

#### GENERAL SPECIFICATION

Supply voltage : 22-32V DC  
Current consumption : approx. 130mA at 24V supply  
Temperature range : 0 to +45°C ambient temperature

#### INPUT

Frequency range, 0.5dB point : 20Hz to 16kHz  
High frequency roll-off : at 25kHz greater than 7dB  
at 40kHz greater than 20dB  
Input impedance : 20kOhm  $\pm 10\%$ , balanced, floating  
Input voltage for 0dB reading : 1.55V rms sine (+6dBu)  
Input overload level : 8.6V rms sine (+21dBu)  
Dynamic measuring range : 55dB

#### MEASURING ERRORS

	at +5 to -10dB	below -10dB
1kHz steady signal, 25°C	: $\pm 0.5$ dB	$\pm 1$ dB
Within full frequency range, 25°C	: +0.5/-1dB	+0.5/-2dB
Within full temperature range, 1kHz	: $\pm 1$ dB	$\pm 2$ dB
Polarity shift of unsymmetrical wave	: $\pm 0.5$ dB	$\pm 1$ dB
10% change of supply voltage	: $\pm 0.2$ dB	$\pm 0.2$ dB
Tracking between channels	: better than $\pm 0.5$ dB	

#### INTEGRATION & FALL-BACK TIME

Integration time : 10msec. for -1dB  $\pm 0.5$ dB  
5msec. for -2dB  $\pm 1$ dB  
Conforming to DIN 45406 and IEC 268-10 : 3msec. for -4dB  $\pm 1$ dB  
Integration time is measured : 0.4msec. for -15dB  $\pm 2$ dB  
with 5kHz tonebursts  
  
Fall-back time, with linear scale : 1.5sec. for 0 to -20dB  
Fall-back time with scale according to  
DIN 45406. Conforms with IRT-ELA KE/Mr 4.5.70

#### PEAK STORE

Accuracy of peak storing ("Memory")  
in upper end of scale, above -30dB reading :  $\pm 1$  neosegment or  $\pm 0.25$ dB  
in lower end of scale, below -30dB reading : +2/-1 neosegment or  $\pm 1$ dB  
(whatever is greatest)

#### EXTERNAL FUNCTIONS (available when making connections externally)

Additional gain, scales according to DIN 45406 : +20dB  $\pm 0.5$ dB  
+40dB  $\pm 1$ dB for "Nordic" scales  
"Display peak" : Displays peak storing  
"Reset" : Clears the memory  
"Fast" gives an integration time : 100usec. for -1dB reading  
Overload LED's : Light Emitting Diodes placed  
above the bar graphs  
  
Brightness control  
Scale select : Optional scale lines

#### GENERAL DATA

Standard scales : DIN +5 to -50dB  
Nordic +9 to -36dB  
"BBC" 1 to 7 (4 = 0.775V)

All types are available for horisontal or vertical  
mounting

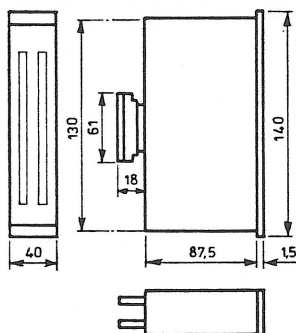
Number of single elements in the bar graph	: 200 in each channel
Overload and scale lines indication	: 4 times increase of light intensity
Connector	: 2 pcs. 10 pole edge connector

MECHANICAL DATA

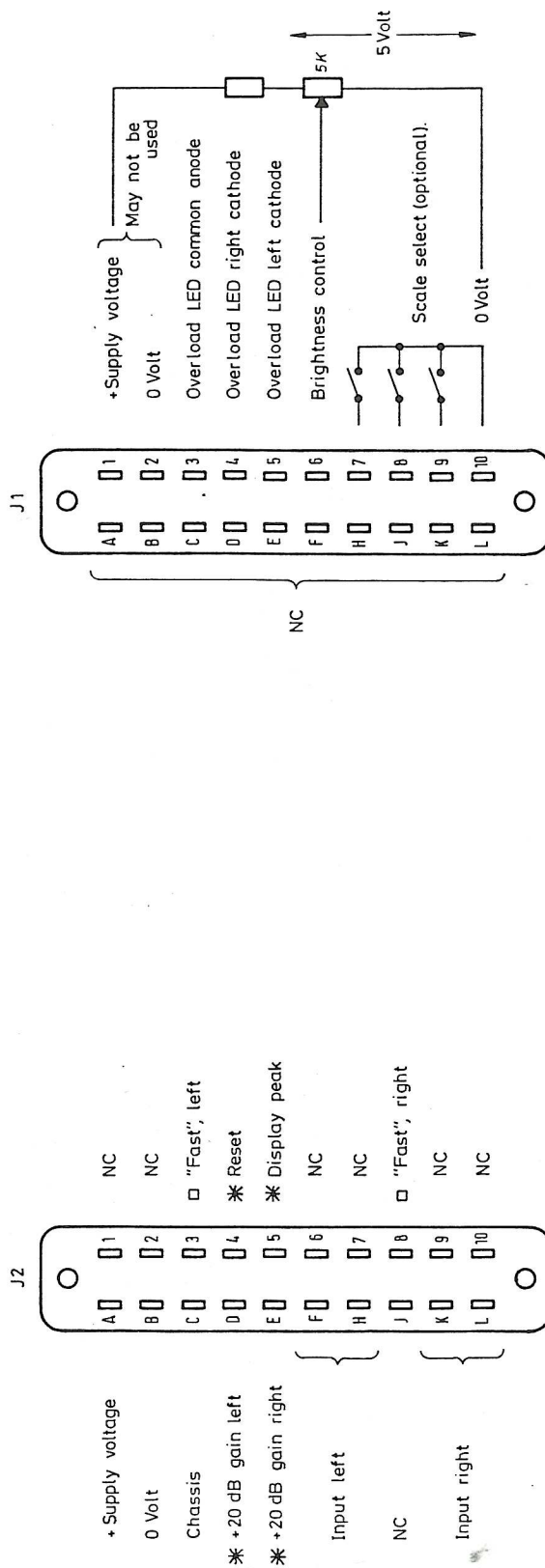
The instrument is housed in a cabinet

Height	: 130mm
Weidth	: 40mm
Depth	: 87.5mm
Weight	: 0.4kg
Total scale length	: 100mm

Mechanical outline:



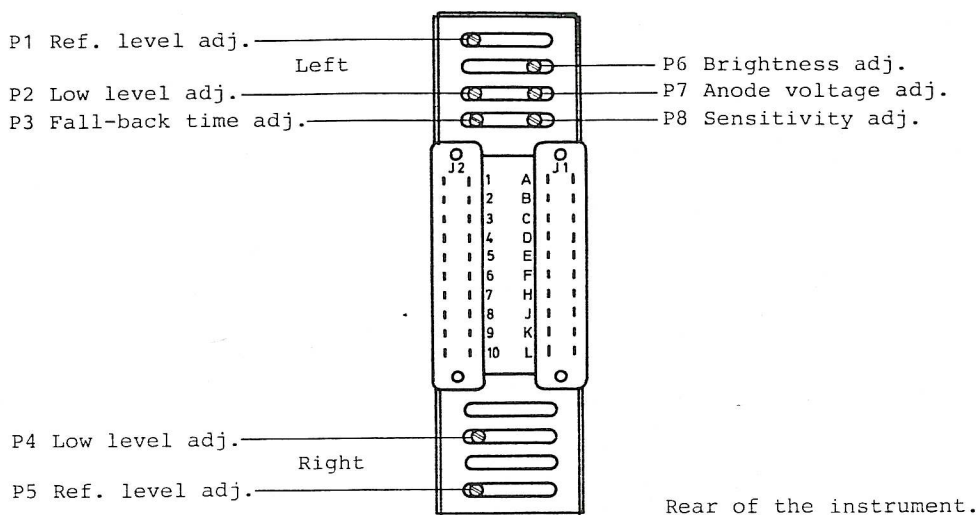
The two 20-pole connectors seen from the rear side (solderside).



\* The function is established when the pin is connected to 0 Volt.

□ The function is established when the pin is connected to +Supply voltage.

Since the instrument is adjusted correctly on delivery, adjustment only has to be carried out in case of faulty mode of operation i.e. when a component has failed and has been replaced.



#### TEST SET-UP.

1. Connect +24V DC to pin A on J2 (0 Volt to pin B on J2).
2. Feed a signal e.g. 5 kHz sinusoidal to the input terminals for both channels i.e. pin F and H as left input and pin K and L as right input. Adjust the amplitude of the signal for max. reading on the display. (top of the scales).

#### ANODE VOLTAGE ADJUST.

1. Adjust P6 for max. brightness (max. CW).
2. Turn P7 slowly CCW, as far as possible without getting a flickering display.
3. Measure the current consumption.
4. Adjust P7 to obtain an increase in the current consumption of approx. 15 mA.

*P6 1 MAX - JUST. P7 71L 150mA  
OG JUSTER P6 71L 155mA*

#### BRIGHTNESS ADJUSTMENT.

1. Turn P6 max. CCW (min. brightness) and then slowly CW in order to obtain a uniform glow in all segments.
2. Measure the current consumption.
3. Adjust P6 to obtain an increase in the current consumption of approx. 40 mA (or to desired brightness).

#### VOLTMETER SENSITIVITY ADJUSTMENT.

1. Remove the instrument from the cabinet by following the drawing 277-2020-A-3, "Disassembling".  
CAUTION! Become aware of that when the supply voltage is applied high voltage (250V DC) is on the circuits.
2. Connect a voltmeter to the wiper (center pin) on P8. The voltage should be 3V. If not, adjust P8.



LOW LEVEL & REF. LEVEL ADJUSTMENT.

1. Assemble the instrument and connect a signal of -40dB to the input terminals (F and H as left input, K and L as right input on J2).
2. Adjust P2 for left channel and P4 for right channel to obtain correct reading ("-40" on DIN-scale).
3. Change the signal to ref. level and adjust P1 for left channel and P5 for right channel to obtain correct reading ("0" on DIN-scale).
4. Repeat the adjustments 1 - 3.

FALL-BACK TIME ADJUSTMENT.

1. Connect a burst generator e.g. NTP type 507-100 to the input terminals (F and H is left input, K and L is right input).
2. Adjust P3 to obtain recommended fall-back time. (1.5 sec. from "0" to "-20" on DIN-scale).