

# Linea Focus

## DLI-230 (fixed installation)

Active line source system with beam steering for fixed installations, 16  
× 4", 130 dB SPL max., 133 × 2308 × 128 mm



Analog

AES/EBU

AIREA<sup>®</sup>

Dante<sup>®</sup>

# Linea Focus DLI-230 (fixed installation)

The DLI-230 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

- 16 × 4" high performance driver (frequency response: 60 Hz – 17 kHz)
- Built-in 16-channel digital power amplifier, 16 DSP channels
- SPL max.: 130 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 Design



Fohhn Beam Steering Technology



Fohhn Source Division Waveguide



Fohhn Airea



Fohhn DSP inside



Special colors optional



Weatherproof execution



Auto Power Save

Possible input interfaces for this product

Analog

AES/EBU

AIREA<sup>®</sup>

Dante<sup>™</sup>

# Technical data

## AES/EBU and Airea

### Electroacoustic features

acoustic design	electronically steerable line source speaker
components	16 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	130 dB
operational mode	active, 16 × 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. 15.1 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 2308 × 128 mm

### Optional features

optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
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### CAAD simulation data

simulation data	EASE, Fohhn Designer
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**Electronic features**

amplifier type	Pure Path Digital PWM
DSP channels, Fohhn Audio DSP	16
amplifier power	16 × 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. 400 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	140 W, 478 BTU/h, 120 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 3 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 × input, 1 × 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
system latency	1.80 ms
band-specific time constants	yes
filter technology	80-bit double precision

### Inputs and outputs

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

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
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

### 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

# Technical data

## analog

### Electroacoustic features

acoustic design	electronically steerable line source speaker
components	16 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	130 dB
operational mode	active, 16 × 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. 15.1 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 2308 × 128 mm

### Optional features

optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
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### CAAD simulation data

simulation data	EASE, Fohhn Designer
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**Electronic features**

amplifier type	Pure Path Digital PWM
DSP channels, Fohhn Audio DSP	16
amplifier power	16 × 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. 400 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	140 W, 478 BTU/h, 120 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 3 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 × input, 1 × 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
system latency	2.40 ms
band-specific time constants	yes
filter technology	80-bit double precision
AD	24 bit / 96 kHz



### Inputs and outputs

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

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
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

### 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

# Technical data

## Dante (DBF)

### Electroacoustic features

acoustic design	electronically steerable line source speaker
components	16 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	130 dB
operational mode	active, 16 × 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. 15.1 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 2308 × 128 mm

### Optional features

optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
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### CAAD simulation data

simulation data	EASE, Fohhn Designer
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## Electronic features

amplifier type	Pure Path Digital PWM
support for AES67	Yes
DSP channels, Fohhn Audio DSP	16
amplifier power	16 × 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. 400 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	140 W, 478 BTU/h, 120 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 3 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 × input, 1 × 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
system latency	Dante + 1.80 ms
band-specific time constants	yes
filter technology	80-bit double precision

### Inputs and outputs

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

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

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

# Technical data

## Dante (DUC)

### Electroacoustic features

acoustic design	electronically steerable line source speaker
components	16 × 4" impregnated (fully neodymium)
maximum SPL (1 m)	130 dB
operational mode	active, 16 × 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. 15.1 kg
standard colours	black or white powder coated
mounting points	continuous T-slot at rear
dimensions (W × H × D)	133 × 2308 × 128 mm

### Optional features

optional colours	RAL Classic / NCS / Pantone on request, Fohhn Texture Design
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### CAAD simulation data

simulation data	EASE, Fohhn Designer
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## Electronic features

amplifier type	Pure Path Digital PWM
support for AES67	yes
DSP channels, Fohhn Audio DSP	16
amplifier power	16 × 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. 400 W
power factor (PFC)	> 90 %
low power	Green Power Standby Mode
heat dissipation	140 W, 478 BTU/h, 120 kcal/h (Pink Noise, 6 dB crest, 1/4 Pmax)
temperature range	0 – 40 °C
cooling	temperature-controlled fan
weight (electronics)	approx. 3 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 × input, 1 × 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
band-specific time constants	yes
filter technology	80-bit double precision

### Inputs and outputs

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

### 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 text protocol

### Connections

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

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](http://www.fohhn.com)**  
**[info@fohhn.com](mailto:info@fohhn.com)**

