





### The right functionality

The CIMREX series of operator terminals offers the desirable combination of powerful performance and user-friendliness, paired with just the right functionality.



### Continuous development

CIMREX is developed entirely by Beijer Electronics, ensuring high quality and compatibility throughout the series.

From concept to hardware and software specification, development and testing, our engineers work closely with customers to continuously develop and improve the CIMREX series. As a result, operators and system developers alike are impressed with our easy-to-use operator terminals and programming software.



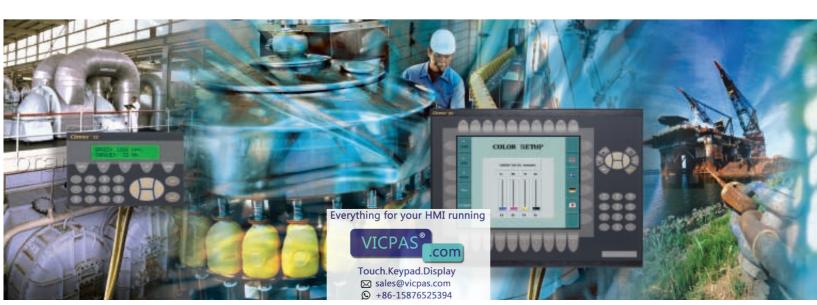
### Suits all needs

From compact text-based terminals to advanced graphic operator terminals with touch displays, the CIMREX series is suitable for a wide range of applications, and designed to easily withstand the toughest industrial environments.

With thirteen models, the CIMREX series is one of the most complete series of operator terminals available today.

### Easy programming

All CIMREX series operator terminals, including peripherals such as expansion cards and the extended function keyboard C-Key16, are programmed in Windows with the popular CIMREX PROG.



### Proven performance

The CIMREX brand represents more than twenty years of cutting edge operator terminal technology that satisfies customers all over the world.

#### Proven in all industries

Advanced functionality and quality of design make the CIMREX operator terminals ideal for any industry. The operator terminals are at home in virtually any environment, from a tough industrial one, with high levels of oils and salts to a sterile room, and are found in such industries as:

- Automotive
- Pharmaceutical
- Dairy, food & beverage
- Off-shore
- Packaging
- Power
- Semiconductors
- Telecom

### Industrial design for tough demands

Operator terminals from Beijer Electronics are subject to approval by several regulatory agencies before release to the market. Construction, end-testing and burn-in are all done at Beijer Electronics. All products are designed to meet and exceed the requirements of CE, UL and other environmental tests. In addition, Beijer Electronics demands strict adherence to quality standards and environmental policy from all suppliers and subcontractors.

All products undergo testing before they leave the manufacturer. Each part delivery to Beijer Electronics undergoes random sampling to ensure that all products meet the tough requirements.

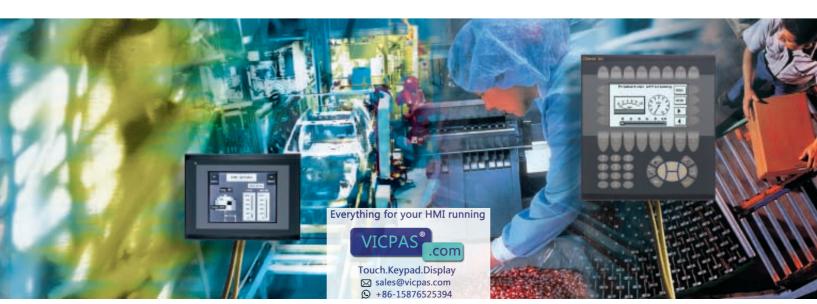
Beijer Electronics' quality and environmental system complies with all internal requirements as well as those of the SS-EN ISO 9001:2000 and SS-EN ISO 14001:1996 international standards.

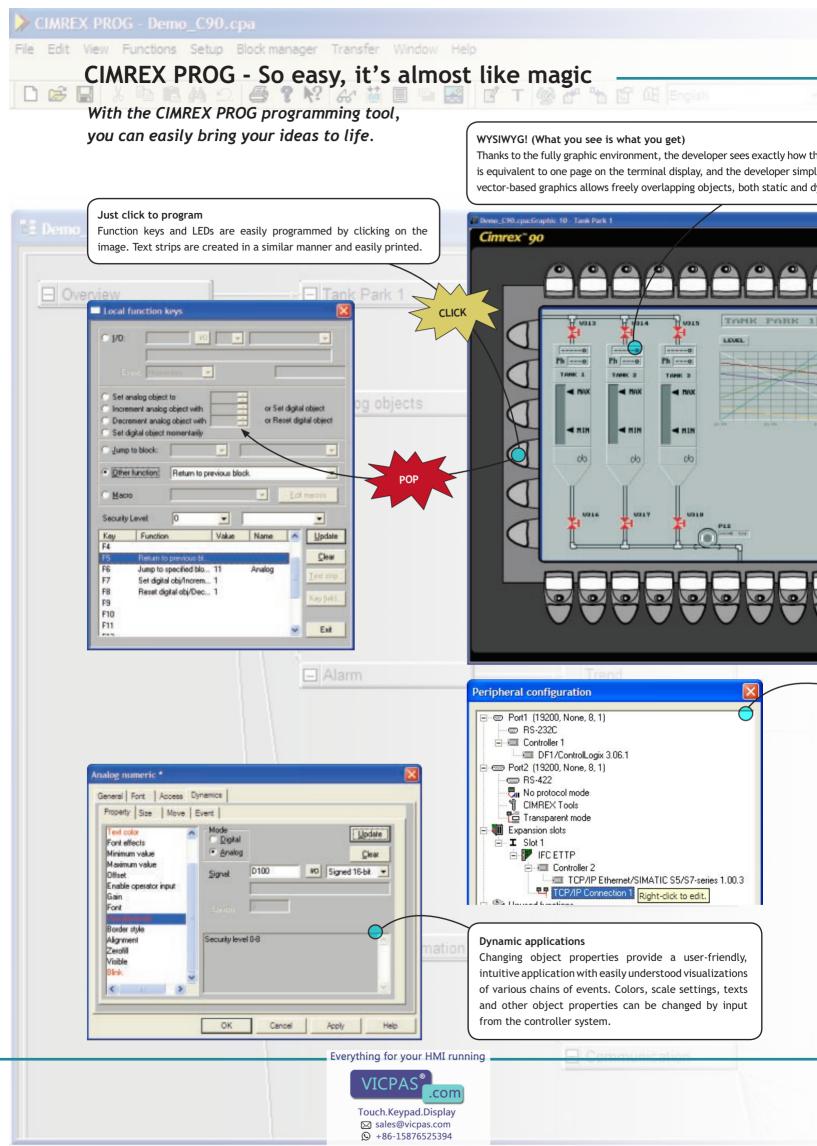












ow the application will look to the operator. One block simply picks and places objects from the toolbox. The and dynamic, providing high flexibility in applications.





Convenient toolbox With the toolbox, it is easy to select and create objects. Just click to select, and click to place and configure in the block. Furthermore, the toolbox provides control of background colors and other useful functions such as grid points, zooming and placement of objects.

### Easy configuration of communication

The peripheral menu gives a simple overview of all communication settings. Simply drag and drop to the chosen communication port.



### All in one application

A popular feature of the CIMREX operator terminals is the multilanguage feature that allows an application to have up to ten different languages, either for the operators to switch between, or to reduce development times for applications that are sold in several countries.

In CIMREX PROG, a wizard helps you set up multilanguage in four easy steps. All that remains, is to translate the application texts. This is easily accomplished by exporting all texts to a text editor, Excel or other programs, and then importing them back into place after translation.

Everything for your HMI running

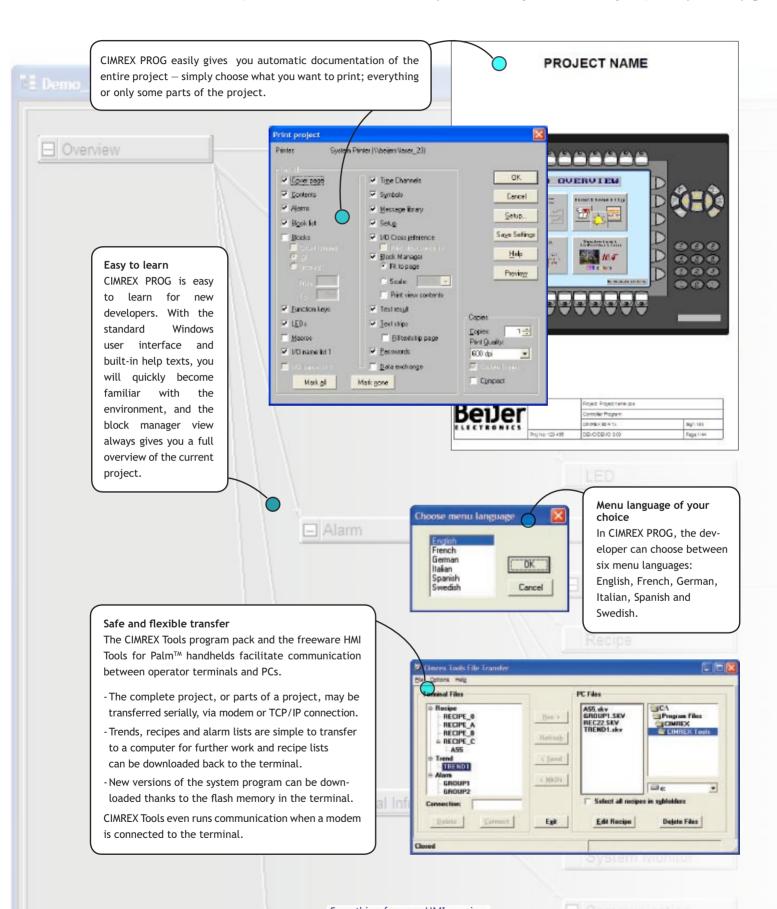


Cimrex

# CIMREX PROG - One software tool for all your needs

Edit View Functions Setup Blockmanager Transfer Window Help

With CIMREX PROG, you only have to learn one programming tool. CIMREX PROG is used for program the CIMREX series, as well as the extended function keyboard C-Key16, and for configuring extended function is configuring to the configuring extended function is configuring to the co



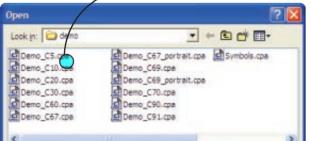


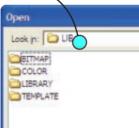
# ogramming all operator terminals gexpansion cards.

#### Easy to get started - and you save time

Demo-projects for each terminal provide a pool of ideas and solutions to pick from for your own projects. It is easy to file projects, copy blocks, texts and graphics between different projects and to reuse earlier solutions. You can easily convert projects to match new operator terminals.

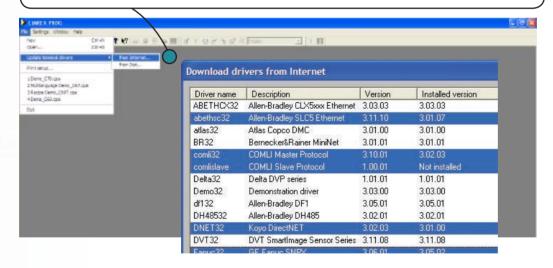
A comprehensive symbol directory of static and dynamic graphics is available from the toolbox, and you can even use your own bitmap symbols in the project. By utilizing background blocks, it is simple to create several blocks with similar content in a project.





#### Easy update of drivers

Drivers are available free of charge, downloadable from the Internet directly into the CIMREX PROG programming tool. Drivers for controller systems, servos and inverters from most manufacturers are available.



### Customize your applications

By creating your own templates you can both save time and create a familiar environment for your end-users.

- Templates can consist of all kinds of objects and functionality, such as bitmap symbols, static texts, addressed dynamic objects and more.
- Templates can be saved and reused in other projects, contributing to a consistent environment in your applications.

### Reuse name and alarm lists

An I/O name list is easily imported from a text file. Likewise, a name list can be imported to an alarm list. These are both features that will save you time.





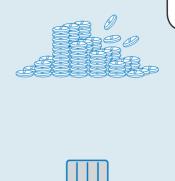
# The right funtionality

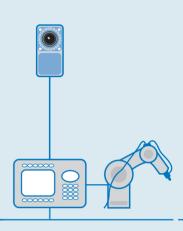
# CIMREX operator terminals ensure state-of-the-art production and quality control

### Production and quality control

The pills are formed at high pressure and brand names are imprinted. The size and shape of the pills are checked visually by a digital camera, and in the event of irregularities, a message is sent to a robot, which will remove the faulty pill. The product type passing through the quality control is selected in the operator terminal.







### The Factory

CIMREX operator terminals offer an impressive range of features that will provide you with the functionality that is right for your needs.

In this application example, we present highlights of the CIMREX operator terminals, illustrating how the many features are typically used for controlling and monitoring a production line\*.

### Dual drivers with data exchange

Beijer Electronics offers a unique driver concept that enables you to mix signals from different automation equipment, and to exchange data between them in a network. With this unique driver concept, and the continuous development of drivers and driver technology, Beijer Electronics offers you the most flexibility in connectivity and communication.

### Mix signals

Dual drivers functionality enables you to mix input from different controller systems in your application. Two different brands or two different types of automation equipment can be connected to the operator terminal at the same time, either serially or via a network.

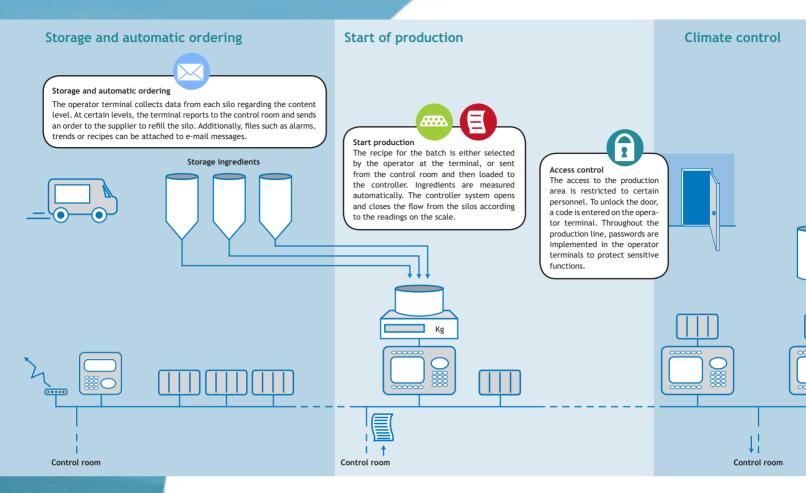
### Data exchange

An operator terminal can serve as a gateway for passing data from one connected controller to a second controller. Likewise, it is possible to exchange data between controllers connected to different operator terminals in a network, and even between controllers of different brands.

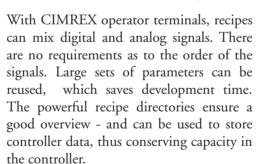
\* This application example is for demonstration purposes only. The illustrated application cannot be used as an actual application.



# The right functionality



### Powerful recipe handling []



Recipes can be created and edited from the terminal, the controller system or from a PC. Thanks to the networking functionality, existing recipes can be uploaded and edited, and then returned via a network.

### Access to the controller <a>\_</a> through the terminal

Passthrough mode enables, among other things, programming or troubleshooting of the controller with a PC connected to the terminal.

Transparent mode enables parallel communication with the controller for a PC or a master operator system, for example, when connected to the terminal's second port - without interrupting the terminal's ordinary operation.

### No protocol mode ==



In this mode, a serial device such as a barcode scanner or a scale can be connected to the controller through the terminal's second port.









### Production and quality control

To ensure an optimal production environment, the indoor climate is closely monitored. At certain levels of temperature, humidity or gas contents, alarms in different groups will go off, alerting the operator and providing information about the severity of the alarm. All levels are recorded in historical trends. The trends are sent to the

control room at regular intervals, and the data is part of the final production report for the batch.

For maintenance and support reasons, the climate control system is accessible via the Internet with terminal applets. This enables a support engineer to view and operate terminals exactly as if operating on location.

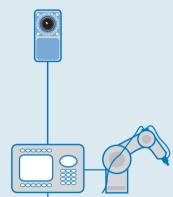
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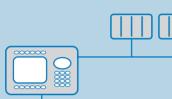














### Trends W



Real-time or historic trending is available in the operator terminals from the CIMREX 30 to the CIMREX 91. The trend functionality features Real-time trending down to 1-second sampling intervals with up to six curves in one trend. One trend can hold up to 65,534 samples.

Trend history is saved in the terminal and can either be viewed in the terminal, or transferred to a PC over a TCP/IP network or serially. The data file is a standard text file that can be imported into Excel (or other programs) for further analysis.

A project can hold any number of trends, the only limitation is the terminal memory size - which is expandable with memory cards for most terminals.

### Advanced alarm and (i) event management



CIMREX alarm and event management provides a powerful tool for both operators and supervisors. Alarms can be sorted into as many as 16 groups — according to priority or type, for example, which gives the operator a good overview. Both digital and analog signals can activate alarms.

An information page can be easily linked to each alarm, giving the operator an overview of what has happened and, for example, provide a list of suggested actions.

Alarms with texts and pictures can be sent via e-mail, or to a printer in the network. Historical alarm data can be viewed in the terminal or transferred for viewing on a PC via the network or serially.

### Access management (1) with passwords

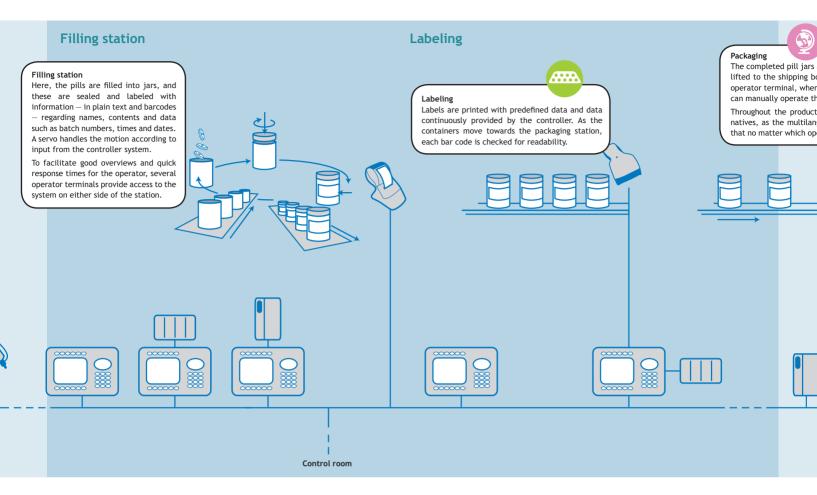


Each function key and object can be password-protected, permitting, for example, two or more authorization levels within one project for certain tasks. Up to eight security levels can restrict access to the terminal's functions.

Automatic log-out prevents access rights from being abused after the password owner leaves the terminal. Passwords can be edited during run-time, which means that no project changes from the programming tool are required to change passwords.

The operator terminal can be used to control access to certain physical areas of production, such as a sterile room. To protect the application, a password prompt may be added to prevent unauthorized persons from uploading a project from a terminal.





# Easy adaptation to international applications

With multilanguage support — which includes support for Unicode-based characters — CIMREX operator terminals fit in any application, worldwide.

- Multilanguage support enables the operator to choose between up to ten languages and will save development time if the same application is implemented in different parts of the world.
- Unicode support enables the terminal to present characters from most languages, Asian as well as Western. Writing in Asian characters is easy, as the characters are presented in a keyboard window in the programming tool.
- The language file can even be exported for translation and then easily imported back into the project.

# Easy control - Raiso via networks

CIMREX operator terminals provide you with full flexibility — updating, monitoring and operation via networks, including the Internet. Depending on the protocol, the controller system can also be monitored and updated over a network.

The terminals can be connected in a network in many different ways, with Ethernet or serially. The terminals operate in a client/server network, which offers fast communication.

# Operate remotely - terminal and controller

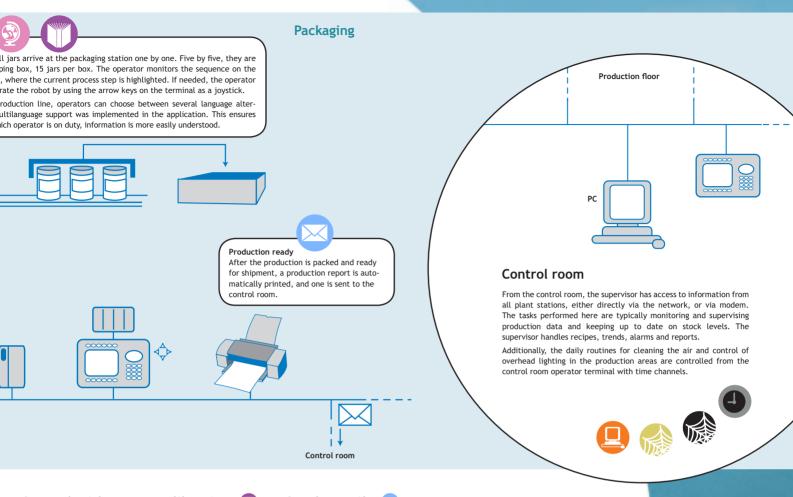


Surfing into the terminal via a web browser with Beijer Electronics terminal applets enables you to operate the terminal from your PC's Internet Explorer. You see and operate the terminal just as if you were operating it locally. This is an easy way of providing on-site support for operators.

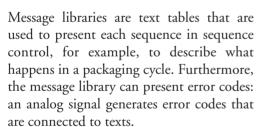
With additional HTML-pages stored in the terminal, you can safely write data to the controller in a customized view. The HTML-page can, for example, contain only certain signals that the remote user is allowed to access. The HTML-pages are accessed independently of the terminal's regular operation.

With the terminal functioning as an FTP server, files such as recipes, alarms and trends, can be uploaded/downloaded to/ from the terminal over the network.

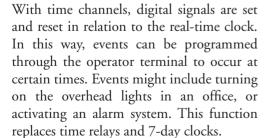




### Control with message libraries



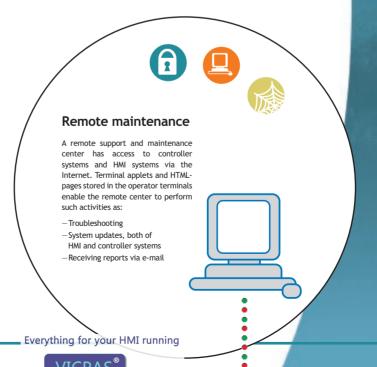
# Time control with time channels



#### Send e-mail



The operator terminal can send e-mail messages when certain events occur, e.g. alarms, key presses, or at certain time intervals. Trend files can also be sent via e-mail.

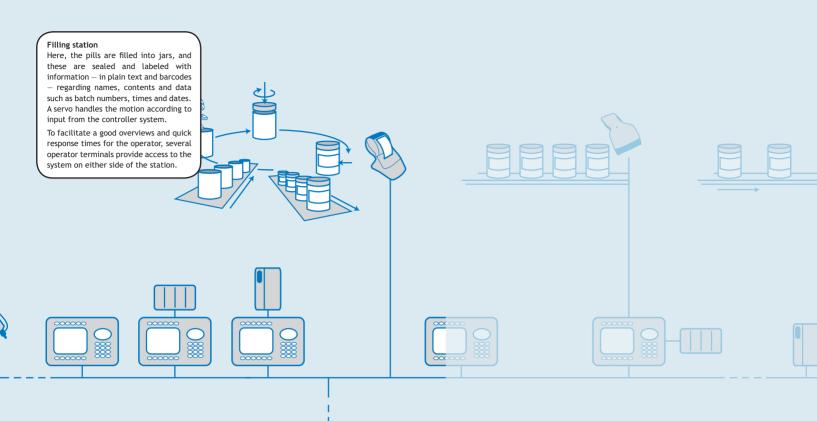


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### Easy update of drivers

To increase your flexibility in communication and connectivity, new drivers are continuously developed and existing ones updated. Drivers are easily installed from the Internet through the programming tool, and are smoothly transferred to the terminal with the project application. The system program in the terminal is independent of the driver and is not affected when a new driver is downloaded. Converting a project to a different operator terminal is not a problem, as the same driver is used for all the CIMREX series operator terminals.

### Unlimited communication

All the most commonly used brands are now supported by our drivers, including Siemens, Allen-Bradley, Matsushita, Omron, Modicon, Toshiba, SEW Eurodrive and GE Fanuc. More are continually being added. Visit www.beijerelectronics.com for the latest information.

### Suits all needs

### Compact text-based operator terminals

The four text-based operator terminals in the CIMREX series all provide function keys for easy control of predefined actions. All have backlit STN-LCD displays and the CIMREX 12 features programmable backlight dimming (0-100%). The displays have two or four lines of 20 characters.

Additionally, the CIMREX 10 to the CIMREX 20 offer functions such as recipe management, passwords and support for dual drivers, passthrough and transparent mode as well as multilanguage.

This group consists of the CIMREX 5, CIMREX 10, CIMREX 12 and the CIMREX 20.

Please turn to the product overview table for further details on each operator terminal.



### Graphic operator terminals with keypads

With displays from 5.2" monochrome to 10.4" high visibility TFT-LCD, the CIMREX series offers a wide selection of graphic operator terminals. These terminals have eight, 16 or 22 programmable function keys.

All graphic terminals have built-in web functionality (web server, e-mail and FTP transfer) in addition to functions such as recipe and alarm management, trends, passwords and support for dual drivers, passthrough and transparent mode as well as multilanguage and Unicode support.

One or two expansion card slots provide the opportunity to expand memory or increase connectivity with PROFIBUS DP or Ethernet, for example.

This group consists of the CIMREX 30, CIMREX 60, CIMREX 70, CIMREX 90 and the CIMREX 90D.







This group includes displays of 3.8", 5.7" and 10.4". The smallest is a black and white terminal with built-in Ethernet and backlight dimming. The 5.7" display terminals range from gray-scale STN-LCD to 256-color TFT-LCD, and the 10.4" TFT-LCD display terminals includes one with 100-240 V AC, and one with +24 V DC power supply. The 3.8" and 5.7" terminals can be mounted either horizontally or vertically.

All touch interface operator terminals feature web functionality in addition to functions such as recipe and alarm management, trends, passwords and support for dual drivers, passthrough and transparent mode as well as multilanguage and Unicode support.

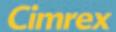
One or two expansion card slots provide the opportunity to, e.g. expand the memory or add Ethernet functionality to all the graphic operator terminals, except CIMREX 41 which has built-in Ethernet.

This group consists of the CIMREX 41, CIMREX 67, CIMREX 69, CIMREX 69T, CIMREX 91 and the CIMREX 91D.

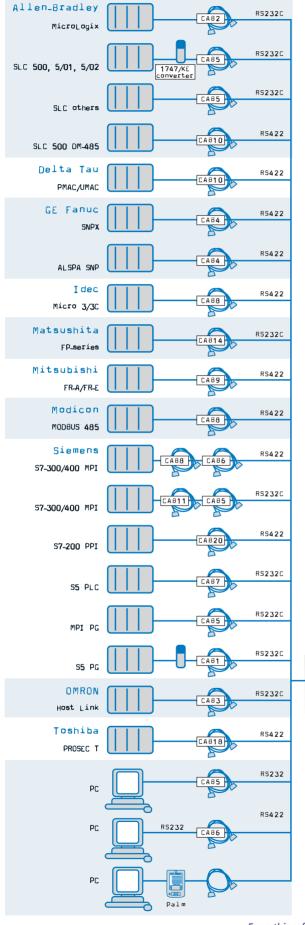
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### Connectivity

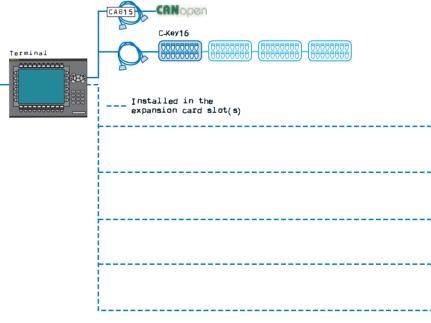


### **Accessories**

Beijer Electronics' product range includes a number of accessories for the operator terminals:

- Expansion cards expand the functionality and connectivity of the operator terminal: Increased memory, parallel printer interface and PROFIBUS DP and Ethernet access.
- CANopen network access with the CAB15 CANopen adapter and driver.
- With the extended function keyboard C-Key16, more function keys and LEDs are added to the operator terminal.
- Custom-made cables for communication with most controller systems.

The table on the left gives an overview of the connectivity of the operator terminal, and of which cables to choose for various systems. Try the online cable guide on our website.





### Communication

### Communication

Beijer Electronics continuously develops new drivers for communication between operator terminals and controllers, servos and other devices.

All the most commonly used brands are supported, including Siemens, Allen-Bradley, Matsushita, Omron, Modicon, Toshiba and GE Fanuc.

The driver list continues to grow and increase communication options for our customers. We offer drivers for more than 70 protocols. Currently, the Ethernet drivers include\*:

Allen-Bradley ControlLogix

Allen-Bradley SLC

DVT 600-series

Giddings & Lewis PiC

JETTER JetControl24x

Matsushita FP-series MEWTOCOL

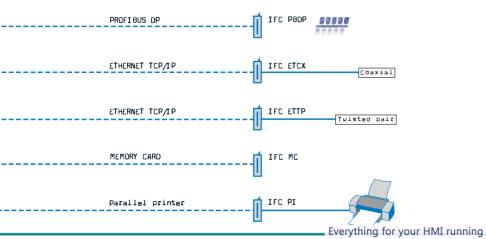
Omron FINS

SAIA PCD-series S-BUS

Siemens SIMATIC S5/S7

Beijer Electronics' ranges of accessories and drivers are under constant development.

# Visit www.beijerelectronics.com for a comprehensive list of drivers





Cimrex

<sup>\*</sup>at the time of printing

# A complete family of operator terminals

		CIMREX 5	CIMREX 10	CIMREX 12	CIMREX 20	CIMREX 30
DISPLAY	Display type	STN-LCD	STN-LCD	STN-LCD	STN-LCD	STN-LCD
	Presentation form	Text	Text	Text	Text	Graphics + Text
	Display size	2 rows x 16 characters	2 rows x 20 characters	2 rows x 20 characters	4 rows x 20 characters	240 x 64 pixels
Active	area of display W x H (mm)	55.7 x 11.0	73.5 x 11.5	75.4 x 11.5	70.4 x 20.8	127.2 x 33.9 (5.2")
	Backlight lifetime (h)	50,000	50,000	50,000	50,000	50,000
	Text height (mm)	5	5	5	5	Variable
KEYBOARD	LEDs	_	_	_	5 (two colors)	16 (two colors)
	Function keys	4	3	3	5 (with text strip)	8 (with text strip)
FUNCTIONALITY	Transparent mode (1)	_	Yes	Yes	Yes	Yes
	Passthrough mode	_	Yes	Yes	Yes	Yes
Dual dr	ivers with data exchange	_	Yes	Yes	Yes	Yes
Web functiona	ality (server, e-mail, FTP)	_	-	-	-	Yes
Multilanguage/Unicode support		_	Yes/—	Yes/—	Yes/—	Yes/Yes
Recipe management		_	Yes	Yes	Yes	Yes
	Alarm management	-	-	-	1 group	Up to 4 groups
Time channels Real-time clock		_	Yes	Yes	Yes	Yes
		-	Yes	Yes	Yes	Yes
	Trend graphs	-	-	-	-	Real time
Report printouts		_	Yes	Yes	Yes	Yes
Password security		_	8 levels	8 levels	8 levels	8 levels
Buzzer		_	_	-	-	Yes
Application memory		16 kB Flash	64 kB Flash	64 kB Flash	64 kB Flash	400 kB Flash/8 MB expansion
Number of expansion card slots		-	-	-	-	1
C	communication interfaces	RS422 or RS232	RS422 and RS232	RS485/RS422, RS232(2)	RS485/RS422, RS232(2)	RS422 and RS232
Terminal reflection via Internet		_	_	_	_	Yes
Support for HMI Tools for Palm™ handhelds		Yes	Yes	Yes	Yes	Yes
	Support for C-Key16	-	-	-	-	Yes
ENVIRONMENT	Ambient temperature	0 °C - +50 °C	0 °C - +50 °C	0°C - +50 °C	0°C - +50 °C	0°C - +50 °C
	Waterproof front	IP65, NEMA 4X (3)	IP65, NEMA 4X (3)	IP65, NEMA 4X (3)	IP65, NEMA 4X (3)	IP65, NEMA 4X (3)
	EMC	EN50081-1, EN61000-6-2	EN50081-1, EN61000-6-2	EN61000-6-3, EN61000-6-2	EN50081-1, EN61000-6-2	EN50081-1, EN61000-6-2
	LVD	_	-	_	_	_
	UL	UL 508, UL 1604 (4)	UL 508, UL 1604 (4)	UL 508, UL 1604 (4)	UL 508, UL 1604 (4)	UL 508, UL 1604 (4)
	DNV	Yes	Yes	Yes	Yes	Yes
POWER	Power supply	+5 VDC ±5 %	+5 VDC ±5 %	+24 VDC, 20-30 V	+24 VDC, 20-30 V	+24 VDC, 20-30 V
	Power consumption	Max 200 mA (5 V)	Max 200 mA (5 V)	Max 150 mA (24 V)	Max 150 mA (24 V)	Max 450 mA (24 V)
<b>DIMENSIONS</b> D	rimensions W x H x D (mm)	104 x 69 x 38.5 (4.1"x2.7"x1.6")	142 x 90 x 32 (5.6"x3.5"x1.3")	142 x 90 x 46.5 (5.7"x3.6"x1.9")	147 x 163.5 x 43 (5.8"x6.4"x1.7")	214 x 194 x 75 (8.4"x7.6"x3.0
	Weight (kg)	0.2 Ever	 rything for your HMI ru	nning	0.7	1.5





<sup>1)</sup> In Transparent mode the coordiller can be accessed simultaneous VICPAS and an additional unit, such as a NC (dependent on a NCOM)

- 2) Two interfaces can be used simultaneously
- 3) Indoor use only
- 4) Class I Div 2, Groups A, B, C, D and T4

# The right functionality



**IMREX 91/91D** 

T-LCD color, touch

raphics + Text 10 x 480 pixels

11.2 x 158.4 (10.4")

0,000

ariable

es/Yes

p to 11 groups

istorio

levels

500 kB Flash/8 MB expansion

5422 and RS232

°C - +50 °C 1: IP65, NEMA 4

1D: IP65, NEMA 4X (3)

1: EN50081-2, EN61000-6-2

1D: EN61000-6-4, EN61000-6-2 1: EN60950

1: UL 1950, UL 1604 *(4)* 

1D: UL 508, UL 1604(4)

1: 100-240 VAC

1D: +24 VDC, 20-30 V

1: Max 0.35 A

1D: 1 A

90 x 247 x 114 (11.4"x9.7"x4.5")



This table gives an overview of technical data and functionality for the CIMREX series operator terminals. All operator terminals are of the same high-quality design but vary in size and performance, from small text based operator terminals to large graphic operator terminals. Just choose the operator terminal from the CIMREX series that best suits your needs!

### One programming tool

All terminals, as well as the C-Key16, are programmed with the powerful and user-friendly programming tool, CIMREX PROG.

# Increase the functionality

### **Expansion cards**

With one or two expansion card slots, the operator terminals CIMREX 30 and CIMREX 60 through CIMREX 91 offer the opportunity to increase functionality with the following cards:

IFC MC memory card increases terminal memory with a PCMCIA flash memory card of 4 or 8 MB. The card can be used either for increasing project memory in the terminal, or for backup copies of trends, recipes, etc.



IFC PI parallel printer interface for connecting printers with parallel interface for black and white printouts of graphic blocks, reports, alarm lists, etc.

IFC ETTP /ETCX Ethernet card for connecting terminals to an Ethernet via TCP/IP, twisted pair or coaxial cables.

IFC PBDP PROFIBUS DP for connecting the terminals as slave nodes in a network with the PROFIBUS DP fieldbus.

### CANopen adapter

The CANopen adapter and driver enable connection of the CIMREX operator terminals to a CANopen network. With the CANopen adapter and driver, the operator terminal can serve as master or slave node in a CANopen network.



### Increase the flexibility

### Extended function keyboard

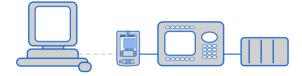
The extended function keyboard C-Key16 expands the functionality of operator terminals by adding 16 function keys with text strips and LEDs to a touch terminal, or by simply increasing the number of function keys for other terminals.



The keyboard measures 200 x 110 x 28 mm and has RS232, RS422 and RS485 ports. Up to four extended keyboards can be connected to one operator terminal. All of Beijer Electronics' graphic operator terminals from the CIMREX 30 to the CIMREX 91 support the C-Key16.

### Safe and easy updates in the palm of your hand

With the freeware application HMI Tools for Palm<sup>TM</sup> handhelds, Beijer Electronics provides you with an opportunity to easily maintain and update remote applications.



- Safe update of system programs and projects without traveling with your PC - just send a Palm™
- Stay connected on the factory floor with easy upload and download of recipes, alarms, trends and HTML-pages

### Free downloads

You will find this freeware on our website as well as other valuable features:

The online cable guide helps you find the right cables for your application, and the downloads area provides you with extensive help and information. Download manuals, program updates, Start-up documents, software examples, manufacturer's declarations, free demos, new drivers and much more...

### www.beijerelectronics.com



# This is Beijer Electronics

Beijer Electronics is a world-leading supplier of operator terminals. With more than twenty years of experience in developing and marketing HMI products, we have unique knowledge and understanding of the requirements for operator terminals in the global market. Close, long-term relationships with distributors, OEMs and brand-label partners continuously contribute to making our operator terminals exceptional products. The high quality and functionality of our product range provides the right functionality for any need.

Advanced features and quality of design make our operator terminals ideal for any industry. Our operator terminals are used in the following sectors: automotive, pharmaceutical, food, packaging, semiconductors, power, telecom and offshore.

Beijer Electronics AB is quoted on the Stockholm Stock Exchange. The head office is in Malmö, Sweden, with subsidiary offices in Germany and the US.



**Head Office** Beijer Electronics AB SE-201 24 Malmö, Sweden Telephone +46 40 35 86 00 Telefax +46 40 93 23 01

**Branch Offices** Beijer Electronics GmbH Zettachring 2A DE-705 67 Stuttgart, Germany Telephone +49 711 327 599-0 Everything for your HMI running Telefax +49 711 327 599-10

Beijer Electronics Inc. 939 North Plum Grove Road, Suite F US-Schaumburg IL 60173, USA



Q +86-15876525394