

D10-2 Dante

D Series MultiLoop™ Driver (10 Amps x 2)



Configuration:

D10-2 Dante D
Series MultiLoop™
Driver (10 Amps x 2)

Product Overview:

The D10-2 Dante (D Series) represents the global benchmark for digital audio hearing loop systems. The compact, elegant and sturdy units not only feature digital signal processing and networking functionality, but are also the most versatile and powerful solution available.

The D10-2 Dante digital amplifier is a 10 Amp dual output class 'D' driver; meaning a 60%+ increase in energy efficiency over existing solutions. Both drivers feature capacitive touch front panels with intuitive menus, built in test signals, and are fully networkable with a Wi-Fi accessible standard browser based control panel for remote set-up, monitoring and email alerts. Dante versions also feature a Dante specific RJ45 input for plug and play Dante network audio.

The D10-2 Dante features 10 Amps per loop output plus ample voltage headroom, making it the most flexible solution on the market, suitable for a huge range of applications. The added power of the D10-2 Dante provides a solution for installations in environments containing very high levels of metal, previously not possible without the use of combiners.

In another first for high-power Class D Induction Loop drivers, installation can be performed with total confidence, as unique multi-stage filtering ensures compatibility with both other system equipment and global EMC regulations. The D10-2 Dante also boasts Dual Slope Metal Loss Control that caters to a wide range of metal loss frequency characteristics.

Highlights:

- Dante input for network audio
- Drives 2 output channels at $10A_{RMS}$ each, featuring accurate and stable 90° phase shift
- Networkable with remote browser interface
- Digital display & intuitive 'touch' menu system
- 3 modes; Main, Status & Quick
- Highly energy efficient Class-D amplifier with low heat dissipation
- Up to $2 \times 1,450 \text{ m}^2$ (15,607 sq. ft.) Perimeter Loops area coverage
- Up to $3,300 \text{ m}^2$ (35,520 sq. ft.) MultiLoop™ Low Loss area coverage
- Compact 1U rack mount unit with internal transformer for simple rack installation
- Optimized for speech frequencies with unmatched intelligibility & capable of high quality musical reproduction
- AGC & Dual Slope MLC
- Active status monitoring & remote fault reporting via email
- Data compliant with: IEC 62489-1 Standard

Includes:

One (1) D10-2 Dante D Series MultiLoop™ Driver (10 Amps x 2)
One (1) 1U 19" Rack Mount (brackets included)
One (1) Handbook and installation instructions
One (1) T-Coil Loop System present Sign (deaf logo)
Two (2) Neutrik NL4 output connectors for each output
One (1) Region specific IEC power cable

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One (1) Status and DC Connectors

Architectural Specification:

The D Series MultiLoop™ Driver shall continuously deliver two (2) x 10 A_(RMS) per channel when excited with a 1 kHz sine wave as measured with the IEC 62489-1 induction loop amplifier performance standard. Only drivers that have been tested and compliant to this IEC 62489-1 specification shall be accepted, no other substitutions will be allowed.

In a Perimeter Loop application it shall cover up to two (2) x 1,450 sq. m (15,607 sq. ft.) each. In a MultiLoop Low Loss application it shall cover up to 3,300 sq. m (35,520 sq. ft.). The MultiLoop driver shall internally incorporate two (2) loop drivers and one (1) accurate and stable 90° audio phase shifter. The MultiLoop driver with the proper design shall have reduced spill to no more than 1.5 m (4.9 ft.). The MultiLoop driver shall have a frequency response of at least 80Hz to 6.5kHz +/- 3 dB with THD+N less than 0.2%.The unit shall incorporate (AGC) Audio Gain Control optimized for speech with a compression dynamic range of >36 dB audio processing. The unit shall incorporate Dual Slope Metal Loss Correction to rectify frequency loss caused by adjacent metal structures. The unit shall incorporate built in test signals and shall be fully networkable with a Wi-Fi accessible standard browser based control panel for remote set-up, monitoring and email alerts. The unit shall include a specific network RJ45 input connection enabling Dante plug and play network audio. The unit shall occupy one rack space and rack mount brackets shall be included. The MultiLoop driver is tested to and compliant with: IEC 62489-1 induction loop amplifier performance standard.

The D10-2 Dante D Series MultiLoop™ Driver (10 Amps x 2) is specified.

Qualification and Certification of the Contractor

Only AV Integration Firms/Dealers that have completed and are currently certified under specific manufacturer training to test, install, and commission along with providing a Certificate of Conformity in accordance with the IEC 60118-4 standard shall be eligible to bid upon this portion of this bid.

Standard Compliance

This product is designed to form part of a system that can meet all of the requirements of the international loop performance standard IEC60118-4, and the relevant parts of BS7594. To fully meet requirements of these standards, correct design, installation, commissioning and maintenance are required.

All specification data has been compiled in accordance with IEC62489-1, the international standard for audio frequency induction loop equipment. Specification data should only be compared with data compliant to this standard.

This product is CE and RCM marked to all relevant safety and EMC standards, and is NRTL (ETL) approved for sale in North America.

Product Specification:D Series MultiLoop™ Driver (10 Amps x 2)	
Audio	
Frequency Response	80 Hz to 6.3 kHz ±3 dB
Distortion	THD+N <0.2 %, 1 kHz sine wave at full current
AGC	Optimized for Speech, Dynamic Range >36 dB
Metal Loss Correction	Corrects system frequency response due to metal structures in a building. Gain constant at 1kHz, adjustable gain slope from 0 to 4dB per octave in 0.25dB increments. Custom 2 slope MLC allows different slopes and transition frequency to be set via the menu. This does not compensate for signal loss from metal structures which can be significant.
Phase Shift	User selectable at 0° or 90° between outputs
Indicators	
AGC LEDs	Indicates the status of the AGC in dB
Current LEDs	Indicates the peak current delivered to the loop

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Clip LED	Indicates that the signal on the loop output is clipping and requires adjustment to either the driver settings, loop or potentially the selection of a more powerful driver
Error LED	Check the 'Status' menu for loop, amplifier and temperature errors and access fault codes
Interconnections	
Dante™	RJ45 Ethernet input
Input 1	XLN balanced inputs, switchable between microphone and line via panel menu: Microphone specification; 200 - 600 Ω, sensitivity -64 dBu. Selectable 12 V phantom power on microphone only. Line sensitivity; -39 dBu, Input Impedance = 17kΩ
Input 2	Panel menu: Microphone specification; 200 - 600 Ω, sensitivity -64 dBu. Selectable 12 V phantom power on microphone only. Line sensitivity; -39 dBu, Input Impedance = 17kΩ
Loop Connector/s	Channels A / B, Neutrik NL4 Speakon, Drive Current: 14 A (RMS), 19.8 A (Peak) up to 60 seconds continuous 1 kHz sine wave, peak >19.8 A per channel, Cont. pink noise 6.6 (RMS), short term peaks > 20 A per channel, Drive Voltage: 33.9 V (RMS), 45 V (Peak) at maximum output current per channel
Slave I/O	6.35mm jack socket for linking more than one amplifier. Inserting plug disables other inputs
DC Output	Resettable, fuse protected 12V 0.1A. Operation can be configured via menu.
Loop Monitor Connection	Provides access to monitor actual loop current via a 3.5mm stereo headphone connector on front panel Channel A on left, channel B on right
Loop	
Perimeter Loop - Coverage	No Metal (0dB): 1:1 Aspect Ratio 2 x 1,000 m² (10,763 sq. ft.), 3:1 Aspect Ratio 2 x 1,1452 m² (15,607 sq. ft.)
Loss Control Phased Array - Coverage	No Metal (0dB): 3,300 m² (35,520 sq. ft.) Moderate Metal Loss (-5dB): 925 m² (9,956 sq. ft.) High Metal Loss (-10dB): 400 m² (4,305 sq. ft.) Severe Metal Loss (-15dB): N/A
Low Spill System	No Metal (0dB): 1,225 m² (13,185 sq. ft.) Moderate Metal Loss (-5dB): 700 m² (7,535 sq. ft.) High Metal Loss (-10dB): 340 m² (3,659 sq. ft.) Severe Metal Loss (-15dB): N/A
Power	
Power	120 VAC, 80 W, 45 - 65 Hz, Power Switch on front panel
Physical	
Dimensions (H x W x D)	44 x 430 x 290 mm (1.74 x 16.93 x 11.42 in.)
Mounting	Freestanding or 1U 19" rack mount (brackets included)
Weight	5.5 kg (12.2 lbs.)
Shipping Weight	6.89 kg (15.2 lbs.)
Environmental	
Temperature - Operation	0 C (32 F) to 35 C (95 F)
Cooling	Variable speed fan cooled. Front inlet, rear exhaust
Relative Humidity	20 to 90% Relative Humidity
Standards	IP20 Rated
Compliance	
Marks and Approvals	CE and ETL Listed