PO-XX Line output isolator

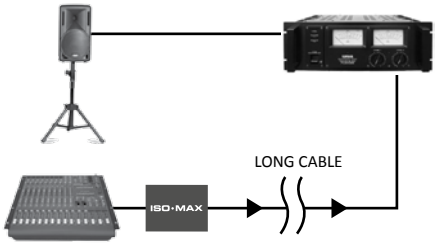
- **Drives balanced and unbalanced signals long distances**
- **Eliminates hum and buzz caused by ground loops**
- **Withstands input levels in excess of +26 dB at 30 Hz**
- **Plug & play easy to use, no power required**

The Iso•Max PO-XX is a single channel output isolator for both balanced and unbalanced signals where extreme signal handling is required to drive long cable runs.

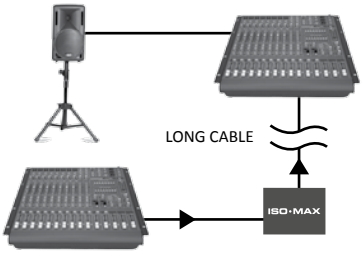
The design begins with an extruded aluminum case that comes standard with gold plated XLR connectors. Plug and play easy to use, this passive interface does not require any power to work. Inside is a high performance nickel core Jensen transformer that is able to withstand signals in excess of +26 dBu without discernible distortion while delivering a linear response to 150 kHz. This provides galvanic isolation between the input and output to eliminate hum and buzz caused by ground loops, rejecting noise by as much as 110 dB.

Made to accommodate both balanced or unbalanced signals, simply connect the PO-XX at the output of the source and the PO-XX will quietly go to work as it delivers exceptional audio performance. This makes the Iso•Max PO-XX a superb choice for the most demanding studio, broadcast and performance venue installations.

Applications



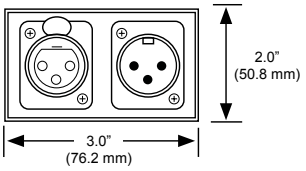
PO-XX with a PA system
Eliminating noise in a PA system can sometimes take hours of trouble shooting, particularly when the mixer, amplifiers and speakers are distanced apart. Simply connect the PO-XX at the output of your mixer to instantly eliminate ground loop hum and buzz.



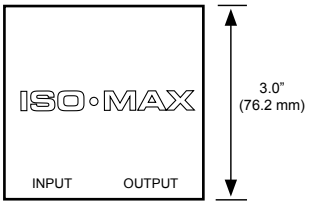
Isolating one console from the other
Whether you are isolating two consoles in a festival or experiencing noise when connecting to a drive rack, the PO-XX is easily inserted into the signal chain to break the ground loop and eliminate noise as it easily handles huge bass transients without distortion.

Dimensions

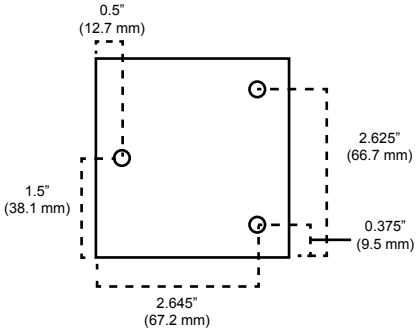
(FRONT)



(TOP)



(BOTTOM)



All Holes = 0.156" (3.96 mm) DIA x 0.3" (7.62 mm) 82 Degree C.S.

Connector options

The PO-XX comes standard with XLR input and output. It is also available special order with the following connector configurations for use with both balanced and unbalanced systems.

PO - XX

XLR-F IN, XLR-M OUT

PO - XB

XLR-F IN, BNC OUT

PO - RR

RCA IN / OUT

PO - RX

RCA IN, XLR-M OUT

PO - XR

XLR-F IN, RCA OUT

PO - PP

1/4" TRS IN / OUT

PO - XP

XLR-F IN, 1/4" TRS OUT

jensen transformers — ISO•MAX® — PO-XX

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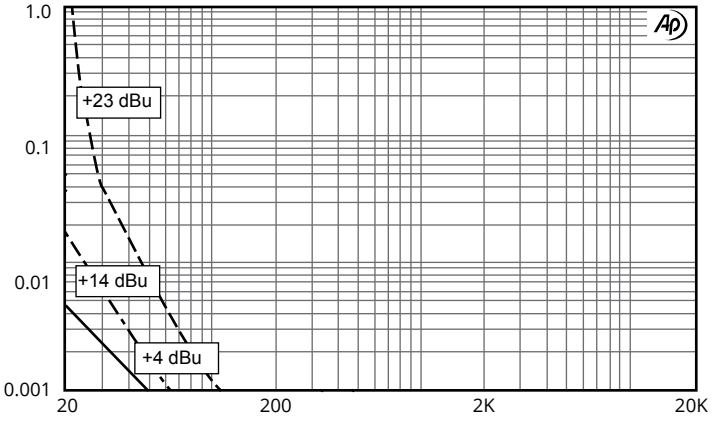
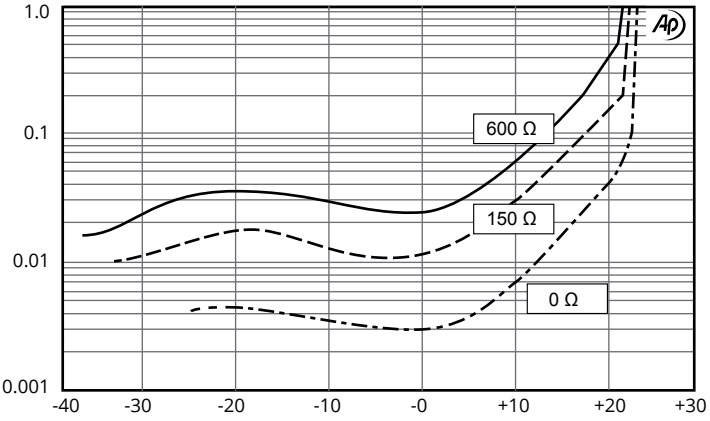
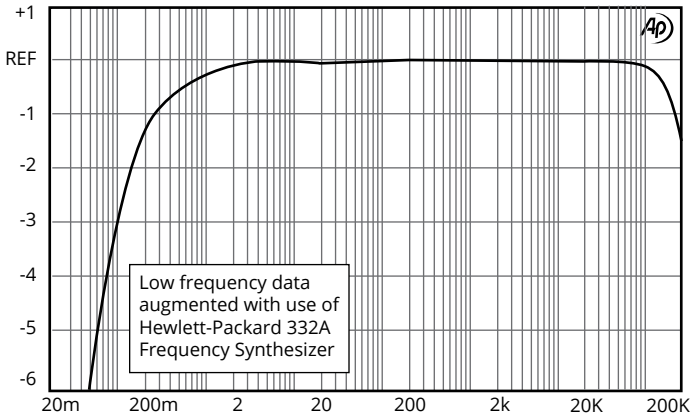
THD at FIXED INPUT LEVELS, Rs=0 — THD+N (%) vs FREQUENCY (Hz)



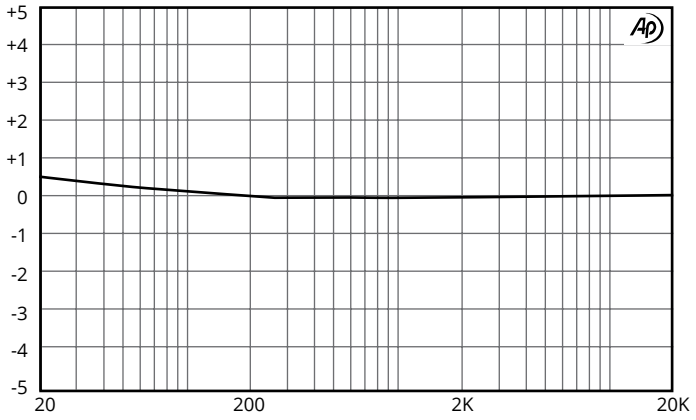
20 Hz DISTORTION AT FIXED Rs — THD+N (%) vs OUTPUT LEVEL (dBU)



REFERENCE LEVEL RESPONSE — AMPLITUDE (dB) vs FREQUENCY (Hz)



DEVIATION FROM LINEAR PHASE — DEVIATION (Deg) vs FREQUENCY (Hz)

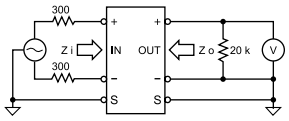


PARAMETER	CONDITIONS	MINIMUM	TYPICAL	MAXIMUM
Input impedance, Zi	20 Hz to 20 kHz, 0 dBu, test circuit 3, R_L = 600 Ω	670 Ω	680 Ω	690 Ω
	1 kHz, 0 dBu, test circuit 3, R_L = 20 kΩ			
Voltage gain	1 kHz, 0 dBu, test circuit 1, Rs = 0 Ω	-1.2 dB	-1.1 dB	-0.9 dB
Magnitude response, ref 1 kHz	20 Hz, 0 dBu, test circuit 1, Rs = 0 Ω	-0.1 dB	-0.02 dB	±0.0 dB
	20 kHz, 0 dBu, test circuit 1, Rs = 0 Ω	-0.1 dB	±0.0 dB	+0.1 dB
Deviation from linear phase (DLP)	20 Hz to 20 kHz, 0 dBu, test circuit 1, Rs = 0 Ω		+0.3 / -0°	±1.0°
Distortion (THD)	1 kHz, +4 dBu, test circuit 1, Rs = 0 Ω		<0.001%	
	20 Hz, +4 dBu, test circuit 1, Rs = 0 Ω		0.004%	0.03%
Maximum output level	20 Hz, 1% THD, test circuit 1, Rs = 0 Ω	+20 dBu	+22 dBu	
Common - mode rejection ratio (CMRR)	60 Hz, test circuit 2		110 dB	
	3 kHz, test circuit 2	75 dB	85 dB	
Recommended source impedance	output impedance of device connected the ISO-MAX input	0	600 Ω	2 kΩ
Recommended load impedance	input impedance of device connected the ISO-MAX output	150 Ω	20 kΩ	∞
Output impedance, Zo	20 Hz to 20 kHz, 0dBu, test circuit 4		80 Ω	
Optimal cable length (balanced)	input		50 m (150')	200 m (600')
	output		100 m (300')	300 m (1000')
Optimal cable length (unbalanced)	input		8 m (25')	15 m (50')
	output		No limitations	
Temperature range	operation or storage	0°C		70°C
Input to Output Voltage Difference*	any input to any output shield or any shield to case, 60 Hz			24 V RMS 34 V peak

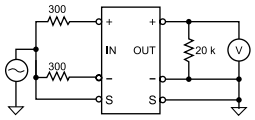
All levels are output unless noted

* IMPORTANT NOTE: THIS PRODUCT IS NOT INTENDED FOR USE IN CIRCUMSTANCES WHERE THE DC OR PEAK AC VOLTAGE BETWEEN INPUT AND OUTPUT CONNECTIONS EXCEEDS 34 VOLTS OR WHERE ITS FAILURE COULD CAUSE INJURY OR DEATH.

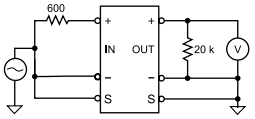
Test Circuit 1:



Test Circuit 2:



Test Circuit 3:



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