Next Generation



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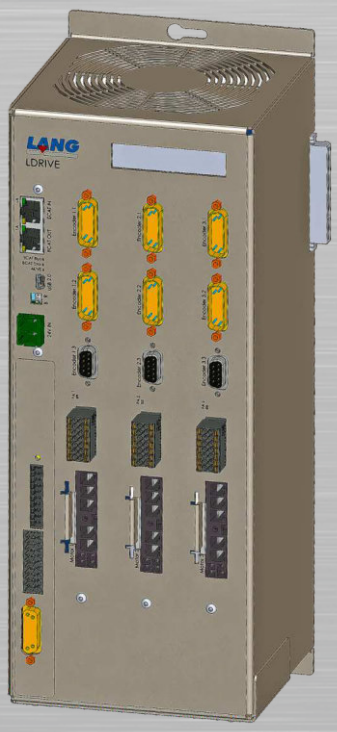
Drives with EtherCAT® connection

LDRIVE



- ✓ Innovative
- ✓ Compact
- ✓ Modular
- ✓ Powerful
- ✓ Safe

Usable as a standalone unit or in a network!

Precision is our world...

Drive amplifier with EtherCAT® connection

modular – safe – compact = Industrial Ethernet + Safety Integrated

LDRIVE

LANG is expanding its product portfolio with drive amplifiers of the LDRIVE series. The first release features the high-performance 320-V model, to be followed later by 48-V units. Thanks to close collaboration with our customers and over 40 years of experience in drive technology, the new drives can be optimally deployed in virtually all current and future applications.

All drives of this family communicate via the standardized industrial fieldbus EtherCAT®. This enables the connection of up to 65,535 devices via a single standard Ethernet interface of one PC. The drives' powerful CPU, combined with the performance of EtherCAT®, enables interface cycle times of up to 125 µs. Together with a current controller cycle time of 31.25 µs, high-precision and highly dynamic motion sequences can be achieved.

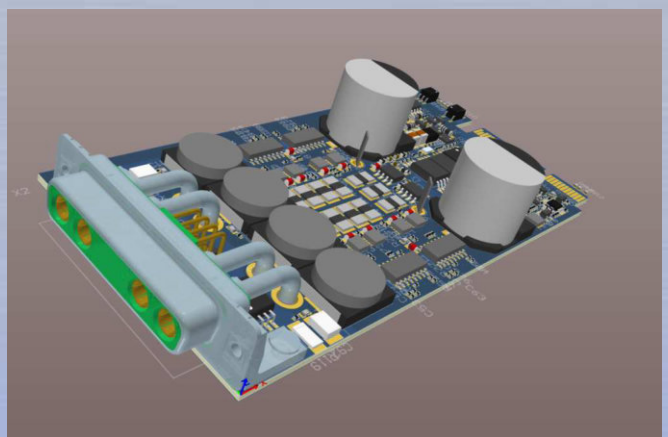
The clever design of the drives makes it possible to configure each axis to meet your specific requirements. This allows high-performance, encoder-based main axes to be combined with simple—and, if necessary, encoder-less—auxiliary axes in a single unit. The axial configuration ensures that only the hardware that is actually needed is installed.

With up to three encoder inputs per axis, even complex mechanical designs can be implemented using the drive controllers. Thanks to the highest position resolution on the user interface, there are no limits to the application's accuracy.
All drives support the safety function STO (Safe Torque Off) in its standard configuration.

Each axis has its own I/O plane with high-speed digital and analog inputs and outputs. Thanks to intelligent I/O management, the digital and analog I/Os can be used across devices. Intelligent functions can be assigned to the I/Os, such as the output of a stop signal.

LDRIVE Daten

Number of axes	1 to 3 / unit		
Logic voltage	24 V		
DC Bus voltage	320 V nominal / 400 V max.		
Rated Power / Axis	2,5 kW		
Peak Power / Axis	7,5 kW		
Motor types	Servo, Stepper, BLDC und DC Motors		
Encoder Systems / Axis	3		
Encoder 1	**Incrementeal**	**Absolute**	
	Sine-Cosine / MR up to 700 kHz 32768 x interpolation	EnDat / BiSS / SSI up to 10 Mhz	
Encoder 2	**Incremental**	**Absolute**	
	Sine-Cosine / MR up to 700 kHz 32768 x interpolation	EnDat / BiSS / SSI up to 10 Mhz	
Encoder 3	**Incremental**	**Digital Inputs**	
	RS422 / TTL up to4 Mhz 4 x interpolation	RS422 / TTL up to 3 Inputs	
Position Resolution	Linear 1pm / rotary 0,000001° = 0,0036"		
IOs / Axis	4 digital inputs 3 inputs out of 3 Encoders (configurable) 4 digital outputs 1 analog input 1 analog output		
Conntroller Cycle Time	Position 125 µs	Speed 62,5 µs	Current 31,25 µs
Interface	EtherCAT®		
Integrated Safety	STO (other option available upon request)		
Dimensions (H x W x D)	370 x 102 x 137 mm (2 axis unit) 370 x 138 x 137 mm (3 axis unit)		



48V/60 V – Power amplifier for LDRIVE compac

Applications areas for the 320V-AVs:

- ✓ Industrial automation
- ✓ Turning, milling, and machine tools
- ✓ Robotics
- ✓ Semiconductor production equipment
- ✓ Printing and packaging machines
- ✓ Handling technology
- ✓ Pick-and-place machines
- ✓ Manufacturing industry
- ✓ Testing and measurement technology
- ✓ Optical machines centering, grinding, and polishing lenses
- ✓ Laser machines for scanning, marking, cutting, and machining

Subject to technical alteration. 11/2026

EtherCAT®

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