. Each channel unit is provided with a zero setting knob and a selector for the twelve measuring ranges specified on page 4. A channel unit is switched in by means of a press button on its front panel. If a certain channel is not in operation, it is automatically by-passed without loss of time. Thus maximum resolution is maintained for the channels actually required.

The Channel Selector is connected to the terminals of the "Micrograph" recorder by means of only four leads. Two leads are connected to the input terminals, whereas the other two are connected to the penlift terminals.

When switching from one channel to another the pen is automatically lifted off the recorder chart.

Main supply: 110-130-145-190-220-245 Volts 50-60 cps. The instrument is fully compensated for variations in main supply voltage.

Sensitivity per channel

Full scale deflection of 21 cm on the "Micrograph" is obtained for:

Current range:	Input impedance:	Voltage range:	Input impedance:
0.1 μ A	— Ohms ¹⁾	0.05 mV	500 Ohms
0.25 ..	144 ..	0.1 ..	1000 ..
0.5 ..	96 ..	0.25 ..	2500 ..
1 ..	54 ..	0.5 ..	5000 ..
2.5 ..	23 ..	1 ..	10000 ..
5 ..	12 ..	2.5 ..	25000 ..

Admissible external resistance on 0.1 μ A range: 500 - ∞ Ohms

Admissible external resistance on all other ranges: 0 - ∞ Ohms

¹⁾ Theoretical value 0 Ohm. Practical value about 0.25 Ohms.

„Micrograph” Recorder BD Series

Measuring ranges: 0.1 μ A — 5 μ A in six ranges, 0.05 mV — 2.5 mV in six ranges (see table above)

Accuracy: Error <1% of f.s.d. (full scale deflection)

Linearity: Error <0.25% of f.s.d.

Dead zone: <0.25% of f.s.d.

Response: Full scale travel within 1 second

Input resistance: 10 MOhms/Volt

Chart speeds: BD 1 60-180-360-720-1440 mm/h (0.1-0.3-0.6-1.2-2.4 cm/min)

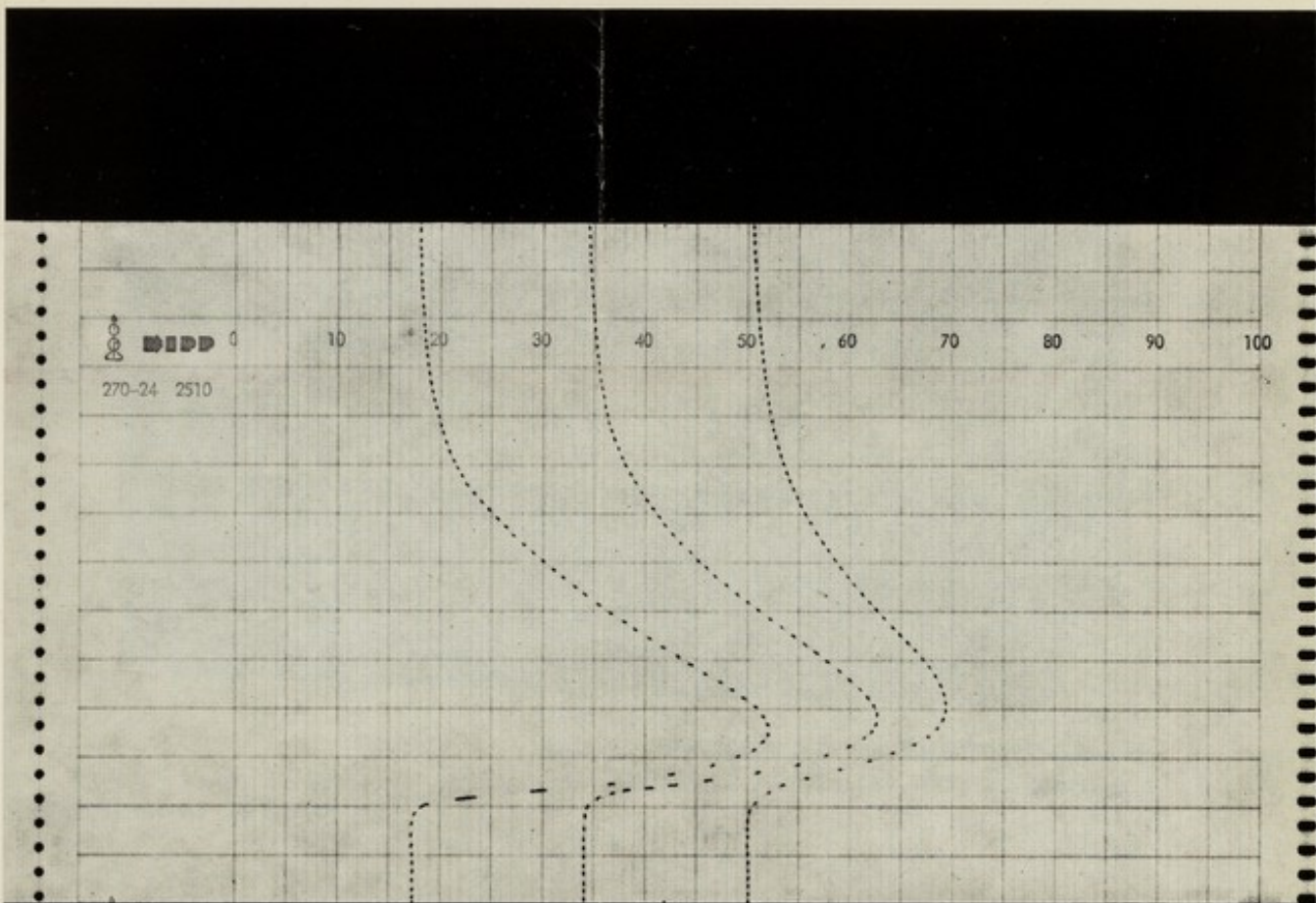
BD 2 600-1800-3600-7200-14400 mm/h (1-3-6-12-24 cm/min)

BD 3 2400-7200-14400-28800-57600 mm/h (4-12-24-48-96 cm/min)

Main supply: 110-130-145-190-220-245 Volts 50-60 cps. The instrument is fully compensated for variations in main supply voltage.

List REMI 59 containing a more detailed description of the "Micrograph" recorder will gladly be sent on request.

CAT. NOS. SEE PAGE 6



Record of the output of three thermocouples. The thermocouples were evenly spaced along a copper bar. One side of the copper bar was heated for a few seconds.

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Channel Selector

- Cat. no. _____
- BA 1 Channel Selector for recording two signals, consisting of housing with control unit and two channel units BA 12
Extra, if required:
- BA 12 Channel unit
- BA 11 Frame for mounting BA 1 in 19" relay rack
Spare parts:
- XL 3 3 Lamps 6 V 0.1 A for pilot light
- XV 1* 1 Mercury cell for control unit

„Micrograph" Recorder

- BD 1 Micrograph, with interchangeable gears for chart speeds of 60-180-360-720 and 1440 mm/h, including 6 rolls of paper chart, 3 pens, 1 siphon containing blue recording ink
- BD 2 Micrograph, same as model BD 1, but with interchangeable gears for chart speeds of 600-1800-3600-7200 and 14400 mm/h
- BD 3 Micrograph, same as model BD 1, but with interchangeable gears for chart speeds of 2400-7200-14400-28800 and 57600 mm/h
Extra, if required:
- XZ 13 Frame for panel rack mounting (19")
Spare parts:
- XR 1 6 Rolls of paper chart
- XR 2 1 Recording pen
- XR 3 1 Siphon containing blue, red or green recording ink
- XV 1* 1 Mercury cell 1.35 V
- XL 2 3 Lamps 6 V 0.5 A for moving coil detector
- XL 3 3 Lamps 6 V 0.1 A for pilot light
- * To be ordered only in the case of direct need

Weights and dimensions:

BA 1	17 kg	24	×	43.8	×	30.3	cm
BA 12	3 kg	20.4	×	8.5	×	26.4	cm
BD 1	31 kg	38	×	44.5	×	31	cm
BD 2							
BD 3							

When ordering, please state voltage and frequency of the supply



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