

# L-force

## *HMI EL 100 series*

Visualisation using Windows® CE



Information at a glance



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**Lenze**  
**DIGITEC**

# 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

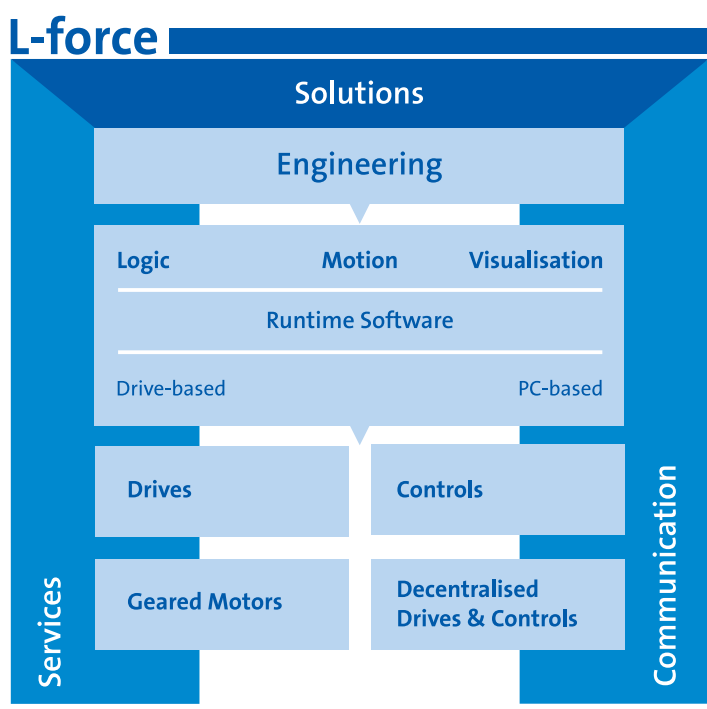
We always focus on the user. Therefore, when we developed L-force, we made sure that people with plenty of practical experience were involved, right from the start.

### 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.

### HMI with Windows® CE

Thanks to its co-ordinated hardware and software, this new visualisation system for L-force controllers is the ideal solution for you to use in creating your displays.



[www.L-force.de](http://www.L-force.de)

# HMI | precise visualisation – easy and safe

Modern production line processes are becoming quicker and more complex with every new innovation. The ultimate aim is to develop production methods that work increasingly more efficiently. But every time a machine is made more complex, it is important to keep the person operating it in mind.

The more complicated the individual processes become, the more important it is to have a human/machine interface that is safe and easy to use, as operators need to keep track of their plant and workpieces at all times.

The HMI EL 100 series, therefore, was developed for applications requiring the higher level of flexibility and functionality offered by the Windows® CE environment. The interface units work with the standard Windows® CE operating system and a visualisation system specifically adapted to the hardware - the VisiWinNET® Smart.

## HMIs with Windows® CE

With display sizes ranging from 5.7" to 10.4" and integrated VisiWinNET® Smart visualisation, these devices are cost-effective and powerful complete systems for operating and monitoring.



# The hardware | flexible and powerful

## Hardware and operator in perfect harmony

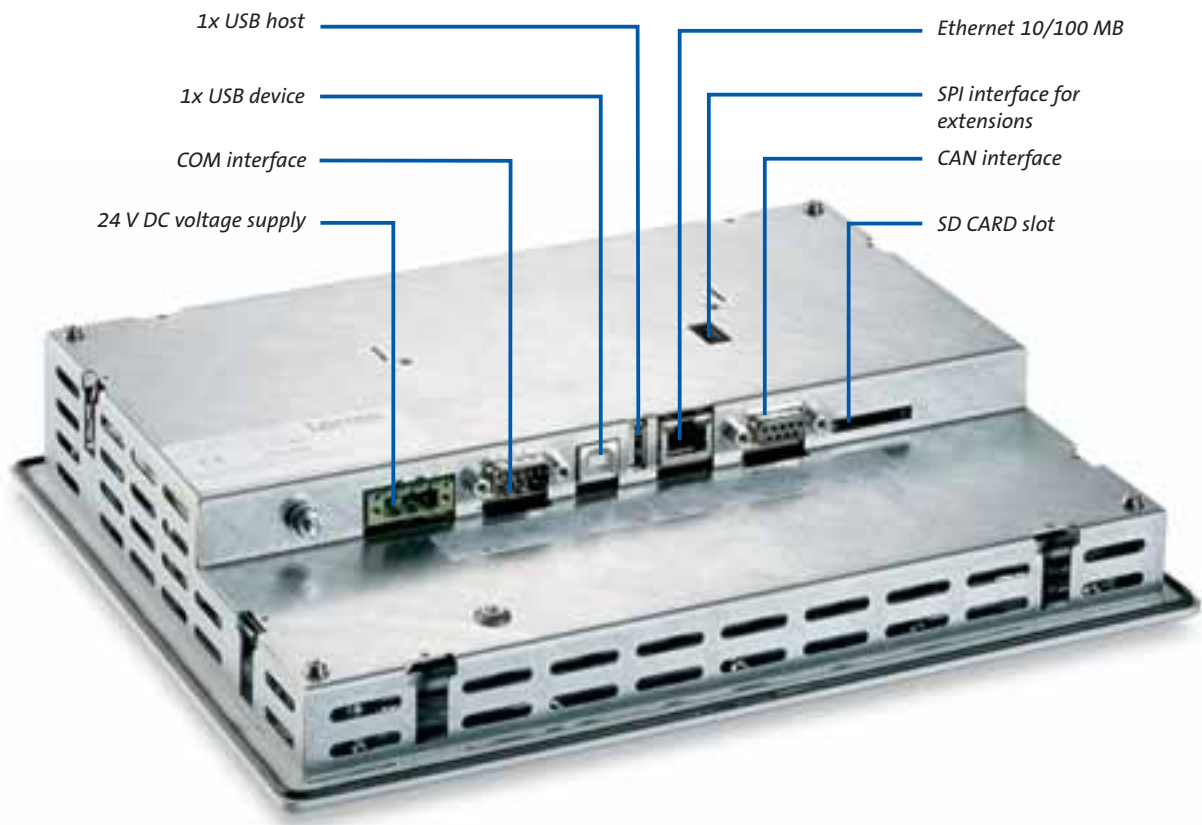
HMI's with Windows® CE are compact touch panels with a flexible graphical user interface. They run on the modern Windows® CE operating system, thus providing functions similar to those offered by a PC. Designed to meet a wide variety of requirements, these panels, with display sizes ranging from 5.7" to 10.4", are cost-effective and powerful complete systems for operating and monitoring.

## Communication on all channels

All the HMI's are fitted with tried-and-tested IPC standard interfaces. These interfaces offer a number of possibilities

for communication with master controls and, of course, for integration into Lenze's spectrum of systems.

As well as the standard Lenze CAN bus, other interfaces, such as MPI and RS232, are also available for the new panels. Furthermore, Ethernet, USB A and USB B interfaces facilitate industry-standard communication with higher-level PCs and allow for the connection of additional disk drives, printers, keyboards or other communication media.



# The software

tailor-made graphical user interfaces

## VisiWinNET® Smart

The VisiWinNET® Smart system was developed for machine-oriented visualisation tasks and specifically designed to meet the requirements of the HMI EL 100 series. Clear and simple user interfaces mean that applications can be created very quickly and easily.

### Intuitive and functional visualisation

A project wizard assists the user when it comes to selecting target hardware and provides a suitable basic configuration, which can then be adapted at will, for each project.

The program supports the reading in of system variables, such as the time of day or display brightness, which can be used in the application. In addition, there is a language selection function that allows you to use and combine all supported languages from around the world at will.

Furthermore, the system is characterised by its user-friendly configuration process, optimised alarm management system and simple user management option.

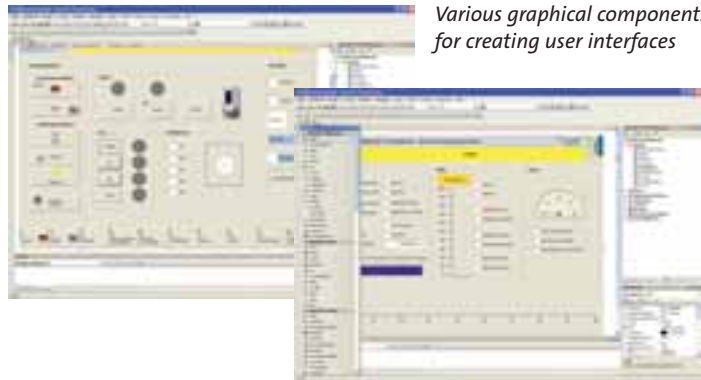
### Would you like a bit more?

This software was designed to perform simple to medium-complexity visualisation tasks. However, if your demands are greater, the system can be extended at any time by means of VisiWinNET® Professional. This version of the software enables you to create more complex functions, modules and program organisation units, in conjunction with Visual Studio .NET, and to use them as new elements within VisiWinNET® Smart.

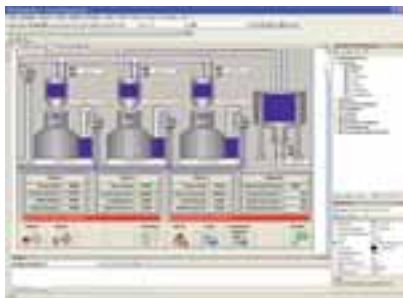


*Project wizard - all your basic settings at the click of a mouse*

*User-friendly configuration options for creating applications*



*Various graphical components for creating user interfaces*



*Complex plant visualisation with VisiWinNET® Professional*

# Teamwork | a powerful combination

## Co-working

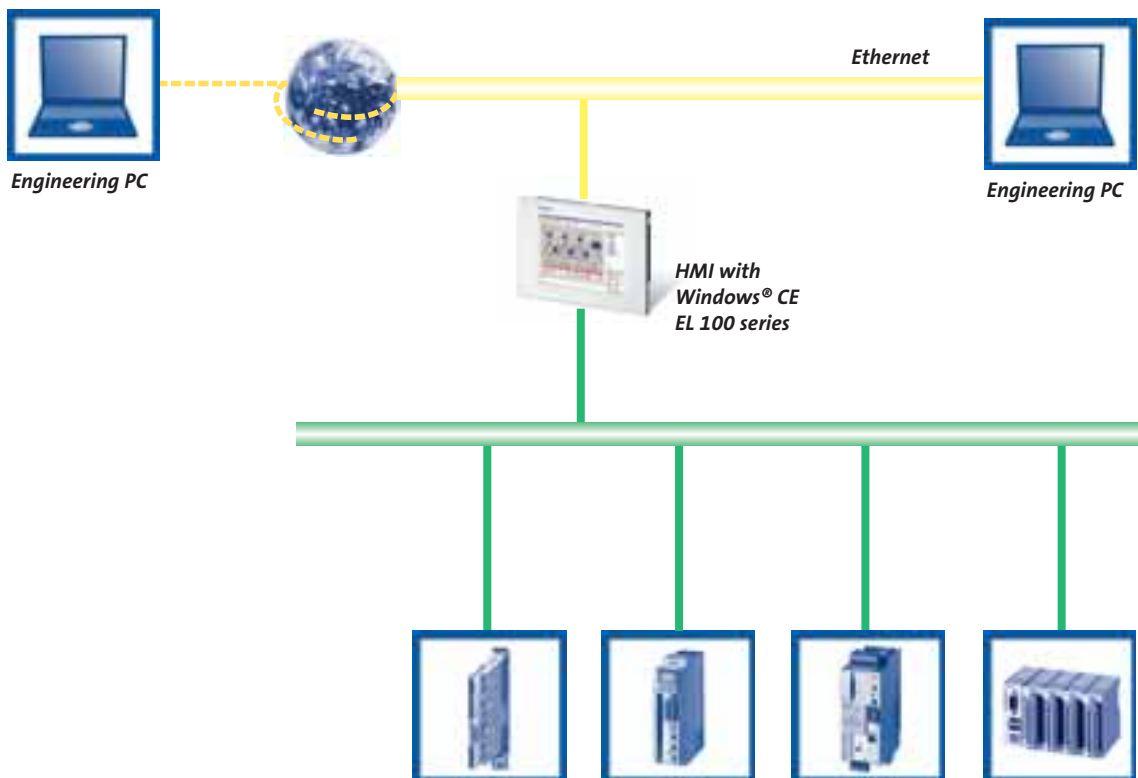
Modern machine technology is characterised by low standstill times and a high degree of flexibility. This is where the HMI EL 100 series, providing an intelligent interface between the operator and plant, comes into its own. A graphical machine display, multilingual operator and help texts and simple methods of editing machine parameters combine to give the operator an intelligent tool. During standard operation, trend diagrams and an optimised alarm management system ensure that the machine runs without errors.

## Networking

Developers have access to the powerful VisiWinNET® Smart software in order to implement all the functions of an operating and monitoring user interface on the HMI EL 100 series hardware. The application created on the engineering PC (drive codes can be imported directly) is then easily transferred to the HMI with Windows CE via Ethernet.

Of course, this connection can also be established via a modem for later servicing. A user-friendly remote maintenance function is available on all EL 100 series devices.

## HMI with Windows® CE – Never lose sight of your processes



# Overview | the series at a glance

With Lenze operating systems you always have the right solution for every application case and even the most complex processes are kept well under control.



Type	EL 105 mono	EL 105 color	EL 106	EL 108	EL 110
<b>Display Type</b>	Graphical STN                      TFT 16 shades of grey    64k colours 5.7 in                      5.7 in		Graphical TFT 64k colours	Graphical TFT 64k colours	Graphical TFT 64k colours
Touchscreen Resolution [pixels]	Resistive 320x240		6.4 in Resistive 640x480	8 in Resistive 640x480	10.4 in Resistive 640x480
<b>CPU</b>	XScale PXA 270		XScale PXA 270	XScale PXA 270	XScale PXA 270
<b>User memory</b>					
Flash	32 MB		32 MB	32 MB	32 MB
RAM	64 MB		64 MB	64 MB	64 MB
<b>Interfaces</b>					
Serial port	RS232		RS232	RS232	RS232
USB	Host (A)/Device (B)		Host (A)/Device (B)	Host (A)/Device (B)	Host (A)/Device (B)
Ethernet	10/100 Mbit/RJ45		10/100 Mbit/RJ45	10/100 Mbit/RJ45	10/100 Mbit/RJ45
Fieldbus	CAN system bus (ISO 11898)/MPI		CAN system bus (ISO 11898)/MPI	CAN system bus (ISO 11898)/MPI	CAN system bus (ISO 11898)/MPI
<b>Clock</b>					
Real-time clock with date	Yes, with back-up battery Off time 7 years at 25°C		Yes, with back-up battery Off time 7 years at 25°C	Yes, with back-up battery Off time 7 years at 25°C	Yes, with back-up battery Off time 7 years at 25°C
<b>DC supply voltage</b>					
U <sub>DC</sub> [V]	24 V DC ± 25%		24 V DC ± 25%	24 V DC ± 25%	24 V DC ± 25%
<b>Power consumption</b>					
at 24 V DC [W]	6.0	7.2	7.2	12	12
<b>Operating system</b>	Windows® CE 5.0		Windows® CE 5.0	Windows® CE 5.0	Windows® CE 5.0
<b>Visualisation functions</b>					
Online languages	Any		Any	Any	Any
Password	Any		Any	Any	Any
Dynamic text	Yes		Yes	Yes	Yes
Bitmaps	Import option during configuration		Import option during configuration	Import option during configuration	Import option during configuration
Graphical icons	Static/Dynamic		Static/Dynamic	Static/Dynamic	Static/Dynamic
Alarms	Yes		Yes	Yes	Yes
Info messages	Yes		Yes	Yes	Yes
Alarm buffer	Yes		Yes	Yes	Yes
Recipes	Yes		Yes	Yes	Yes
Trend display	Line graph		Line graph	Line graph	Line graph

# 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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