

DISA

BROADCAST EQUIPMENT



DISA ELEKTRONIK A/S · HERLEV · DENMARK

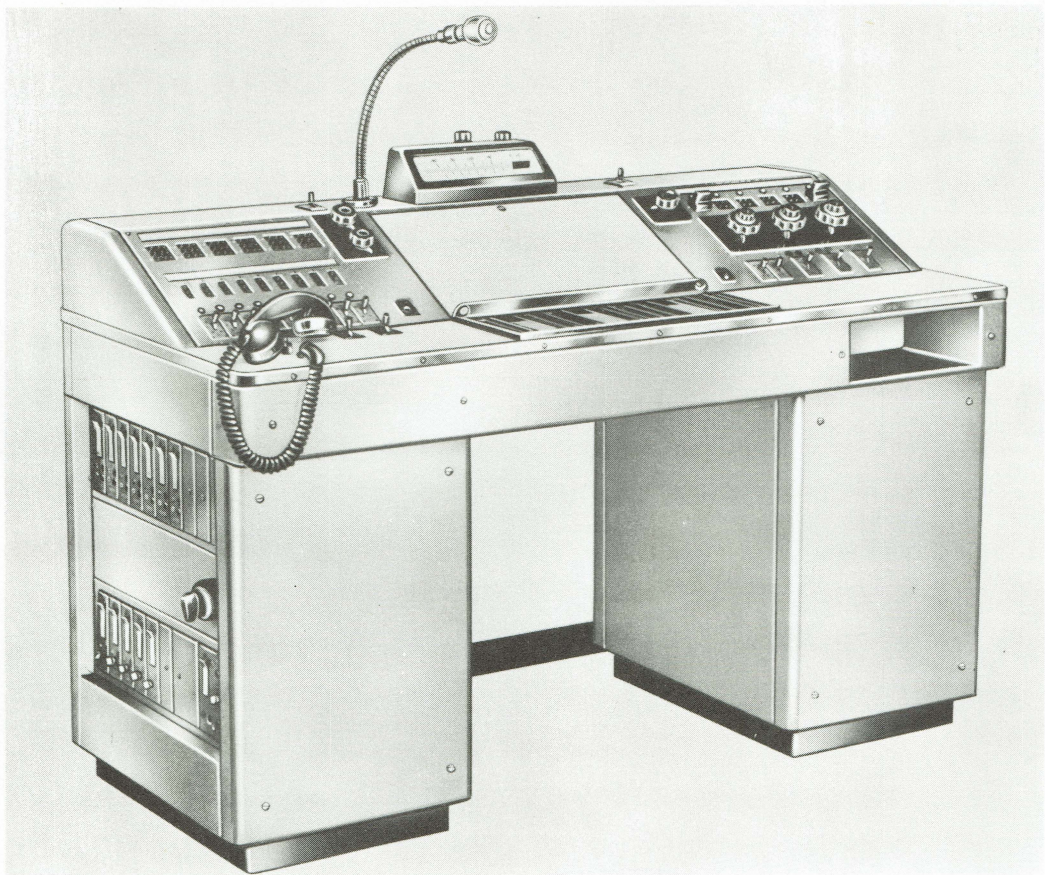
TELEGRAMS: DISATRON · TELEPHONE: COPENHAGEN 94 58 11

Prislista över Studioförstärkare m.m.

Pos.		Typ	Code	Sv. Kr.
1	Standardförstärkare	91B27	9091B0271	785:--
2	"	91B28	9091B0281	785:--
3	Kommunikationsförstärkare 2 W	91C04	9091C0041	950:--
4	Logaritmisk förstärkare	91H01	9091H0012	995:--
5	" "	91H03	9091H0032	995:--
6	" "	91H04	9091H0043	1.255:--
7	" "	91H05	9091H0053	1.255:--
8	Begränsarförstärkare	91N02	9091N0022	1.300:--
9	Högtalarförstärkare 20 W	91M35	9091M0352	1.470:--
10	Knutpunktsförstärkare	91B37	9091B0352	1.560:--
11	Ljusvisarinstrument	91D02	9091D0021	640:--
12	"	91G01	9091G0012	825:--
13	" Stereo version	91G02	9091G0022	1.125:--
14	Testkontakt	91F01	9091F0011	36:--
15	Testsockel	91F02	9091F0021	25:--
16	Instrument	91F20	9091F0201	400:--
17	Videoförstärkare	92A06	9091A0062	1.115:--

Priserna gäller fritt Stockholm, inklusive tull och emballage.

BROADCAST EQUIPMENT



DISA CONTROLDESK FOR BROADCAST STUDIOS



DISA ELEKTRONIK A/S · HERLEV · DENMARK

TELEGRAMS : DISATRON · TELEPHONE : COPENHAGEN 94 52 11

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ARRANGED ACCORDING TO INSTRUMENT TYPE NUMBERS

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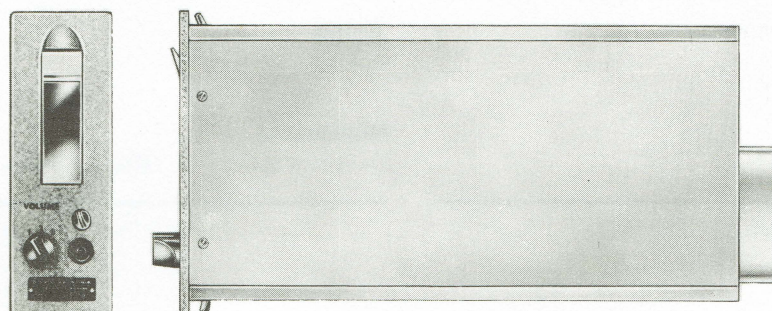
We reserve the right to make, without notice, such changes in our published data as we may deem necessary or desirable.

Broadcast Equipment

Data Sheet 91B27/28

Provisional Data

DISA Standard Amplifiers
Types 91B27 and 91B28



APPLICATION

The transistorized standard amplifier is manufactured in two types, the 91B27 and the 91B28. The 91B28 (A-amplifier) may be employed as a microphone amplifier, and the 91B27 (B-amplifier) may be employed as a line-feed amplifier. The two amplifiers differ from each other by having different input impedances and different gain values. Both the A-amplifier and the B-amplifier are designed for working into lines with impedances between 200 ohms and 600 ohms.

TECHNICAL DATA

Input Terminals

1a and 1b on plug P1.

Series Connection (the input transformer primary windings in series) terminals 2a and 2b strapped.

Parallel Connection (the input transformer primary windings in parallel) terminals 1a and 2b strapped, likewise 1b and 2a.

Voltage Gain

Type	Series connection	Parallel connection
91B27	40 db	46 db
91B28	46 db	52 db

Input Impedance at 40 c/s - 15 kc/s

Type	Series connection	Parallel connection
91B27	4000 ohms $\pm 10\%$	1000 ohms $\pm 10\%$
91B28	800 ohms $\pm 10\%$	200 ohms $\pm 10\%$

Frequency Response

40 c/s - 20 kc/s: $-1/\pm 0.5$ db
At 50 kc/s: approx. -5 db

At higher frequencies the gain decreases by approx. 12 db/octave.

Nominal Load Impedance

200 ohms (impedances between 200 ohms and 600 ohms may be used without impairing the performance of the amplifier).

Output Impedance

40 c/s - 15 kc/s: < 35 ohms
20 c/s - 20 kc/s: < 50 ohms

Output Voltage

Max. 10 V at 200-ohm load.

Harmonic Distortion at 40 c/s - 15 kc/s

Load 200 ohms. Measured at constant input level.

V_{out} at 1 kc/s	\sim db over 0.775 V	Distortion
10 V	22	$\leq 0.8\%$
6.2 V	18	$\leq 0.3\%$
3.1 V	12	$\leq 0.2\%$

Noise Level

Measured at 25°C, with input level as reference level. According to the CCIR 1949 ear-sensitivity curve and peak-value measurement.

Type 91B27 at 40 db gain: $P \leq -117$ db
Type 91B28 at 52 db gain: $P \leq -126$ db

Noise Level with flat characteristic and R.M.S. measurement:

Type 91B27 at 40 db gain: $P \leq -120$ db
 Type 91B28 at 52 db gain: $P \leq -129$ db

In the above measurements the input of the 91B27 is terminated with 200 ohms, and the input of the 91B28 is terminated with 50 ohms.

Ambient Temperature

Max. 60°C

Power Source

110 V/220 V $\pm 10\%$, 50-60 c/s (built-in stabilized power supply unit) or 24 V DC.

Power Consumption

Approx. 7 VA.

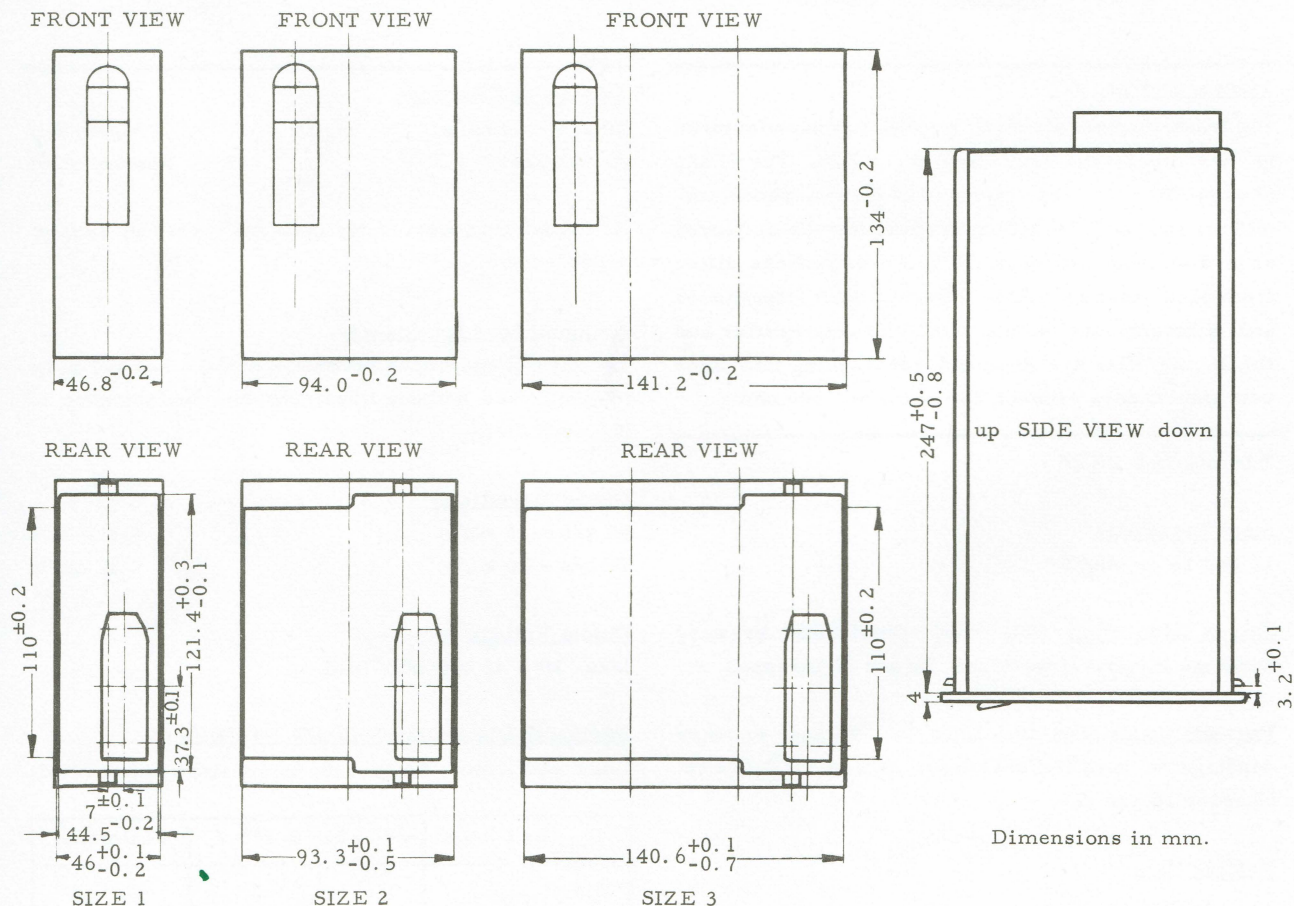
Weight

2.3 kg.

Dimensions

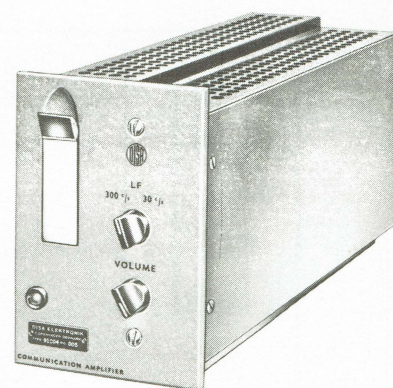
Cassette size: No. 1 - see dimensional outline.

DIMENSIONAL OUTLINE

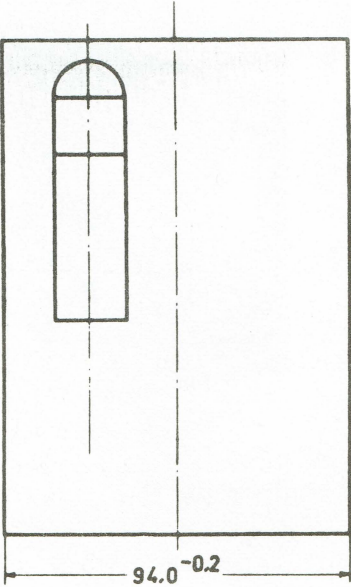


Type 91 C 04 Communications Amplifier

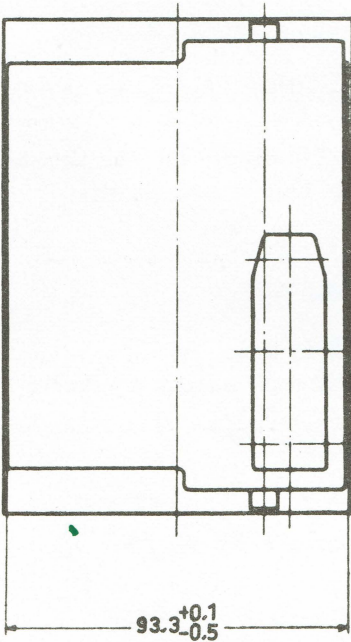
Application:	Talk-back and program monitoring amplifier.
Dimensions:	93 x 134 x 250 mm ($3\frac{21}{32}$ " x $5\frac{9}{32}$ " x $9\frac{27}{32}$ "). (Cassette Size: No. 2).
Weight:	2.7 kg.
Power Source:	100 V/220 V $\pm 10\%$, 50 - 60 c/s, (built-in stabilized power supply unit) or 24 VDC.
Power Consumption:	Approx. 15 VA.
Ambient Temperature:	Max. 60°C.
Transistors:	Three ASZ16's, four OC74's, two OC44's.
Input Impedance:	Higher than 2 k ohms from 200 c/s to 15 Kc/s.
Voltage Gain:	70 db. Can be reduced by 20 db in 10 steps, by means of a control operated from the front panel.
Frequency Response:	With flat characteristic: ± 1 db : 60 c/s - 15 Kc/s. With bass cut-off: ± 1 db : 300 c/s - 15 Kc/s. Bass cut-off by means of front-panel switch.
Optimum Load:	50 ohms/200 ohms or 3 ohms.
Output Impedance:	At 200-ohm load: lower than 60 ohms, 100 c/s - 15 Kc/s.
Output Power:	2 watts.
Harmonic Distortion:	Less than 2%.
Noise Level:	With input level as reference level: According to the CCIR 1949 ear-sensitivity curve and peak-value measurement at 70-db gain: $P \leq -120$ db. With flat characteristic and r.m.s. measurement and at 70 db gain: $P \leq -120$ db.



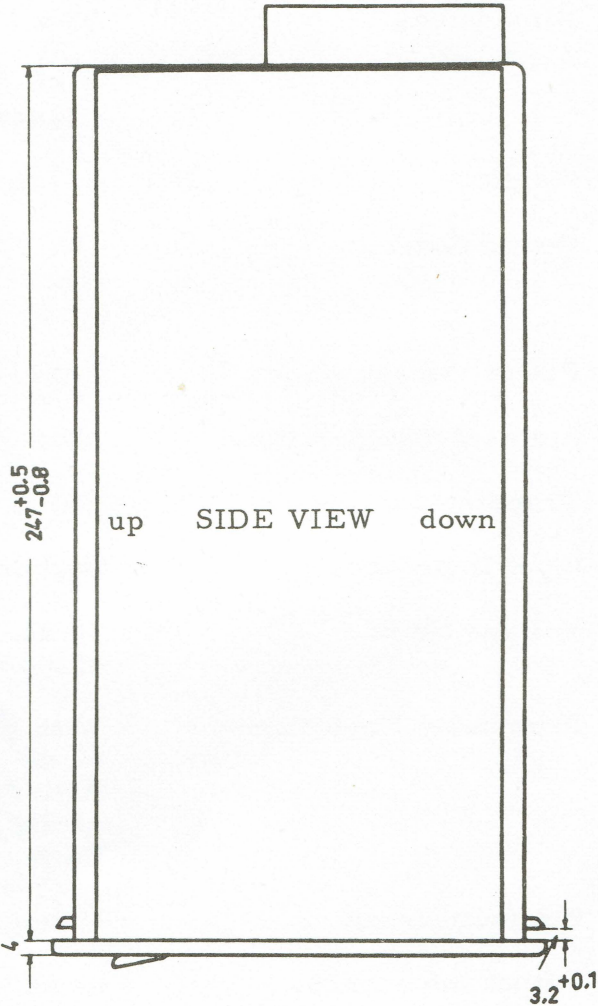
Dimensional outline



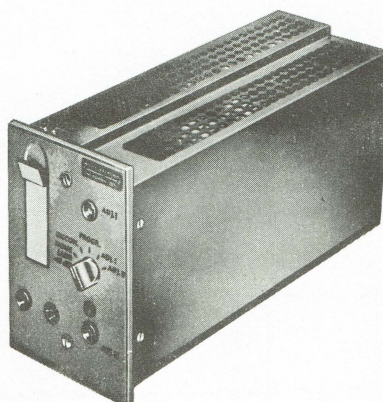
FRONT VIEW



REAR VIEW



LOGARITHMIC AMPLIFIERS, TYPES 91H01 and 91H03



Application: In conjunction with DISA light-spot indicator as volume indicator for broadcasting or recording equipment.
91H01 used with 91D02 as indicator.
91H03 used with 91G01 and 91G02 as indicator.

TECHNICAL DATA

Dimensions: 93 x 134 x 250 mm
($3\frac{21}{32}$ " x $5\frac{9}{32}$ " x $9\frac{27}{32}$ ").
(Plug-in size 2).

Weight: 4 kg. (9 lbs.).

Power Source: 110/220 volts $\pm 10\%$ 50 - 60 c/s.
(Built-in stabilized power supply).

Power Consumption: 35 VA.

Tube Complement: Two EBF80's, one 90C1, one OA2.

Input Impedance: 0 dB on scale = 3.1 volts
 Z_i greater than 40,000 ohms

0 dB on scale = 1.55 volts
 Z_i greater than 20,000 ohms

0 dB on scale = 0.775 volt
 Z_i greater than 5,000 ohms

Meter Scale: +5 dB to -45 dB.

Scale Accuracy: ± 1 dB (0 to -35 dB).

Calibration: Two built-in stabilized reference voltages normally set at 0 dB and -35 dB.

Frequency Response: Linear within ± 1 dB from 30 c/s to 15 kc/s.

Ballistic Data

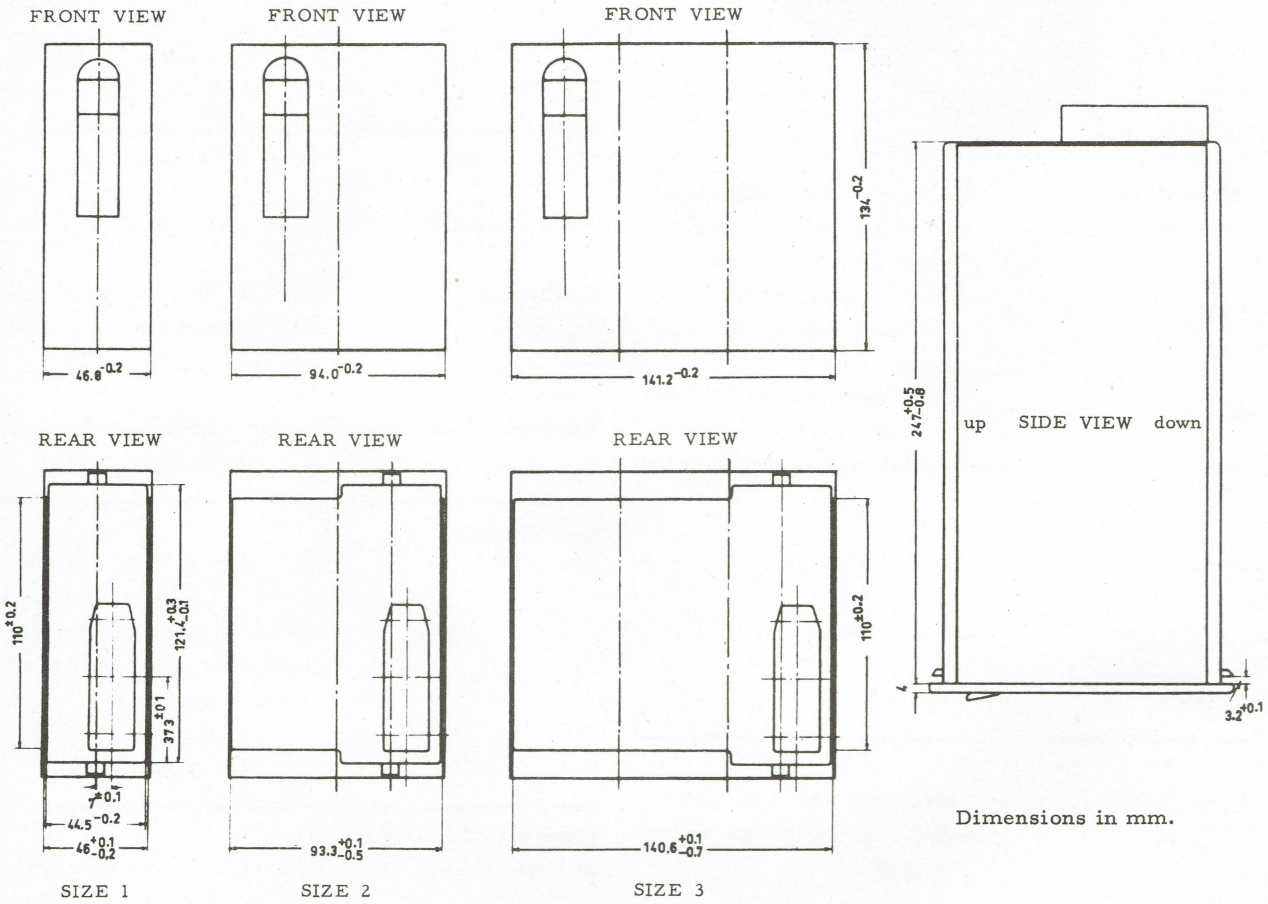
Rise Time: One cycle of a 100 c/s sine-wave will give an indication of at least 90% of the ideal indication corresponding to the sinewave amplitude.

Fall Time: 1 - 2 sec. (adjustable).

Metering Facilities on Front Panel:

Plate currents of both EBF80's
Current through the meter circuit.

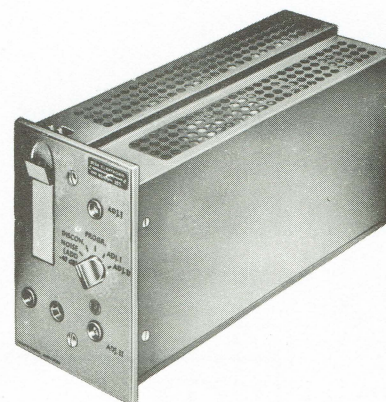
Dimensional Outline.



Logarithmic Amplifiers, Types 91H04 and 91H05

Application:

In conjunction with the DISA Light-Spot Galvanometer as a volume indicator for broadcast and recording equipment, and for noise measurements. 91H04 used with 91D02 as indicator. 91H05 used with 91G01 as indicator.



Dimensions:

93 x 134 x 250 mm ($3\frac{21}{32}$ " x $5\frac{9}{32}$ " x $9\frac{27}{32}$ ").
(Cassette size: No. 2).

Weight:

4 kg.

Power Source:

110 V/220 V $\pm 10\%$, 50 - 60 c/s
(built-in stabilized power supply unit).

Power Consumption:

40 VA.

Tube Complement:

Two EBF80's, one ECC83, one 90C1, one OA2.

Input Impedance:

0 db on scale = $3.1 \text{ V} : Z_i \geq 35 \text{ k ohms}$.
0 db on scale = $1.55 \text{ V} : Z_i \geq 20 \text{ k ohms}$.
0 db on scale = $0.775 \text{ V} : Z_i \geq 5 \text{ k ohms}$.
For noise measurements: 40-db gain increase.
0 db on scale = $31 \text{ mV} - Z_i \geq 5 \text{ k ohms}$.

Light-Spot Meter Scale:

+5 db to -45 db.

Scale Accuracy:

$\pm 1 \text{ db}$ (0 to -35 db).

Calibration:

Two built-in stabilized reference voltages, normally at 0 db and -35 db.

Frequency Response:

$\pm 1 \text{ db}$ from 30 c/s to 15 Kc/s.

Noise Measurement:

With the front-panel switch in the noise measurement position, the gain is increased 40 db.

Ballistic Data: Rise Time:

One cycle of a 100 c/s sinusoidal voltage will provide an indication of not less than 90% of the ideal indication corresponding to the sinusoidal voltage in question.

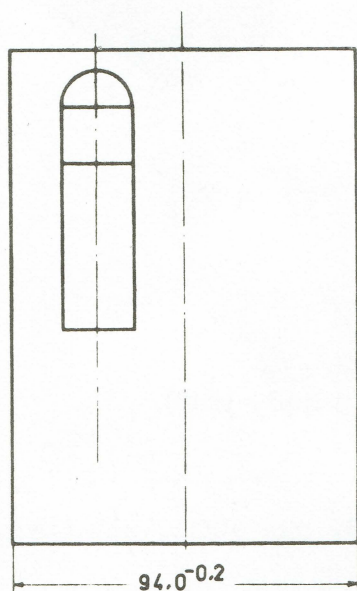
Fall Time:

1 - 2 sec. (adjustable).

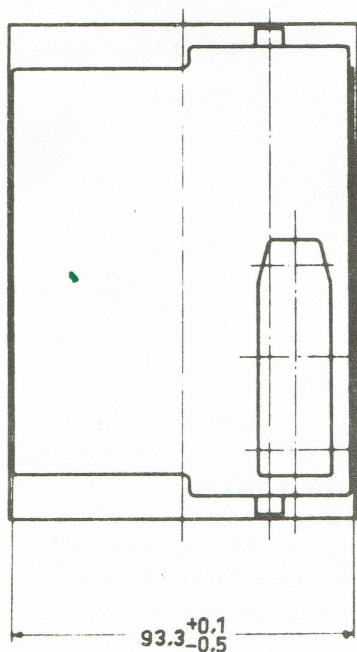
Measurement Facilities
from Front Panel:

Tube currents for the two EBF80's and the
ECC83.
Current through the light-spot meter circuit.

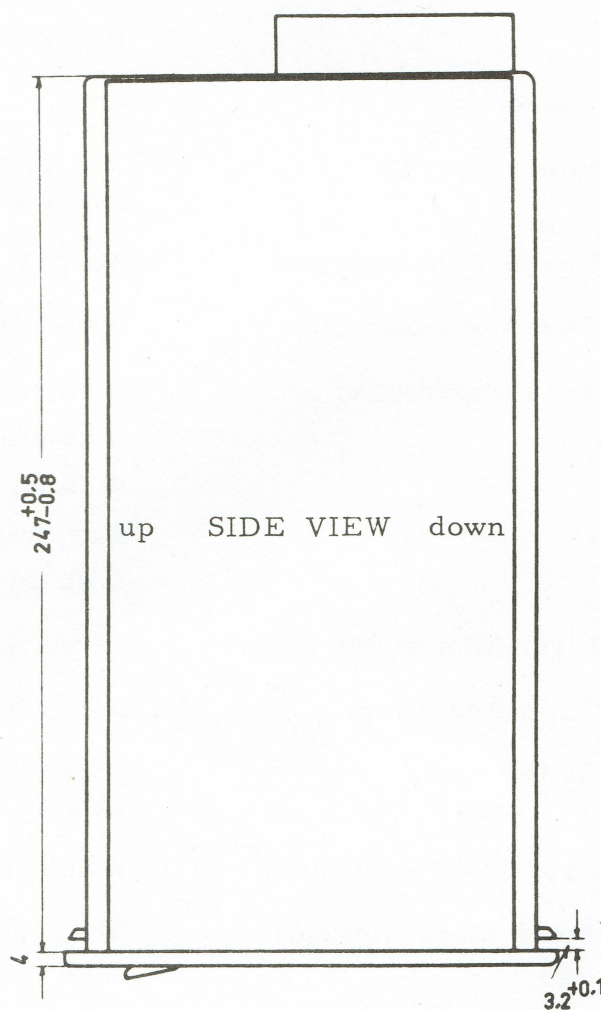
Dimensional outline



FRONT VIEW

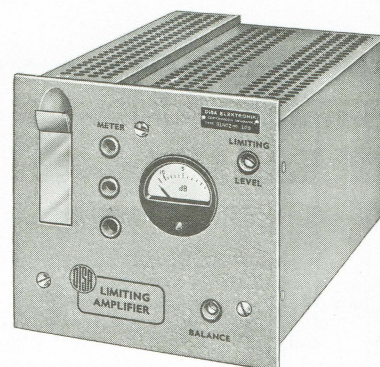


REAR VIEW

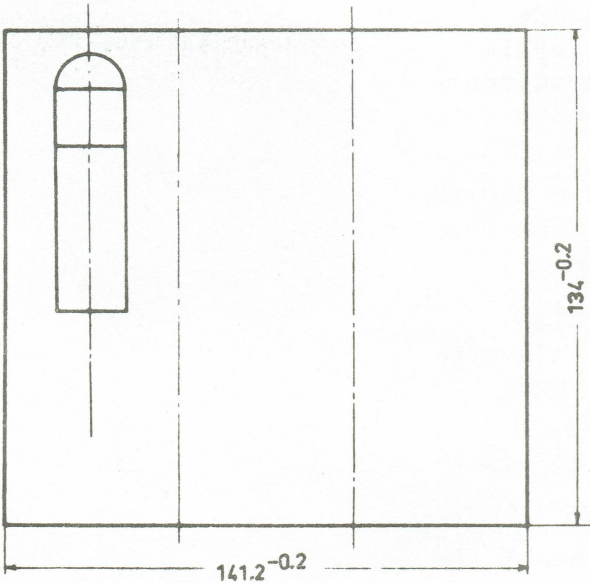


91 N 02 LIMITING AMPLIFIER

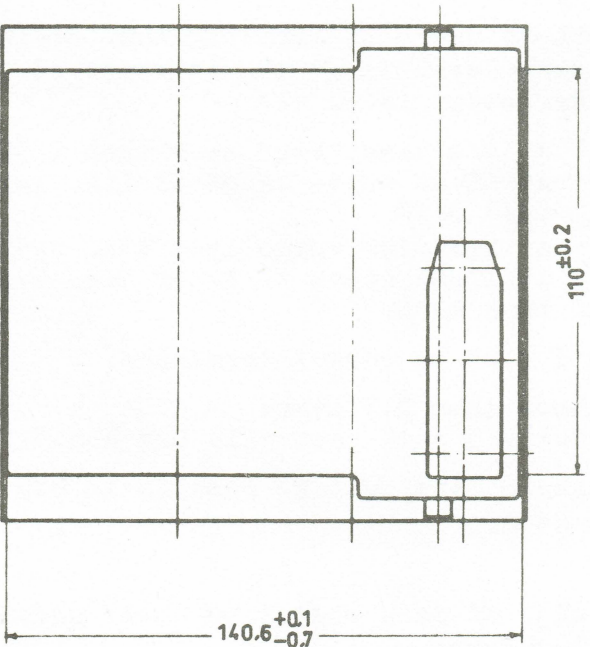
Application:	Combined line amplifier and limiting amplifier in broadcast-quality audio channels.
Dimensions:	141 x 134 x 250 mm (Plug-in size 3).
Weight:	5 kilos.
Power source:	110/220 volts ±10%, 50 - 60 c/s Built-in power supply.
Frequency response:	±0.5 dB 40 c/s - 15 kc/s.
Voltage gain:	12 dB.
Input impedance:	Greater than 5,000 ohms.
Limiting verge:	+12 dB (0~0.775 volt).
Max. gain reduction:	10 dB.
Compression ratio:	At 10 dB above verge of limiting max. deviation from limiting level is +2 dB. At verge of limiting the max. deviation is -1 dB.
Harmonic distortion:	1000 c/s: at limiting verge less than 0.3% 1000 c/s: at 10 dB above verge of lim. less than 0.5% 40 c/s: at limiting verge less than 0.5% 40 c/s: at 10 dB above verge of lim. less than 0.8%.
Noise:	Less than 300 µV on output terminals.
Time constant:	Attack: Less than 0.5 msec. Release: 0.1 - 5 sec. (normally 0.4 sec.).
Line voltage dependence:	±10% change in line voltage results in 0.5 dB change in gain.
Power consumption:	30 VA
Notch adjustment from front panel of:	1. Zero adj. of gain reduction meter scale 2. Limiting verge 3. Balance.
Tube metering facilities on front panel:	Plate currents of each section of the three tubes
Pointer-type instrument on front panel for measurement of gain reduction.	



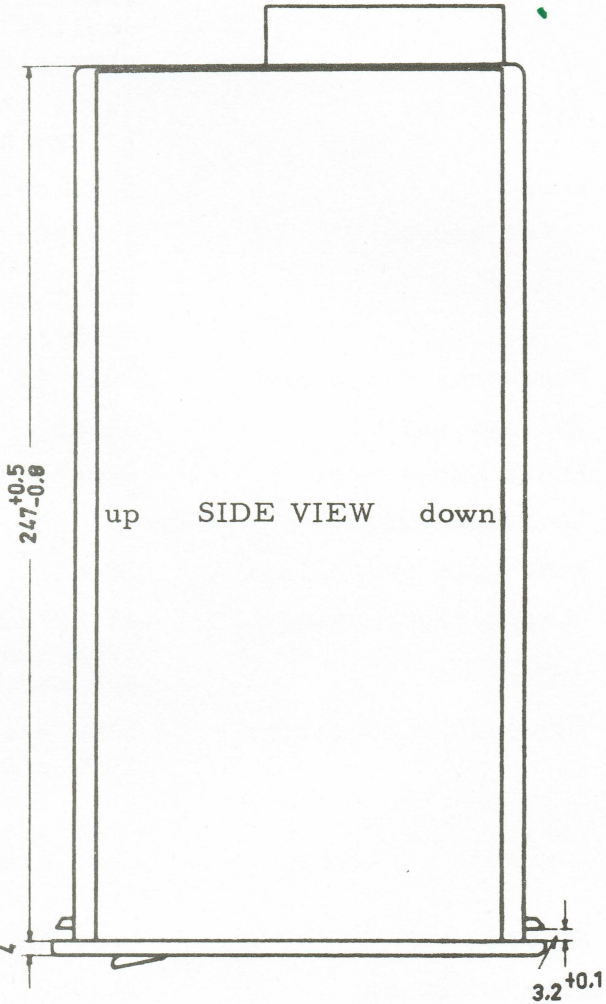
Dimensional outline



FRONT VIEW



REAR VIEW

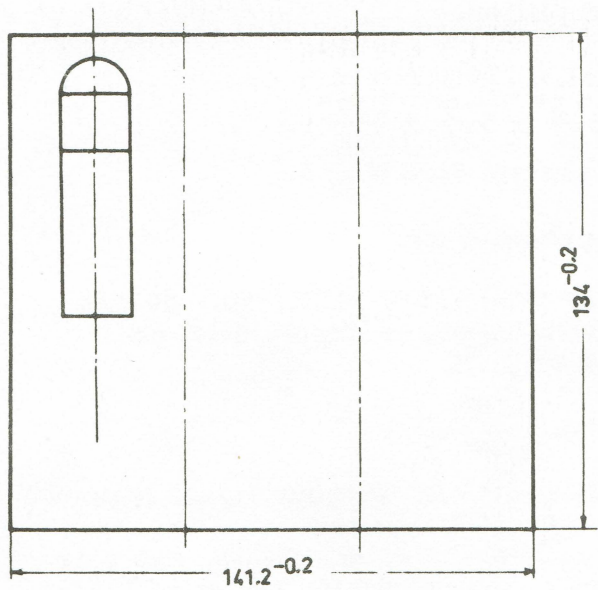


up SIDE VIEW down

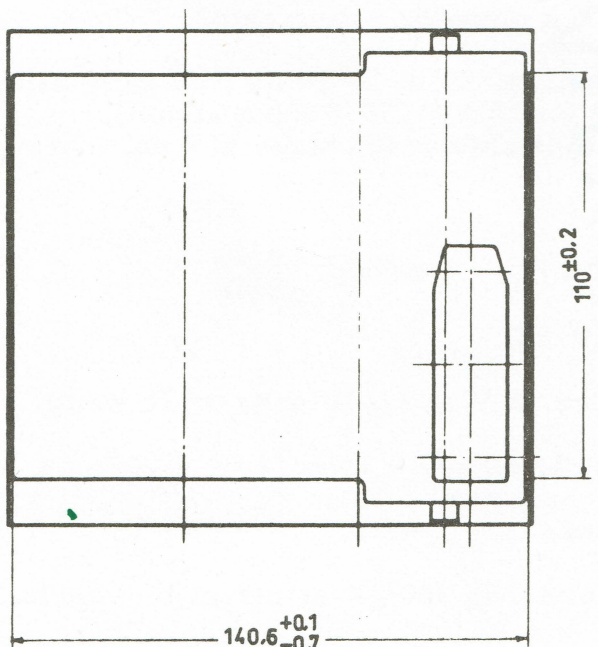
Type 91M35 20-Watt Loudspeaker Amplifier

Application:	High-quality program monitoring amplifier.
Dimensions:	141 x 134 x 250 mm ($5\frac{18}{32}$ " x $5\frac{9}{32}$ " x $9\frac{27}{32}$ ") Cassette Size No. 3.
Weight:	Approx. 5 kg.
Power Source:	220 V or 110 V $\pm 10\%$, 50 - 60 c/s (built-in power supply unit) or 24 VDC.
Ambient Temperature:	Max. 50°C.
Power Consumption:	Max. 60 VA. Without signal max. 20 VA.
Transistors:	Two 2N1907's, one OC22, one pair 2N441's, one OC26, three AC117's and two AC107's.
Input Impedance:	> 5 k ohms or > 20 k ohms.
Voltage Gain:	Approx. 20 db or 14 db (full gain utilization at 0.775 V/1.55 V input signal). Adjustable in ten steps of 2 db.
Optimum Load Impedance:	3.2 Ω .
Frequency Response:	40 c/s - 16 kc/s: +0 db -3 db
Output Impedance:	< 0.5 Ω .
Output Voltage:	Max. 8 V at 3.2 Ω load, or 20 watts.
Harmonic Distortion:	< 1%, 50 c/s - 15 kc/s.
Hum Level:	Less than 2 mV.
Noise:	Less than 300 μ V at output terminals.

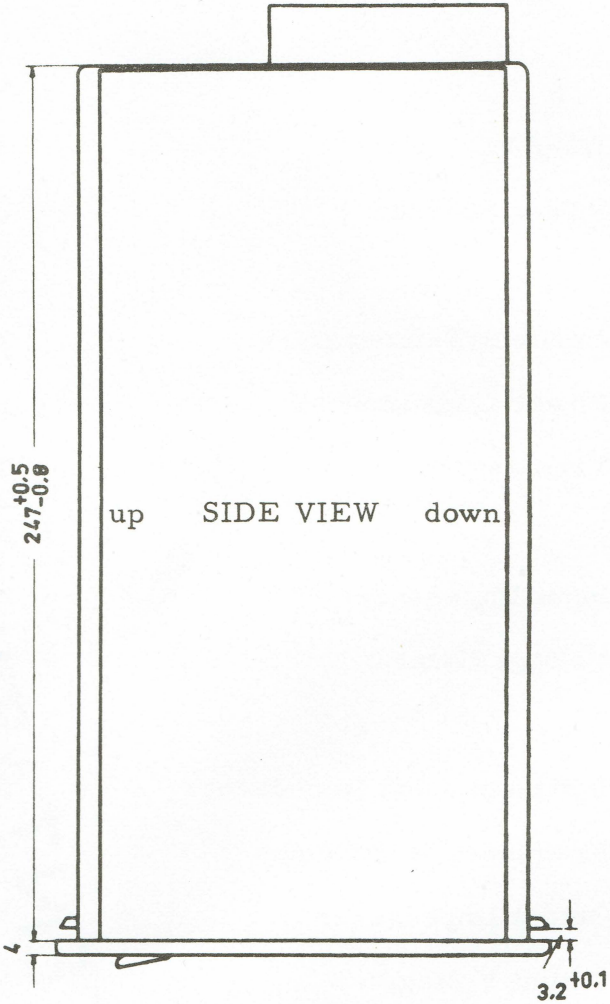
Dimensional outline



FRONT VIEW



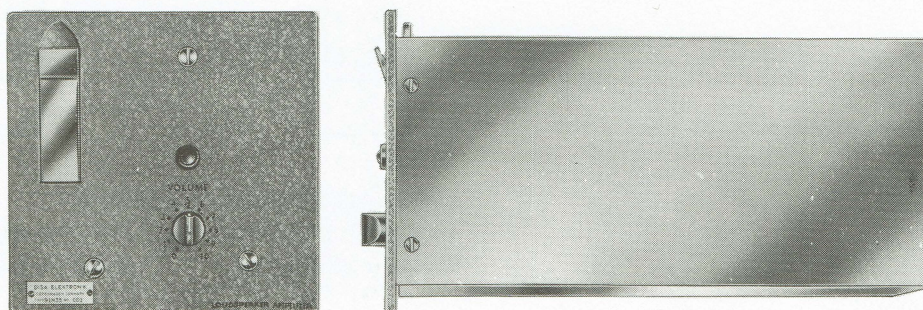
REAR VIEW



Broadcast Equipment

Data Sheet 91M35

DISA 20-Watt Loudspeaker Amplifier Type 91M35



APPLICATION

The 91M35 transistorized amplifier is a loudspeaker amplifier with a maximum output power of 20 watts into a 3.2-ohm load. It is intended for use as a monitoring amplifier in control-room, studio-amplifier and similar applications where high output power and high fidelity are required.

TECHNICAL DATA

Input Terminals

1a and 1b on plug P1 (see sketch overleaf).

Series Connection

(Input transformer primary windings in series) terminals 2a and 2b strapped.

Parallel Connection

(Input transformer primary windings in parallel) terminals 1a and 2b strapped, likewise 1b and 2a.

Gain

Max. undistorted output at input signal:

Series connection	Parallel connection
1.55 V	0.775 V

Volume Control

The voltage gain is adjustable in ten steps of 2 db.

Input Impedance at 40 c/s - 15 kc/s:

Series connection	Parallel connection
$Z_i > 20 \text{ kohms}$	$Z_i > 5 \text{ kohms}$

Nominal Load Impedance

3.2 ohms.

Output

Max. 20 watts (8 volts) at 3.2-ohm load measured at 1 kc/s.

Frequency Response

40 c/s - 16 kc/s:

+0 db/-3 db

Harmonic Distortion for max. Output

Load 3.2 ohms. Measured at constant input level.

60 c/s	1000 c/s	5 kc/s	15 kc/s
< 0.5%	< 0.5%	< 0.5%	< 1%

Output Impedance

< 0.5 ohm.

Hum Level

< 2 millivolts.

Noise Level

Less than 500 microvolts at output terminals when the output is terminated with 3.2 ohms and the input is terminated with 200 ohms and measured at 25°C.

Ambient Temperature

Max. 50°C.

Power Source

Standard connection: 110 V/220 V $\pm 10\%$, 50-60 c/s
(built-in stabilized power supply unit).

After rewiring the plug: -24 VDC. This will decrease
the max. output power to
approx. 18 watts.

Power Consumption

Max. 60 VA. Without signal max. 20 VA.

Weight

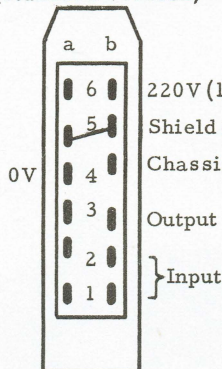
Approx. 5 kg.

Dimensions

Cassette size: No. 3 - see dimensional outline.

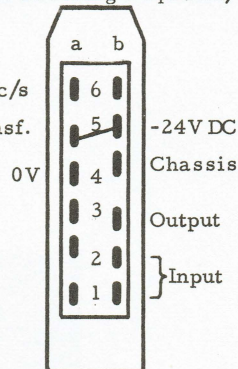
SOCKET WIRING

AC Supply
(standard version)



220V (110V), 50-60 c/s
Shield of power transf.
Chassis

DC Supply
(NB: rewiring required)



DIN 41 610

Fixed Part (mounted on amplifier)

12-contact plug strip: ordering no. 9113 L 0006

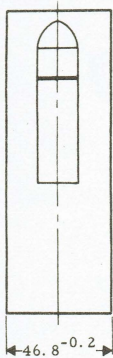
Shell for plug strip: ordering no. 9114 U 0009

For Mounting on Shelf Assembly

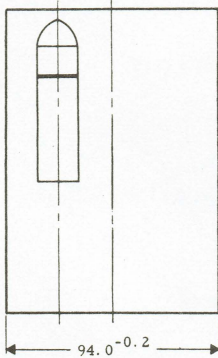
Socket strip (matching part): ordering no. 9113 M 0007

DIMENSIONAL OUTLINE

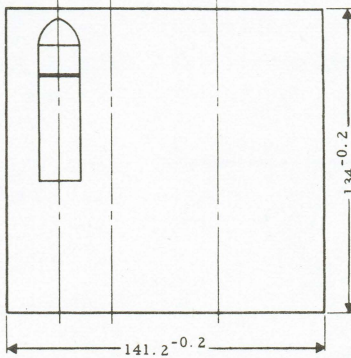
FRONT VIEW



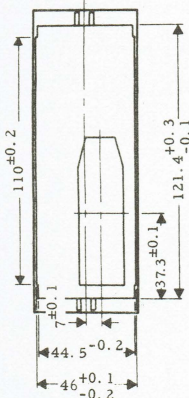
FRONT VIEW



FRONT VIEW

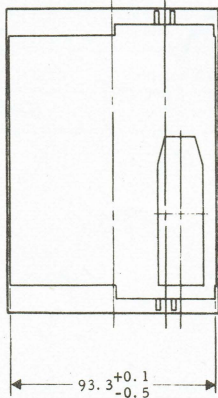


REAR VIEW



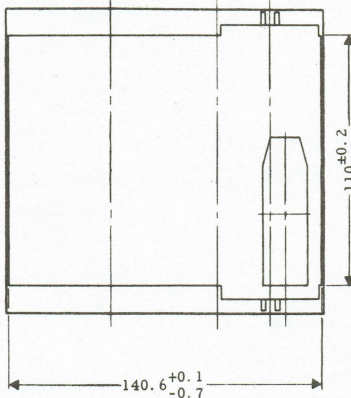
SIZE 1

REAR VIEW

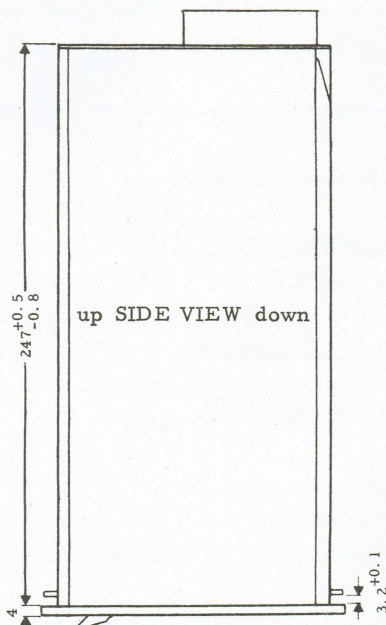


SIZE 2

REAR VIEW



SIZE 3

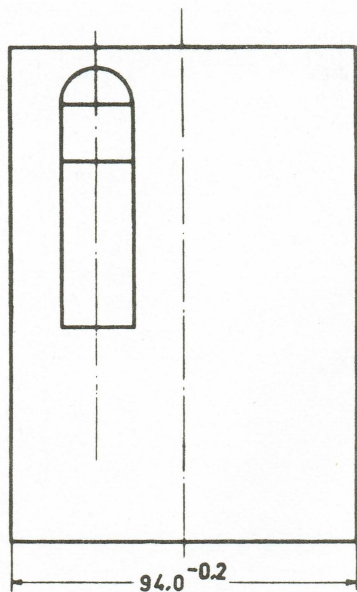


Dimensions in mm.

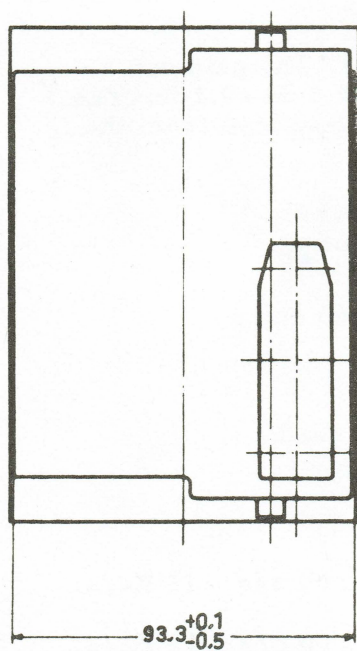
Junction Amplifier

Application:	9-channel (input) high-quality junction amplifier for broadcast, film and gramophone studios.	
Dimensions:	93 x 134 x 250 mm ($3\frac{21}{32}$ " x $5\frac{9}{32}$ " x $9\frac{27}{32}$ "). (Cassette Size: No. 2).	
Weight:	Approx. 3.5 kg.	
Power Source:	220 V (110 V) $\pm 10\%$, 50 - 60 c/s, or 24 VDC.	
Ambient Temperature:	Max. 60°C.	
Power Consumption:	Approx. 7 VA.	
Transistors:	Three ASZ16's, three OC74's ten AC107's, one OC71.	
Number of Inputs:	9.	
Input Impedance:	≥ 2.5 k ohms.	
Voltage Gain:	Max. 40 db (at 1 Kc/s). The gain can be reduced in two steps of 6 db ± 0.2 db. The voltage gain switch is operated from the front panel.	
Frequency Response:	40 c/s - 12 Kc/s: ± 0.5 db 40 c/s - 20 Kc/s: $\begin{cases} +0.5 \\ -1 \end{cases}$ db	
Output Impedance:	40 c/s - 15 Kc/s: ≤ 60 ohms.	
Optimum Load Impedance:	200 ohms.	
Output Voltage:	Max. 10 V at 200-ohm load.	
Harmonic Distortion:	(Max. temp., 60°C) at 200-ohm load:	
$V_{out} = 10$ V (~ 22 db over 0.775 V):	$\leq 0.8\%$,	60 c/s - 12 Kc/s.
$V_{out} = 6.7$ V (~ 18 db over 0.775 V):	$\leq 0.5\%$,	60 c/s - 15 Kc/s.
$V_{out} = 4$ V (~ 14 db over 0.775 V):	$\leq 0.3\%$,	40 c/s - 20 Kc/s.
Noise Level:	< -100 dbm, with input level as reference level. In the measurement the input is terminated with 200 ohms.	
Cross talk attenuation from input to input:	at 1000 c/s: > 92 db at 12000 c/s: > 80 db	

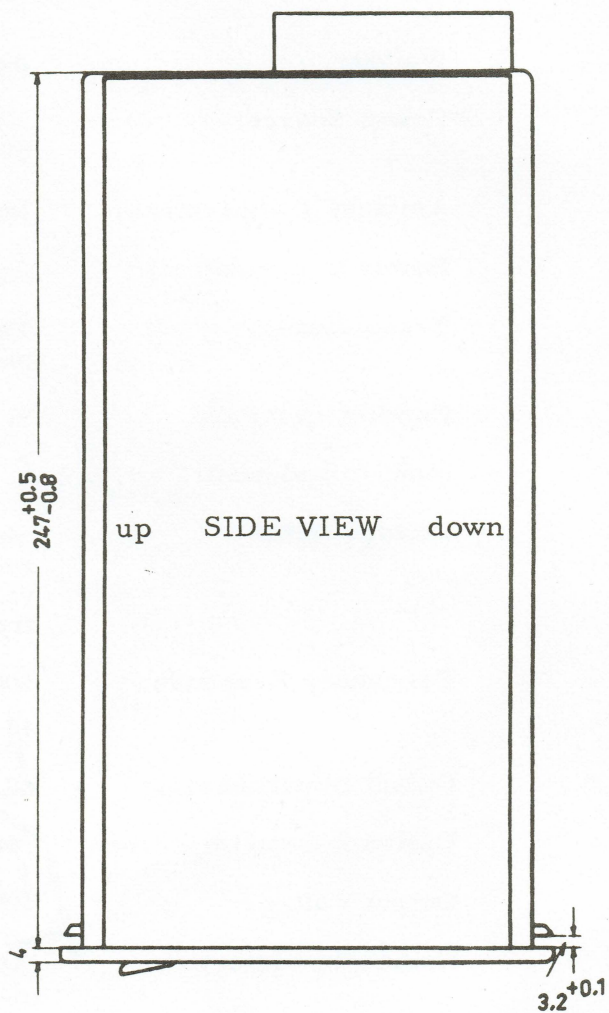
Dimensional outline



FRONT VIEW



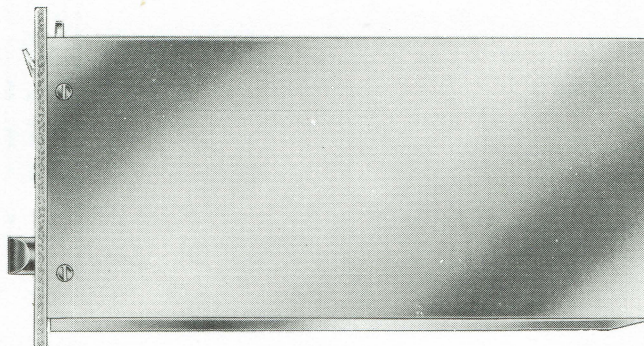
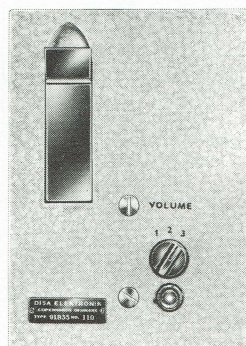
REAR VIEW



Broadcast Equipment

Data Sheet 91B37

Type 91B37 Junction Amplifier



APPLICATION

The transistorised junction amplifier has been developed for eliminating the bridging point attenuation which is a result of the conventional parallel connection. Nine channels may be connected to the inputs. The nine inputs are effectively isolated from each other. The amplifier is designed as a line sending amplifier.

TECHNICAL DATA

Voltage Gain

Max. 40 db.

The gain can be reduced in two steps of 6 db without affecting the signal/noise-ratio. The voltage gain switch is operated from the front panel.

The gain can be increased to 46 db by rewiring the input transformers. This will decrease the input impedance by a factor of 4.

Output Voltage

Max. 10 V at 200-ohm load.

◆ Nominal Load Impedance

200 ohms (impedances between 200 ohms and 600 ohms may be used without impairing the performance of the amplifier).

Number of Inputs

9.

Input Impedance at 40 c/s - 15 kc/s

1000 ohms -10/+20%.

Frequency Response

40 c/s - 20 kc/s:

-1/+0.5 db

at 50 kc/s:

approx. -4 db

Output Impedance

40 c/s - 15 kc/s:

< 35 ohms

20 c/s - 20 kc/s:

< 50 ohms

Harmonic Distortion at 40 c/s - 15 kc/s

Load 200 ohms. Measured at constant input level.

V_{out} at 1 kc/s	~db over 0.775 V	Distortion
10 V	22	$\leq 0.8\%$
6.2 V	18	$\leq 0.3\%$
3.1 V	12	$\leq 0.2\%$

Noise Level

Measured at 25°C, with input level as reference level.

According to the CCIR 1949 ear-sensitivity curve and peak-value measurement.

At 40 db gain: $P \leq -108$ dbm

Noise Level with flat characteristic and R.M.S. measurement.

At 40 db gain: $P \leq -110$ dbm

In the above measurements each of the nine inputs is terminated with 200 ohms.

Cross Talk Attenuation

From input to input

at 1000 c/s:

> 92 db

at 12000 c/s:

> 80 db

Ambient Temperature

Max. 60°C.

Power Source

Standard connection: 110 V/220 V $\pm 10\%$, 50-60 c/s
(built-in stabilized power supply unit).
After rewiring the plug: -24 V DC (built-in stabilizer will accomodate DC- or AC-variations within -23 V DC and -28 V DC).

Power Consumption

Approx. 7 VA.

Weight

Approx. 3.5 kg.

Dimensions

Cassette size: No. 2 - see dimensional outline.

Fixed Part (mounted on amplifier)

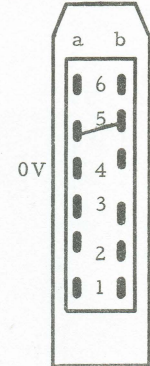
12-contact plug strip: ordering no. 9113 L 0006
Shell for plug strip: ordering no. 9114 U 0009
23-contact plug strip: ordering no. 9113 L 0009

For Mounting on Shelf Assembly

Socket strip
(12-contact matching part): ordering no. 9113 M 0007
Socket strip
(23-contact matching part): ordering no. 9113 M 0010

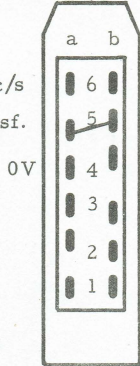
SOCKET WIRING-Viewed from inside of amplifier.

DIN 41 610
AC Supply
(standard version)



220V (110V), 50-60 c/s
Shield of power transf.
Chassis
Output

DC Supply
(NB: rewiring required)



-24V DC
Chassis
Output

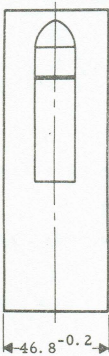


P3

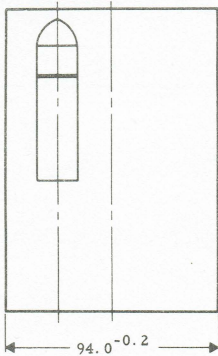
Input	Contacts
1	1 and 23
2	2 and 22
3	3 and 21
4	4 and 20
5	5 and 19
6	6 and 18
7	7 and 17
8	8 and 16
9	9 and 15

DIMENSIONAL OUTLINE

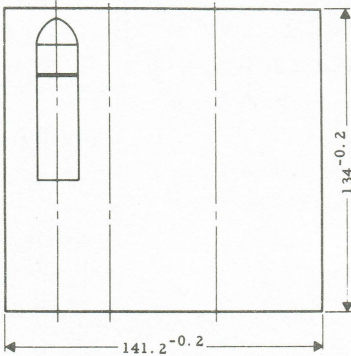
FRONT VIEW



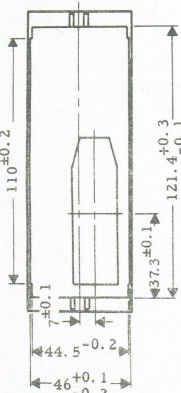
FRONT VIEW



FRONT VIEW

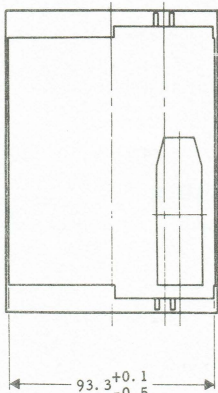


REAR VIEW



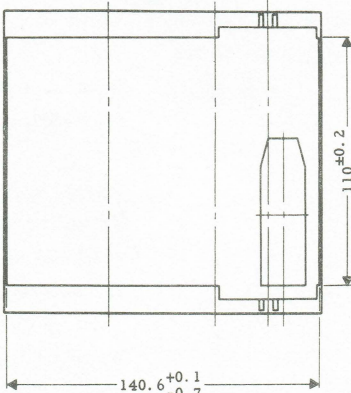
SIZE 1

REAR VIEW

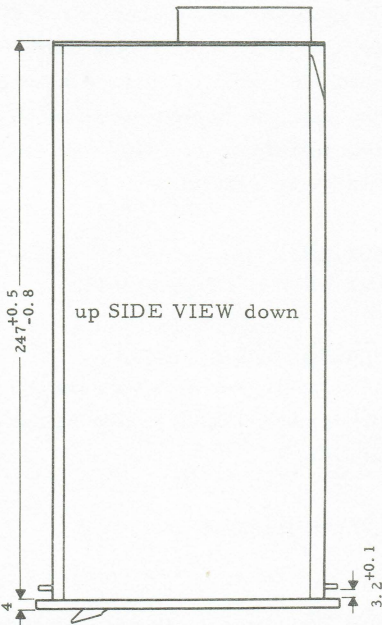


SIZE 2

REAR VIEW

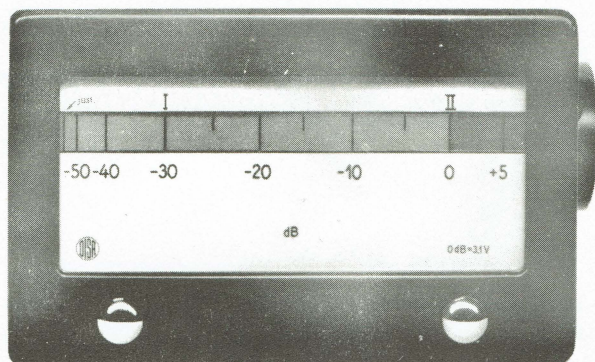


SIZE 3



Dimensions in mm.

TYPE 91D02 LIGHT SPOT METER



Application:

In conjunction with type 91H01 and type 91H04 logarithmic amplifier as a volume indicator for broadcasting, film, and gramophone studios.

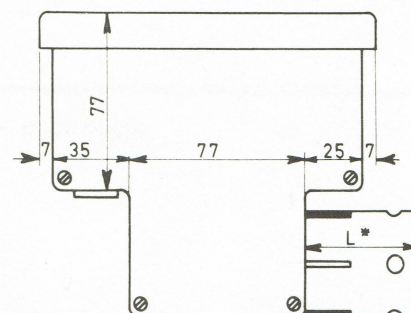
The high speed and sensitivity of the instrument can be utilized wherever an exact indication of voltage or current pulses is desired.

TECHNICAL DATA

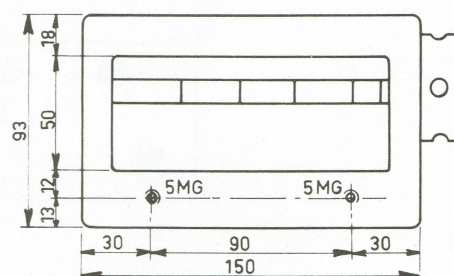
Dimensions:	See dimensional outline.
Weight:	2.1 kg. (4 lbs. 10 oz.).
Scale Length:	120 mm.
Sensitivity:	30 μ A/mm.
Internal Impedance:	Approx. 1000 ohms.
Ballistic Data:	(Generator internal impedance greater than 50,000 ohms).
Rise Time:	Less than 20 msec.
Overshoot:	Less than 4%.
Lamp:	6 or 12 volts, 15-watt auto lamp.
Standard Scales:	See overleaf.

Dimensional Outline.

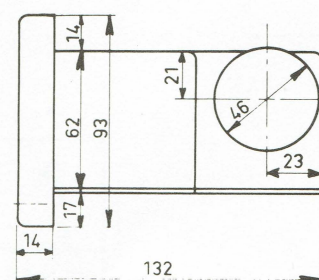
Dimensions in mm.



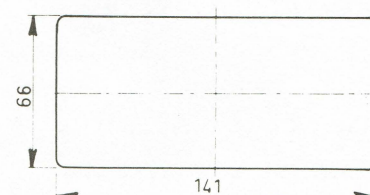
BOTTOM VIEW



FRONT VIEW



RIGHT-HAND VIEW

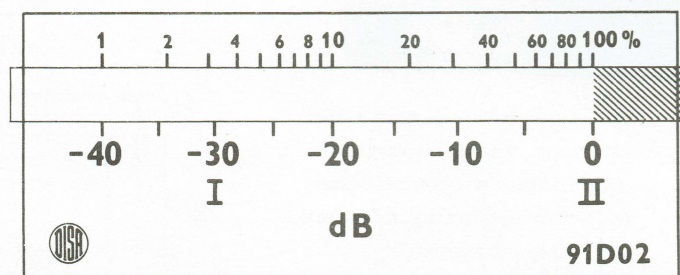


CUTOUT FOR MOUNTING

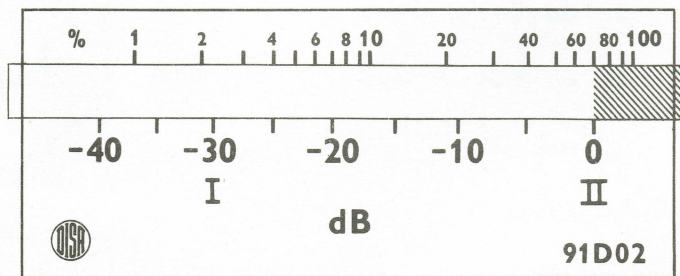
x) 91D02: L = 50 mm.
91D02 K: L = 25 mm.
(91D02 K has inferior optical characteristic).

Please state type number of scale when ordering instruments!

STANDARD SCALES FOR 91D02 LIGHT SPOT METER



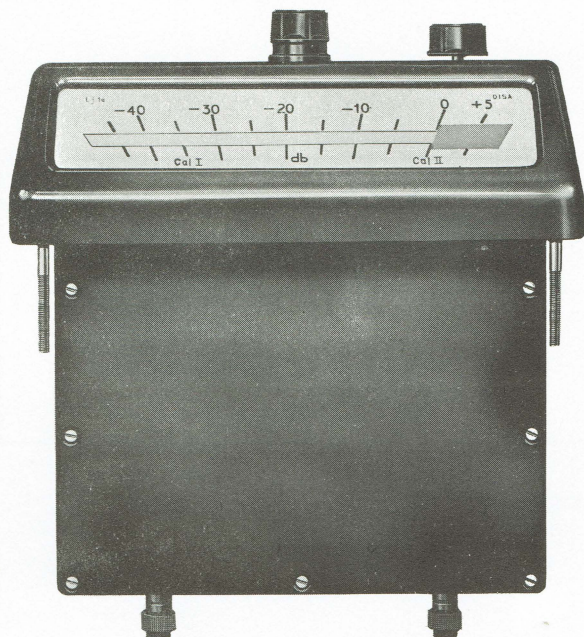
Scale Type 91D161



Scale Type 91D162

0 dB	~	0 mA
- 5	~	0.35
-10	~	0.73
-15	~	1.10
-20	~	1.49
-25	~	1.85
-30	~	2.19
-35	~	2.51
-40	~	2.80

TYPE 91G01 AND TYPE 91G02 LIGHT SPOT METER



Application:

In conjunction with a type 91H03 logarithmic amplifier as a volume indicator for broadcasting, film, and gramophone studios.

The high speed and sensitivity of the instrument can be utilized wherever an exact indication of voltage or current pulses is desired.

TECHNICAL DATA

Dimensions: See dimensional outline.

Weight: 5 kg. (11 lbs.).

Scale Length: 200 mm.

Sensitivity: 16 $\mu\text{A}/\text{mm}$.

Internal Impedance: Approx. 1000 ohms.

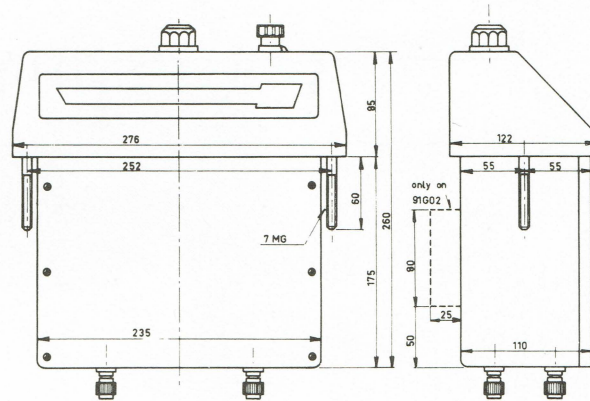
Ballistic Data: (Generator internal impedance greater than 50,000 ohms).

Rise Time: Less than 20 msec.

Overshoot: Less than 4%.

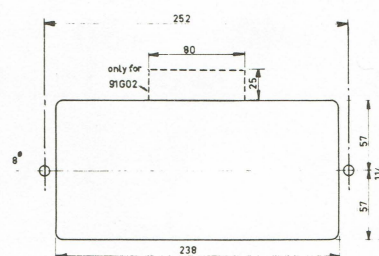
Dimensional Outline.

Dimensions in mm.



BOTTOM VIEW

LEFT-HAND VIEW



CUTOUT FOR MOUNTING

The 91G02 has two separate galvanometers (one green and one orange spot) and is intended for use in stereo applications.

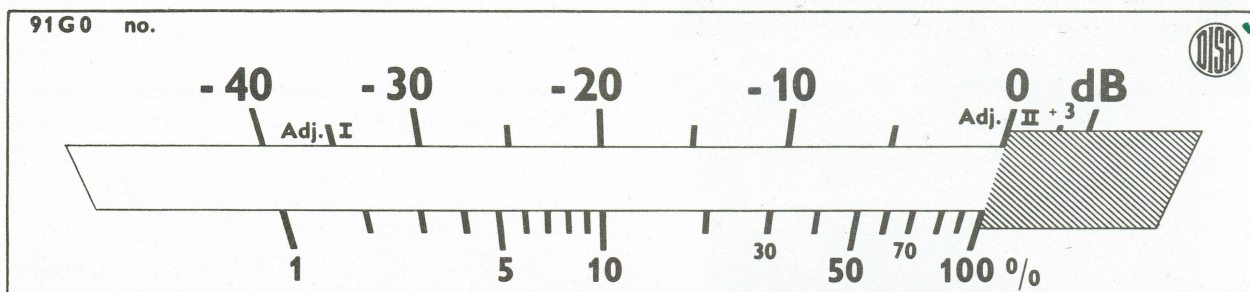
Lamp: 6 or 12 volts, 15-watt auto lamp.

The lamp may be adjusted or replaced from the front. A regulator for light intensity is provided on front panel.

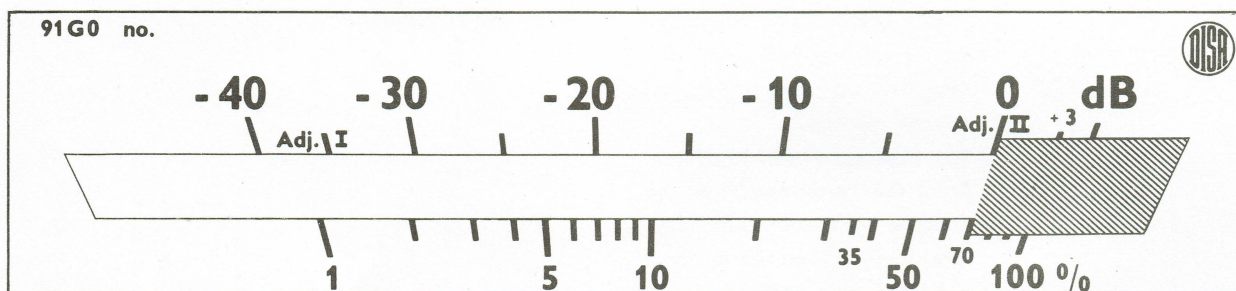
Standard scales: See overleaf.

Please state type of scale when ordering instruments!

STANDARD SCALES FOR TYPE 91G01 AND TYPE 91G02 LIGHT SPOT METER



Scale Type 91D153



Scale Type 91D154

+5 dB ~ 0.40 mA

0- ~ 0.69-

- 5- ~ 0.97-

-10- ~ 1.26-

-15- ~ 1.53-

-20- ~ 1.82-

-25- ~ 2.10-

-30- ~ 2.34-

-35- ~ 2.56-

-40- ~ 2.73-

ANCILLARY EQUIPMENT FOR PLUG-IN AMPLIFIERS.

6 POSITION MINIATURE METER SOCKET TYPE 91F02 and METER PLUG TYPE 91F01.

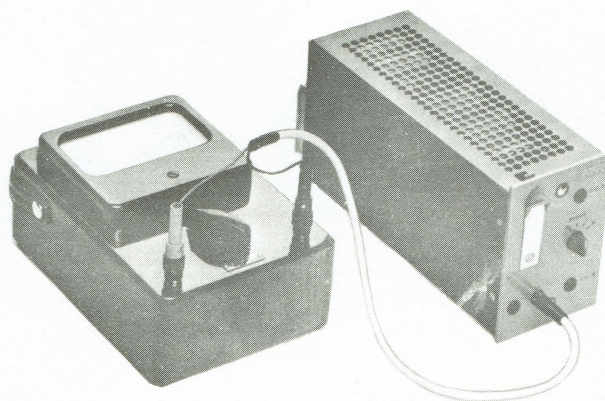
DISA plug-in amplifiers are provided with this socket for metering purposes. Its small size makes it useful wherever metering facilities are desired in compact equipment.

6 separate two pole connections can be made by turning the plug in steps of 60° .



METER TYPE 91F20.

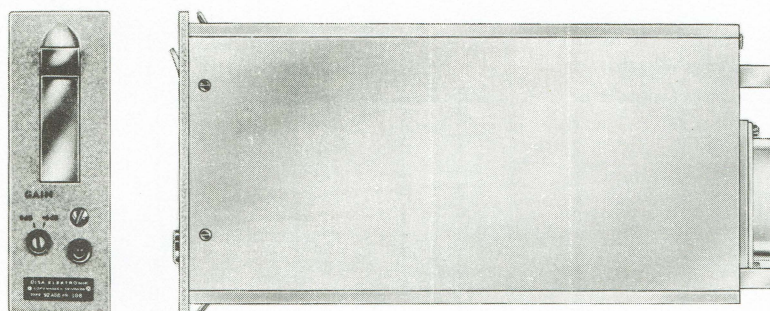
This instrument for use in conjunction with DISA audio & video amplifiers is provided with 5 ranges from .5 to 50 mA measured as a voltage across a 100 ohms standard shunt built into the amplifier. For use with video amplifiers the meter is provided with a 2.5 volts 50.000 ohms range



BROADCAST EQUIPMENT

Data Sheet 92A06

Type 92A06 Video Amplifier



APPLICATION

Distribution amplifier for video signals.

TECHNICAL DATA

Input Impedance

10 k ohms shunted by 20 pF.

Voltage Gain

0 dB or + 6 dB switchable, adjustable ± 1 dB.

Number of Outputs

6.

Output Impedance

75 ohms.

Nominal Load

75 ohms. Any number of output terminals can be open, and a maximum of 2 outputs can be shorted or mismatched without affecting the remaining outputs.

Output Voltage

Max. 2 volts p-p composite video.

Isolation

Between output lines: minimum 34 dB at 5 Mc/s.

Frequency Response

Linear within ± 0.2 dB up to 6 Mc/s, within ± 1 dB to 10 Mc/s.

Rise Time

Max. 0.025 μ s.

Overshoot

Max. 2% (rise time of test signal 0.040 μ s).

Tilt

Max. 2% (50 c/s square wave).

Linearity

Better than 0.96.

Ambient Temperature

-20°C to +50°C.

Power Consumption

4 VA, 110/220 volts, 50 - 60 c/s (built-in stabilized power supply).

Dimensions

47 x 134 x 250 mm. ($1\frac{27}{32}$ " x $5\frac{9}{32}$ " x $9\frac{27}{32}$ ").
(Cassette size: No. 1).

Weight

1.8 kg.

Dimensional Outline.

