



Univox® PLS-X1, X3 and X5

The next generation of loop drivers

Features

- 5 year warranty
- 1U high and ½ width (19" rack) for side by side mounting to save rack space
- Parametric Metal-Loss-Control for various types of metallic influences
- Built-in System diagnostics, to isolate a system malfunction
- Programmable XLR, RCA and screw terminal input connectors
- Dual Action AGC for unsurpassed intelligibility
- Low frequency masking filter for voice enhancement
- 50-100 V input
- Voice alarm system input that overrides all other input signals
- No internal fans are needed as there is no power leakage. Cooling is due to efficient design
- 10 W output for connecting a speaker to monitor/verify driver activity
- Front panel placed controls for easy installer access
- Recessed controls to prevent tampering

Space and power efficiency

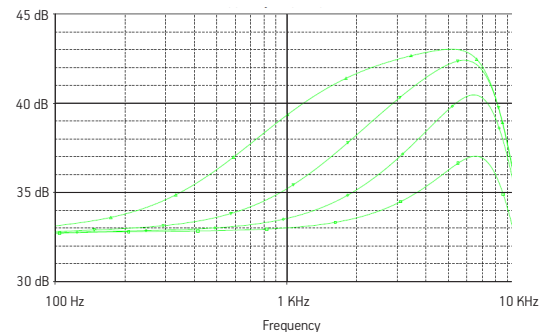
PLS-X1, X3 and X5 are the most efficient professional loop drivers available. The units are only 1U high and ½ widths, making it possible to mount two drivers in one single 19" rack mount. Univox PLS-X series uses a 90 % efficient electronic transformer. Energy waste in a conventional power supply is comparably 8-9 times higher. Weight is reduced by use of significantly less copper and other metals than conventional loop drivers, leaving a much smaller carbon footprint. PLS-X loop drivers produces an amazingly clear sound which is not possible using conventional toroid transformers as modulation distortion is unavoidable.

The self-diagnostic system

When activated, input connection, AGC, pre and power driver and consistency of loop conductor will be diagnosed. The diagnostics will indicate what systems are operational and which are not. The built-in signal generator, which is part of the self-diagnostic system, can be used to set just the output level if a different signal source is not available.

Enhanced metal compensation

Univox PLS-X's are equipped with a unique Parametric MLC (Metal Loss Correction) to fine tune for the effects of metal loss. It allows the installer to further compensate for metal damping effects and not just simply by increasing level from one starting frequency. *See graph.*



Coverage Area in m²

Attenuation:	No Metal Loss*			Metal Loss**			High Metal Loss***		
Loop Design	X1	X3	X5	X1	X3	X5	X1	X3	X5
Perimeter, 1:1 Aspect Ratio	130	260	450	50	50 ¹	50 ¹	-	-	-
Perimeter, 1:2 Aspect Ratio	170	330	600	100	100 ¹	100 ¹	-	-	-
Figure 8, 1:1 Aspect Ratio	250	450	900	200	440	780	140	260	400

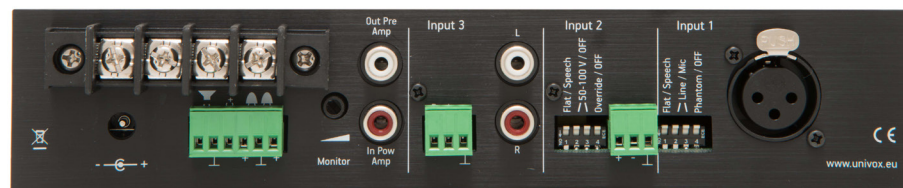
* Free field, up to 25 m loop segment width

** 4.5 dB attenuation, max 7 m segment width

*** 8 dB attenuation, max 4 m segment width

¹ Coverage area limited by max segment width

	PLS-X1	PLS-X3	PLS-X5
Induction Loop Output RMS 125 ms			
Max Drive Voltage	16.6 Vpp/5.9 Vrms	27 Vpp/9.5 Vrms	35.8 Vpp/12.7 Vrms
Max Drive Current	5.8 Arms	7.2 Arms	9.8 Arms
Power			
Power supply	110-240 VAC primary switched class V electronic power supply		
Back panel interface			
Audio Input 1	Balanced XLR Programmable Bass Cut Filter@150 Hz - Speech/Flat, Line/Mic, Phantom Power +12 VDC On/Off Sensitivity: -50 dBu (2.5 mVrms) to +10 dBu (2.6 Vrms)		
Audio Input 2	Balanced Phoenix Screw Terminal Block Programmable Bass Cut Filter@150 Hz - Speech/Flat, 50-100 V Override: Input 3 signals higher than -6 dB above AGC-knee overrides all other input signals Sensitivity: -15 dBu (50 mVrms) to +20.6 dBu (8.3 Vrms)		
Audio Input 3	Unbalanced RCA and Phoenix Screw Terminal Block Sensitivity: -24 dBu (30 mVrms) to +16.2 dBu (5 Vrms)		
Out Pre-amplifier	Buffered output to connect multiple drivers		
In Power-amplifier	Input for connecting multiple drivers		
Monitor connection	Phoenix Screw Terminal Block to LED and 10W speaker monitor		
Monitor control	Recessed trim potentiometer for 10W speaker and 3.5 mm front panel output		
Front panel interface			
Input 1-3	4 LED indicators (-18 dB to +12 dB), recessed trim potentiometers		
Metal loss control	Switchable frequency knee point (100 Hz, 500 Hz, 1 kHz, 2 kHz) Adjustable gain slope from 0 to 4 dB/octave		
System Diagnosis	Checks Input connection, AGC, Pre and Power driver and Loop conductor with a pulsed 1 kHz signal (built in signal generator) On/Off switch to operate system, single LED indication		
Peak / Clipping Monitor	LED indicates if signal is peaking/clipping 3.5 mm jack to monitor loop with headset		
Other Systems and Functions			
Frequency response	75-6800 Hz		
Distortion	< 1%		
Dual Action AGC	Dynamic Range: > 50-70 dB (+1.5 dB) Attack time: 2-500 ms, Release time: 0.5-20 dB/s		
Cooling	Internal cooling element		
Physical			
Size	½ width 1U 19" rack mount Width 210 mm, Depth 255 mm, Height 44 mm		
Mounting options	1U 19" rack mount (brackets included)* or Freestanding <i>* Brackets for mounting side-by-side with another PLS-X, needs to be ordered separately.</i>		
Weight	1.6 kg	1.7 kg	1.7 kg
Weight incl. power supply	2.4 kg	2.65 kg	2.65 kg
Part No	217100	217300	217500



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.



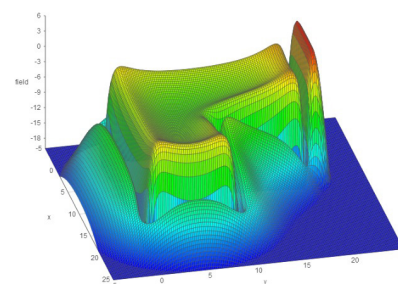
Copper foil

This insulated 25 mm² 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.



Univox Loop Designer

Univox Loop Designer is a tool to aid in the design of Hearing Loop Systems in accordance with the International Induction Loop System performance standard IEC 60118-4.



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