



# Univox<sup>®</sup> DLS-70

Loop amplifier, 25 VA, 70 m<sup>2</sup>

## Features

- High output current 19 App
- Driven by a 25VA transformer
- Short circuit proof
- Automatic resettable fuse
- One line input
- Two microphone/line inputs
- Loop sound indication for door/telephone signals
- Dual action AGC for high speech intelligibility
- Separate bass- and treble controls
- Loop function LED indicator
- Mains power LED indicator
- Suitable for box/cashier offices, schools, home interior and public sector
- Well proven high quality loop technology

Univox<sup>®</sup> DLS-70 is a genuine current controlled loop amplifier for permanent installations. The system is developed to meet high demands on a longtime economical and safe use together with hearing instruments.

DLS-70 is a flexible amplifier with both line and microphone inputs suitable for loop-installations in cashier offices, information counters and other premises where a small, no overspill loop, is needed. Instead of using loop cables a loop pad can easily be mounted under the counter. It gives a stable and increased speech intelligibility with automatic sound level control, thanks to the built-in Dual Action AGC circuit.

DLS-70 fulfils the IEC 60118-4, British Standard and NNH requirements for loop amplifiers.

DLS-70 covers areas up to 70 m<sup>2</sup>. The short-circuit proof output with 10 A RMS gives a secure and powerful amplifier with a large safety margin.





## Technical data

<b>Power</b>		230-240 V AC 50 Hz. 2.5-25 W
<b>Area of coverage</b>		70 m <sup>2</sup> according to IEC 60118-4:2006, 2-turn-loop. 50 m <sup>2</sup> according to IEC 60118-4:2006, 1-turn-loop.
<b>Outputs</b>	Loop terminal	50 A pp, 1 ms, 1 kHz, short-circuit 10A RMS, 10ms, 1kHz 7A RMS, 125ms, 1kHz
	Max voltage	31V pp
	Frequency response	100-5000 Hz (±3dB)
	Distortion	<1%
	Connection	Screw-terminal or 2-pole DIN-connector on the rear panel. For loop cable, loop pad or headphone.
<b>Inputs</b>	MIC 1/MIC 2	3.5mm connector. 7mV/4.5kΩ with built-in phantom voltage.
	LINE	3.5mm connector. 30mV-10V/56kΩm.
	Indication	4.5-24V AC/DC or short circuit function. When activated a reech harmonic indication signal is transmitted through the loop.
<b>Dual Action AGC</b>	Working range	>70dB
	Attack time	2-500ms
	Release time	0.5-20dB/s
<b>Controls</b>	Bass control	0 - +12dB, trimmer potentiometer on the front panel
	Treble control	0 - +9dB, trimmer potentiometer on the front panel
	Loop adjust	0-70 m <sup>2</sup> , trimmer potentiometer on the front panel
<b>Indications</b>	Mains connection	LED, front panel
	Loop current indicator	LED, front panel
<b>Other</b>	Dimensions	208x50x100mm (WxHxD)
	Weight	1.1kg
	Colour	Dark grey
	Part No	211020
<b>Note</b>	Dual Action AGC	The attack/decay times are dynamically set by the program material.
	TV set without scart	Use microphone, Part No 242401. Attach on the loudspeaker and connect to input No 1 or 2.

## General planning procedures

- A two-turn loop is gives the optimum performance for DLS-70 but one-turn can be used with a reduced coverage area
- Flat copper foil can be used as an alternative
- Metal reinforcement reduces the field strength
- Do not place input cables close to/in parallel with the loop wire
- Do not place the loop wire close and in parallel to reinforcement iron and such like
- If the smallest distance in a loop exceeds 5-10 meters, please consider another loop configuration, like the "eight"-loop or preferable the Univox® SLS – Super Loop System®
- If the overspill is not acceptable, use Univox® SLS. [www.univox.eu](http://www.univox.eu) for more information
- Beware of the background noises created by other electrical equipment when planning the loop system
- Always perform a final measurement with the actual signal source, using Univox® FSM Field Strength Meter according to the IEC 60118-4:2006 standard.

### Recommended minimum loop wire area for DLS-70 when installed to an existing loop system

Loop area	Wire area 1-turn-loop	Wire area 2-turn-loop
50-70 m <sup>2</sup>	not recommended	>=2x1.5 mm <sup>2</sup>
0-50 m <sup>2</sup>	1.0 mm <sup>2</sup>	>=2x1.0 mm <sup>2</sup>

## Common Accessories

### Univox Listener

This easy to use loop listener indicates field strength levels of 400 mA/m and 200 mA/m in accordance with IEC 60118-4. It is an essential tool for the facility manager as well as an alternative assistive listening device for the Hard of Hearing.



### Univox FSM 2.0

Engineered for simplicity, the Univox FSM 2.0 is a microprocessor controlled field strength meter featuring a simple 5 step programme for commissioning loop systems to the performance standard IEC 60118-4.



### Copper foil

This insulated 25 mm wide copper foil is only 0.25 mm thick and is easily concealed under most floor finishes. It is ideal for multi loop and Super loop installations.



### Wireless microphone system

Univox offer a range of wireless microphones and receivers which can be used in conjunction with any loop system or independently as an assistive listening system where an induction loop system is not practical.



The User Guide, Installation Guide and Certificate of Conformity are available on both of our websites for download.