

### **Linea Focus**

## DLI-330 (fixed installation)

Active line source system with beam steering for fixed installations,  $24 \times 4$ ", 133 dB SPL max.,  $133 \times 3377 \times 128$  mm















# Linea Focus DLI-330 (fixed installation)

The DLI-330 is an electronically controllable line source speaker from the award-winning Focus series. The elegant high-performance speakers are the very first choice for professional voice and music applications. Thanks to the Fohhn Beam Steering Technology, they can be integrated almost invisibly and offer the best results in complex acoustic environments.

#### Main features

- 24 × 4" high performance driver (frequency response: 60 Hz 17 kHz)
- Built-in 24-channel digital amplifier, 24 DSP channels
- SPL max.: 133 dB
- Input interface optionally Analogue, AES/EBU + Fohhn Airea, Dante
   Ultimo with Fohhn Net Control (DUC) or Dante Brooklyn with Fibre (DBF)
- Convenient real-time control of vertical dispersion with Fohhn Audio Soft
- Vertical beam width: 0° to 90°, sound inclination angle: -40° to +40° (adjusted in 0.1° increments)
- Acoustic centre displaceable over entire line length
- Fohhn Two Beam Technology (two independent dispersion beams)
- Fohhn Side Lobe Free Technology (suppression of side lobes)
- Available in RAL, NCS, Pantone and with Fohhn Texture Design
- Integration in evacuation systems according to DIN EN 60849 / VDE 0828
- Integration in media controls such as Crestron, AMX, Extron and more
- New: Flexible assembly thanks to the T-slot on the rear

Available with the following color options

Black

White

Equipped with the following Fohhn technologies

Fohhn Texture Division
Technology

Fohhn DSP Special colors optional

Weatherproof execution

Auto Power Save

Possible input interfaces for this product

Analog AES/EBU AIREA Dante

### **AES/EBU and Airea**

-	ectro	 4	£ 1	

simulation data

Liecifodcousiic fediales	
acoustic design	electronically steerable line source speaker
components	24 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	133 dB
operational mode	active, 24 × DSP amplifiers, Class–D
frequency range	60 Hz – 17 kHz
nominal dispersion, horizontal	110°
vertical beam width, digitally controlled	0° to +90° in 0.1° increments
vertical inclination angle, digitally controlled	-40° to +40° in 0.1°increments
acoustic centre	both beams moveable between 0 – 100 % (from speaker bottom to top)
Physical features	
enclosure	aluminum
front design	front grille in housing colour
protection grille	steel grille, ball impact resistant, powder-coated
weight	approx. 24.3 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 3377 × 128 mm
Optional features	
optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
CAAD simulation data	

EASE, Fohhn Designer

#### **Electronic features**

amplifier type	Pure Path Digital PWM
DSP channels, Fohhn Audio DSP	24
amplifier power	24 × 100 W
frequency response	20 Hz – 20 kHz
gain	25 dB
input sensitivity	0 dBFS
signal/noise ratio	>105 dB/A
tilt sensor	yes
password protection	yes
auto power save	adjustable from 1 s to 12 h, or permanently active
protective circuit	soft start, overtemperature, short circuit, overload
power supply	100 V – 240 V AC 50/60 Hz, power supply with Power Factor Correction (PFC)
power consumption	Standby 5 W, max. 600 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	210 W, 717 BTU/h, 180 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 4 kg
Controller	
digital signal processors	2
independent limiters	6
FIR filter	yes
gain	-80 dB - +12 dB
volume	-80 dB - +12 dB
EQ input	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
EQ output	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
selective 3-band limiting	bass / mid / high
limiter / compressor	2 × Input, 1 × Output
noise gate	2 × Input, 1 × Output
X-over	Linkwitz–Riley 4th order, 24 dB/octave, high pass 10 Hz $-$ 20 kHz, low pass 10 Hz $-$ 20 kHz, 2 $\times$ input, 1 $\times$ output in each case
delay input	0.01 – 350 ms or 3.4 mm – 120 m each
delay output	0.01 – 650 ms or 3.4 mm – 220 m each
user presets	100
simulation beam	Fohhn Net, Fohhn Audio Soft

1.80 ms

80-bit double precision

yes

system latency

filter technology

band-specific time constants

audio inputs	1 × AES/EBU or 1 × AIREA powered
audio input channels DSP	2
audio link	no
redundancy	no

### Remote control and remote monitoring

remote control	Fohhn Net over RS-485, Fohhn Audio Soft
remote monitoring	temperature, protect, power supply, Fohhn Net, Fohhn Audio Soft, tilt Sensor, pilot tone, AES/EBU signals
pilot tone monitoring	activatable, detectable in Master (on both inputs)
fault message contact	1 × relay 2 × alternate, 3-pin Phoenix
switching contact	Load preset, Standby On/Off

#### Connections

switching contact	1 × Phoenix 3-pin
fault message contact	1 × Phoenix 3-pin, 1 × Phoenix 3-pin link
mains connection (internal)	1 × WAGO 2-pin, grounding screwed
signal link	1 × Phoenix 3-pin, Fohhn-Net
signal inputs	1 × Phoenix 3-pin AES/EBU, 1 × Phoenix 3-pin Fohhn-Net, or 1 × RJ-45 AIREA

### Display

power on / off (standby)	green = on, red = standby, red flashing = fault, blue = sign
network control	receive/send remote control LED

power rating (peak); maximum SPL: peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range, with speaker preset

frequency range: -10 dB under anechoic halfspace-conditions with speaker preset

weight: net weight without optional equipment heat dissipation: pink noise, 6 dB crest, 1/4 Pmax

nominal dispersion: -6 dB compared to the main dispersion axis, averaged 1 – 4 kHz

### analog

 lectroaco	LICTIC	TACT	ııraç

Electroacoustic teatures	
acoustic design	electronically steerable line source speaker
components	24 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	133 dB
operational mode	active, 24 × DSP amplifiers, Class–D
frequency range	60 Hz – 17 kHz
nominal dispersion, horizontal	110°
vertical beam width, digitally controlled	0° to +90° in 0.1° increments
vertical inclination angle, digitally controlled	-40° to +40° in 0.1°increments
acoustic centre	both beams moveable between 0 – 100 % (from speaker bottom to top)
Physical features	
enclosure	aluminum
front design	front grille in housing colour
protection grille	steel grille, ball impact resistant, powder-coated
weight	approx. 24.3 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 3377 × 128 mm
Optional features	
optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
CAAD simulation data	
simulation data	EASE, Fohhn Designer
-	

Electronic features	
amplifier type	Pure Path Digital PWM
DSP channels, Fohhn Audio DSP	24
amplifier power	24 × 100 W
frequency response	20 Hz – 20 kHz
gain	25 dB
input sensitivity	1.4 V
signal/noise ratio	>105 dB/A
tilt sensor	yes
password protection	yes
auto power save	adjustable from 1 s to 12 h, or permanently active
protective circuit	soft start, overtemperature, short circuit, overload
power supply	100 V – 240 V AC 50/60 Hz, power supply with Power Factor Correction (PFC)
power consumption	Standby 5 W, max. 600 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	210 W, 717 BTU/h, 180 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 4 kg
Controller	
digital signal processors	2
independent limiters	6
FIR filter	yes
gain	-80 dB - +12 dB
volume	-80 dB - +12 dB
EQ input	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
EQ output	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
selective 3-band limiting	bass / mid / high
limiter / compressor	2 × Input, 1 × Output
noise gate	2 × Input, 1 × Output
X-over	Linkwitz–Riley 4th order, 24 dB/octave, high pass 10 Hz $-$ 20 kHz, low pass 10 Hz $-$ 20 kHz, 2 $\times$ input, 1 $\times$ output in each case
delay input	0.01 – 350 ms or 3.4 mm – 120 m each
delay output	0.01 – 650 ms or 3.4 mm – 220 m each
user presets	100
simulation beam	Fohhn Net, Fohhn Audio Soft

2.40 ms

80-bit double precision

24 bit / 96 kHz

yes

system latency

filter technology

ΑD

band-specific time constants

audio inputs	2 × analogue, transformer balanced
audio input channels DSP	2
audio link	2
redundancy	no

### Remote control and remote monitoring

remote control	Fohhn Net over RS–485, Fohhn Audio Soft
remote monitoring	temperature, protect, signals, power supply, Fohhn Net, Fohhn Audio Soft, tilt Sensor, pilot tone
pilot tone monitoring	activatable, detectable in Master (on both inputs)
fault message contact	1 × relay 2 × alternate, 3-pin Phoenix
switching contact	Load preset, Standby On/Off

#### Connections

switching contact	1× Phoenix 3-pin
fault message contact	1× Phoenix 3-pin, 1× Phoenix 3-pin link
mains connection (internal)	1× WAGO 2-pin, grounding screwed
signal link	2 × Phoenix 3-pin, 1 × Phoenix 3-pin Fohhn-Net
signal inputs	2 × Phoenix 3-pin analogue, 1 × Phoenix 3-pin Fohhn-Net

### Display

power on / off (standby)	green = on, red = standby, red flashing = fault, blue = sign
network control	receive/send remote control LED

power rating (peak); maximum SPL: peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range, with speaker preset

frequency range: -10 dB under anechoic halfspace-conditions with speaker preset

weight: net weight without optional equipment heat dissipation: pink noise, 6 dB crest, 1/4 Pmax

nominal dispersion: -6 dB compared to the main dispersion axis, averaged 1 – 4 kHz  $\,$ 

### Dante (DBF)

lectroac	a radia	fact	
eciroac	ousiic	rear	ures.

Electroacoustic features	
acoustic design	electronically steerable line source speaker
components	24 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	133 dB
operational mode	active, 24 × DSP amplifiers, Class–D
frequency range	60 Hz – 17 kHz
nominal dispersion, horizontal	110°
vertical beam width, digitally controlled	0° to +90° in 0.1° increments
vertical inclination angle, digitally controlled	-40° to +40° in 0.1°increments
acoustic centre	both beams moveable between 0 – 100 % (from speaker bottom to top)
Physical features	
enclosure	aluminum
front design	front grille in housing colour
protection grille	steel grille, ball impact resistant, powder-coated
weight	approx. 24.3 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 3377 × 128 mm
Optional features	
optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
CAAD simulation data	
simulation data	EASE, Fohhn Designer

simulation beam

system latency

filter technology

band-specific time constants

Electronic features	
amplifier type	Pure Path Digital PWM
support for AES67	Yes
DSP channels, Fohhn Audio DSP	24
amplifier power	24 × 100 W
frequency response	20 Hz – 20 kHz
gain	25 dB
input sensitivity	0 dBFS
signal/noise ratio	>105 dB/A
tilt sensor	yes
password protection	yes
auto power save	adjustable from 1 s to 12 h, or permanently active
protective circuit	soft start, overtemperature, short circuit, overload
power supply	100 V – 240 V AC 50/60 Hz, power supply with Power Factor Correction (PFC)
power consumption	Standby 5 W, max. 600 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	210 W, 717 BTU/h, 180 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 4 kg
Controller	
digital signal processors	2
independent limiters	6
FIR filter	yes
gain	-80 dB - +12 dB
volume	-80 dB - +12 dB
EQ input	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
EQ output	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
selective 3-band limiting	bass / mid / high
limiter / compressor	2 × Input, 1 × Output
noise gate	2 × Input, 1 × Output
X-over	Linkwitz–Riley 4th order, 24 dB/octave, high pass 10 Hz $-$ 20 kHz, low pass 10 Hz $-$ 20 kHz, 2 $\times$ input, 1 $\times$ output in each case
delay input	0.01 – 350 ms or 3.4 mm – 120 m each
delay output	0.01 – 650 ms or 3.4 mm – 220 m each
user presets	100
ainsulation keeps	Table Nat Table Audia Cafe

Fohhn Net, Fohhn Audio Soft

80-bit double precision

Dante + 1.80 ms

yes

audio inputs	Dante Primary and Dante Secondary
audio input channels DSP	2
audio link	nein
redundancy	yes

### Remote control and remote monitoring

remote control	Fohhn Audio Soft, Fohhn Net over IP
remote monitoring	temperature, protect, signals, power supply, Fohhn Net, Fohhn Audio Soft, tilt Sensor, pilot tone
pilot tone monitoring	activatable, detectable in Master (on both inputs)
integration in media control	UDP and TCP text protocol

#### Connections

mains connection (internal)	1 × WAGO 2-pin, grounding screwed
signal inputs	2 × RJ-45 1000BASE-T Ethernet and 2 × SFP port (Dante + Fohhn-Net)

power rating (peak); maximum SPL: peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range, with speaker preset

frequency range: -10 dB under anechoic halfspace-conditions with speaker preset

weight: net weight without optional equipment heat dissipation: pink noise, 6 dB crest, 1/4 Pmax

nominal dispersion: -6 dB compared to the main dispersion axis, averaged 1 – 4 kHz

## Dante (DUC)

FI	ectro	acou	ıstic	feat	ures

Electroacoustic teatures	
acoustic design	electronically steerable line source speaker
components	24 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	133 dB
operational mode	active, 24 × DSP amplifiers, Class–D
frequency range	60 Hz – 17 kHz
nominal dispersion, horizontal	110°
vertical beam width, digitally controlled	0° to +90° in 0.1° increments
vertical inclination angle, digitally controlled	-40° to +40° in 0.1°increments
acoustic centre	both beams moveable between 0 – 100 % (from speaker bottom to top)
Physical features	
enclosure	aluminum
front design	front grille in housing colour
protection grille	steel grille, ball impact resistant, powder-coated
weight	approx. 24,3 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 3377 × 128 mm
Optional features	
optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
CAAD simulation data	
simulation data	EASE, Fohhn Designer
-	

Electronic features	
amplifier type	Pure Path Digital PWM
support for AES67	yes
DSP channels, Fohhn Audio DSP	24
amplifier power	24 × 100 W
frequency response	20 Hz – 20 kHz
gain	25 dB
input sensitivity	0 dBFS
signal/noise ratio	>105 dB/A
tilt sensor	yes
password protection	yes
auto power save	adjustable from 1 s to 12 h, or permanently active
protective circuit	soft start, overtemperature, short circuit, overload
power supply	100 V – 240 V AC 50/60 Hz, power supply with Power Factor Correction (PFC)
power consumption	Standby 5 W, max. 600 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	210 W, 717 BTU/h, 180 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 4 kg
Controller	
digital signal processors	2
independent limiters	6
FIR filter	yes
gain	-80 dB - +12 dB
volume	-80 dB - +12 dB
EQ input	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
EQ output	10 fully parametric filters, Gain +/-12 dB, Frequency 10 Hz – 20 kHz, Q 0.1 – 100
selective 3-band limiting	bass / mid / high
limiter / compressor	2 × Input, 1 × Output
noise gate	2 × Input, 1 × Output
X-over	Linkwitz–Riley 4th order, 24 dB/octave, high pass 10 Hz – 20 kHz, low pass 10 Hz – 20 kHz, $2 \times 10^{-20}$
delay input	0.01 – 350 ms or 3.4 mm – 120 m each
delay output	0.01 – 650 ms or 3.4 mm – 220 m each
user presets	100

Fohhn Net, Fohhn Audio Soft

80-bit double precision

Dante + 1.8 ms

yes

simulation beam

system latency

filter technology

band-specific time constants

audio inputs	Dante
audio input channels DSP	2
audio link	no
redundancy	no

### Remote control and remote monitoring

Fohhn Audio Soft, Fohhn Net over IP
temperature, protect, signals, power supply, Fohhn Net, Fohhn Audio Soft, tilt Sensor, pilot tone
activatable, detectable in Master (on both inputs)
UDP text protocol

#### Connections

mains connection (internal)	1× WAGO 2-pin, grounding screwed
signal inputs	1 × RJ–45 100BASE–TX Ethernet (Dante + Fohhn–Net)

power rating (peak); maximum SPL: peak, 20 ms with bandpass filtered pink noise signal according to IEC 60268-2 at one octave above the lower limit of the frequency range, with speaker preset

frequency range: -10 dB under anechoic halfspace-conditions with speaker preset

weight: net weight without optional equipment heat dissipation: pink noise, 6 dB crest, 1/4 Pmax

nominal dispersion: -6 dB compared to the main dispersion axis, averaged 1 – 4 kHz

Fohhn Audio AG Großer Forst 15 72622 Nuertingen Germany Phone +49 7022 93323-0 Fax +49 7022 93324-0 www.fohhn.com info@fohhn.com

