

L-force

Human machine interface

From text display to touchscreen



Keeping a watchful eye on machines



Lenze

L-force | Your future is our drive

Demands are increasing all the time. In future, key challenges will lie in the areas of cost efficiency, time-saving and quality improvements. Faster project planning and commissioning, improved performance and increased flexibility in production are expected. New ideas are therefore needed for the machines of the future.

Lenze has risen to this challenge and, with L-force, we can now not only offer you an innovative family of drive and automation products, but also a new, comprehensive portfolio of solutions.

Driven by innovation – New ideas for new possibilities

Always on the lookout: Our idea of innovation is working on even better solutions for our customers, every day.

Driven by flexibility – High degree of scalability for individual solutions

Scalability is an important aspect of the **L-force** philosophy. Performance, scope of functions, software, service provisions and aftersales care – Lenze will provide you with exactly the combination you require.

Driven by usability – Simple solutions, even for complex applications

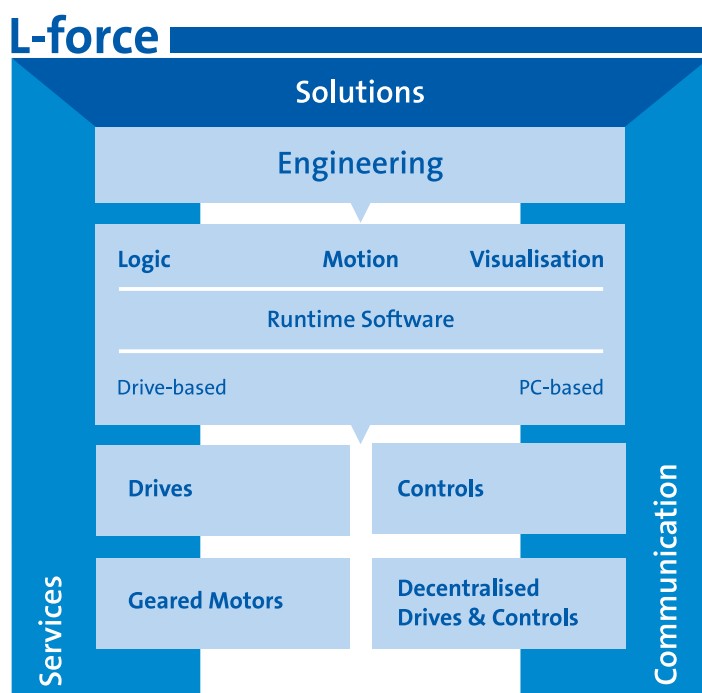
We always focus on the user. Therefore, when we developed **L-force**, we made sure that people with plenty of practical experience were involved, right from the start.

Driven by compatibility – Universal products and solutions

Don't waste any more time searching for suitable components and the right interfaces. With **L-force**, everything is compatible.

Keeping a watchful eye on machines

Human machine interfaces from the L-force controllers range enable you to keep a watchful eye on your processes.



www.L-force.de

HMI | Simple display capability

The processes performed at modern production plants are getting faster and more complex with every innovation. This is motivated by the desire to develop production methods capable of operating ever more efficiently. In the midst of this complexity it is important for us not to forget the people actually operating the machines. It must be possible to operate systems reliably and above all easily, so that we do not lose sight of the processes being performed.

This is where interfaces are required between people and machines in the form of display systems, which can range from a simple text display to high-resolution touchscreens. In this respect, we can offer a comprehensive, graded range of products to suit every requirement. The human machine interfaces are an integral part of the Lenze system infrastructure and can be programmed in a standard integrated development environment and configured for the application you require.



Text displays

Text displays are a cost-effective and compact solution for basic applications. Their low mounting depth means that they are ideal wherever space is at a premium.

The 2 to 4-line displays have background lighting and come with a system bus as standard, along with various system and function keys.



Graphic displays

Graphic displays combine cost-effectiveness, functionality and maximum user-friendliness in a modern design. This compact unit with its integrated system bus is capable of handling recipes and displaying data graphically.

Production trends can be seen immediately, thereby making it possible for machine processes to be optimised.



Touchscreens

Our wide range of touchscreens caters for all needs, from a cost-effective means of getting started in terms of graphic display formats or our 10.4" TFT screen for complex visualisations. All units are equipped with a system bus, as well as a user interface offering the ultimate in flexibility.



Hand-held

For direct local operation and monitoring. The ability to access the console directly whilst visualising machine and workpiece status speeds up commissioning. Operation is made easy thanks to the lightweight structure of the console and the touchscreen design.



HMI Designer

One software program for all units: The HMI Designer provides a comprehensive integrated development environment for all the operating units and display units described above. This user-friendly programming environment, which features project managers, project editors and font editors, integrates perfectly with the Lenze drive controllers, thereby facilitating system set-up and subsequent operation.



Advantages | Reliable, accessible, direct

Direct access to codes

This harmonised range of HMIs paves the way for you to access the parameters of any connected devices directly via the system bus. The displays make it possible to establish direct contact with the codes in Lenze drive controllers, without having to go via a control. In the case of simple applications, this may mean that you can do without a control altogether. In addition, Lenze's HMI Designer software makes programming easy.

One software program for all units

The HMI Designer software was designed to be capable of configuring all Lenze HMIs easily and without errors. This tool can be used to export and import any text for simple translation into other languages and has a universally applicable structure. Variables or recipes, once created, can be transferred to other units in our HMI range.



*Grinding machine with
H520 touchscreen*



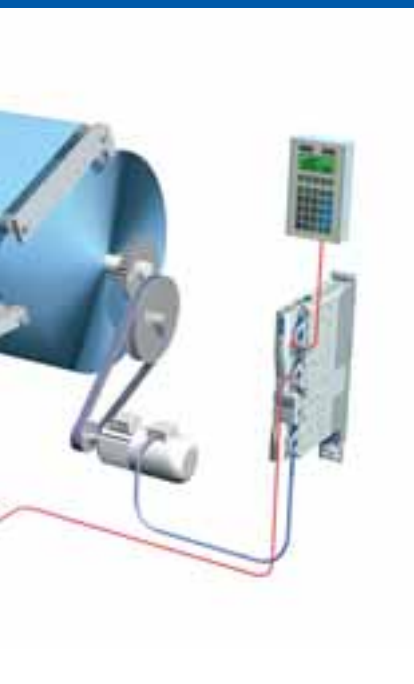
Cutting costs

This graduated product range will provide you with an excellent return on your investment. You get the right unit for every application – and only pay for what you really need.

Maximum reliability

Lenze is your one-stop-shop for all your automation needs. In addition to operating units and suitable software, we can also offer you a total concept for your automation requirements. Every solution is tailored to your application, whether in

the area of frequency or servo technology, with preprogrammed technology functions or in conjunction with Lenze drive controllers. Why waste time with interfaces from different systems if a faster option is available? The reduced amount of time spent configuring these units provides an excellent return on your investment – and we can provide equal value for money across our entire organisation where service is concerned.



*Paper winder with
H315 text display*



*Filling plant with H410
graphic display*

Text displays



	H310	H312	H315
Display			
Type	Text, LED backlit LC display	Text, LED backlit LC display	Text, LED backlit LC display
Lines x characters	2 x 20	4 x 20	4 x 20
Character size [mm]	3.2 x 5.5	2.95 x 4.75	2.95 x 4.75
User memory			
User program	48 kB	256 kB	256 kB
Dimensions			
External (W x H x D) [mm]	166 x 86 x 45	166 x 86 x 45	148 x 188 x 45.5
Installation cutout (W x H) [mm]	157 x 77	157 x 77	123 x 175
Technical data			
Enclosure	IP 65 for front panel	IP 65 for front panel	IP 65 for front panel
Order designation	EPM-H310	EPM-H312	EPM-H315

Touchscreens



	H502	H505	H507
Display			
Type	Graphic, LCD 4 grey scale STN 4"	Graphic, LCD 4 blue scale STN 5.6"	Graphic, LCD 16 colours STN 5.6"
Touchscreen	Matrix 20 x 8	Matrix 20 x 16	Matrix 20 x 16
Resolution (pixels)	240 x 128	320 x 240	320 x 240
User memory			
User program	640 kB	640 kB	960 kB
Dimensions			
External (W x H x D) [mm]	166 x 100 x 43.6	210 x 158 x 60	210 x 158 x 60
Installation cutout (W x H) [mm]	157 x 91	198 x 148	198 x 148
Technical data			
Enclosure	IP 65 for front panel	IP 65 for front panel	IP 65 for front panel
Order designation	EPM-H502	EPM-H505	EPM-H507

Graphic displays



H410	
Display	
Type	Graphic, LED backlit LC display
Lines x characters	8 x 40/4 x 20/2 x 10
Resolution	240 x 64
User memory	
User program	512 kB
Dimensions	
External (W x H x D) [mm]	252 x 196 x 65
Installation cutout (W x H) [mm]	232 x 178
Technical data	
Enclosure	IP 65 for front panel
Order designation	EPM-H410






H510	H515	H520	H521
Graphic, LCD monochrome STN 5.5"	Graphic, LCD 256 colours STN 7.5"	Graphic, LCD 256 colours TFT 10.4"	Graphic, LCD 256 colours TFT 10.4"
Matrix 20 x 8	Matrix 40 x 30	Matrix 40 x 30	Matrix 40 x 30
240 x 128	640 x 480	640 x 480	640 x 480
512 kB	960 kB	640 kB	960 kB
210 x 158 x 60	245.9 x 188.6 x 43.6	346 x 260 x 79	336.3 x 256.0 x 50.0
198 x 148	233 x 176	314 x 240	314 x 240
IP 65 for front panel	IP 65 for front panel	IP 65 for front panel	IP 65 for front panel
EPM-H510	EPM-H515	EPM-H520	EPM-H521




Hand-held



	H605
Display	
Type	Graphic, LCD 4 blue scale STN 5.6"
Touchscreen	Matrix 20 x 16
Resolution (pixels)	320 x 240
User memory	
User program	640 kB
Dimensions	
(W x H x D) [mm]	286 x 284 x 97
Technical data	
Enclosure	IP 65 for front panel
Order designation	EPM-H605

Accessories

					
	H704	H706	H710	H110	H111
Type	Protective foil 4"	Protective foil 6"	Protective foil 10"	Download cable	Adapter MSP-ASP 8
Units	H502	H505 H507 H510	H520 H521	all	H310 H315 H502 H507
Order designation	EPZ-H704	EPZ-H706	EPZ-H710	EPZ-H110	EPZ-H111

			
	H210	H220	H221
Type	4 MB Project memory	4 MB Graphics memory	8 MB Project memory
Units	H410	H520	H521
Order designation	EPZ-H210	EPZ-H220	EPZ-221

It's good to know | why we are there for you



"Our customers come first. Customer satisfaction is what motivates us. By thinking in terms of how we can add value for our customers we can increase productivity through reliability."



"The world is our marketplace. We develop and manufacture internationally. Wherever you are in the world, we are nearby."



"We will provide you with exactly what you need – perfectly co-ordinated products and solutions with the right functions for your machines and installations. That is what we mean by 'quality'."



"Take advantage of our wealth of expertise. For more than 50 years we have been gathering experience in various fields and implementing it consistently and rigorously in our products, motion functions and preprepared solutions for industry."



"We identify with your targets and strive towards a long-term partnership which benefits both sides. Our competent support and consultation process means that we can provide you with tailor-made solutions. We are there for you and can offer assistance in all of the key processes."

You can rely on our service. Expert advice is available 24 hours a day, 365 days a year, in more than 30 countries via our international helpline: 008000 24 Hours (008000 2446877).

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