GEA Omni™ control panel

The intuitive touch for refrigeration and gas compression control technology

engineering for a better world

gea.com

Market-driven innovation

GEA is synonymous with precision-engineered solutions, and the GEA Omni™ control panel extends its history of leadership and innovation. Featuring a high-definition, multi-touch screen, GEA Omni delivers the ease of use and technical wow factor that industry professionals have come to expect from GEA. Powerful, yet approachable. Cerebral, yet intuitive. Sophisticated, yet simple. Simply – GEA Omni.

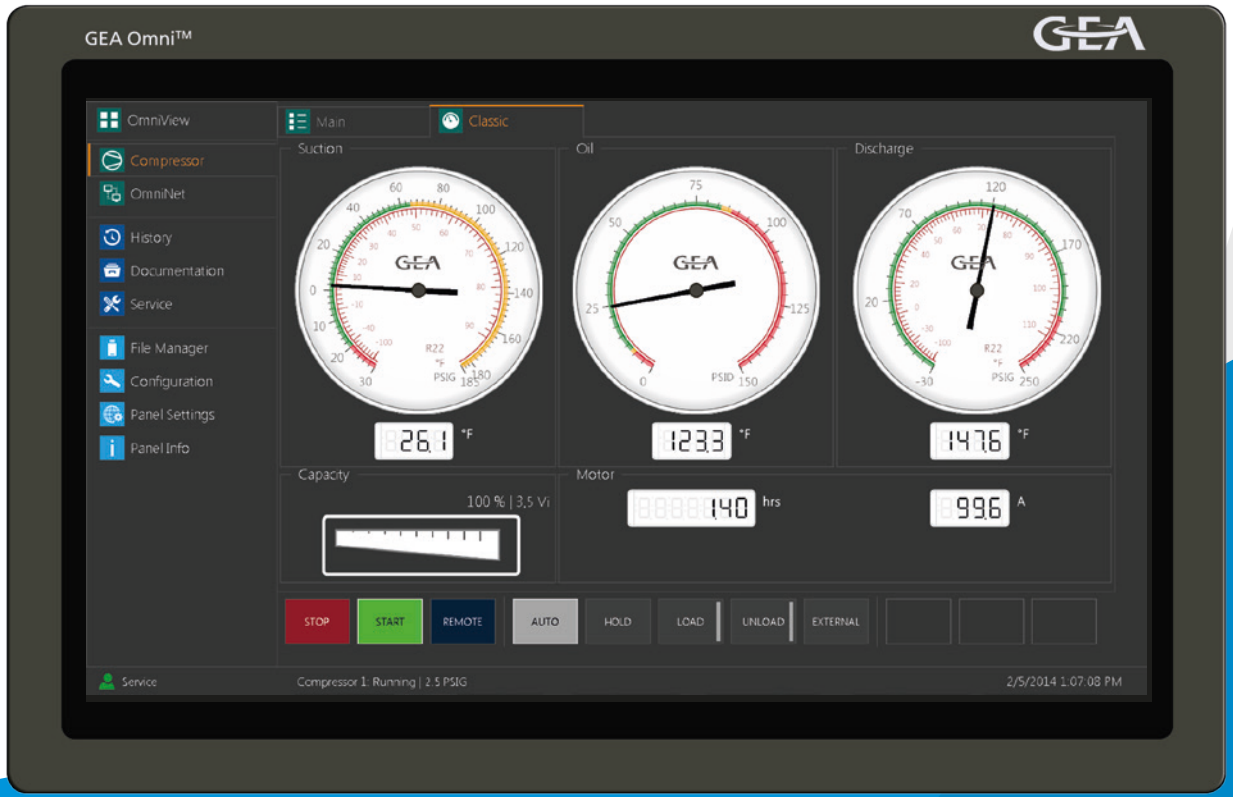
GEA Omni offers what operators expect from a control panel: maximum efficiency and reliable operation of their system. This next-generation control panel integrates and optimally coordinates all required system components, resulting in a demand-driven and highly energy-efficient facility operation.

High-definition, easy-to-use HMI

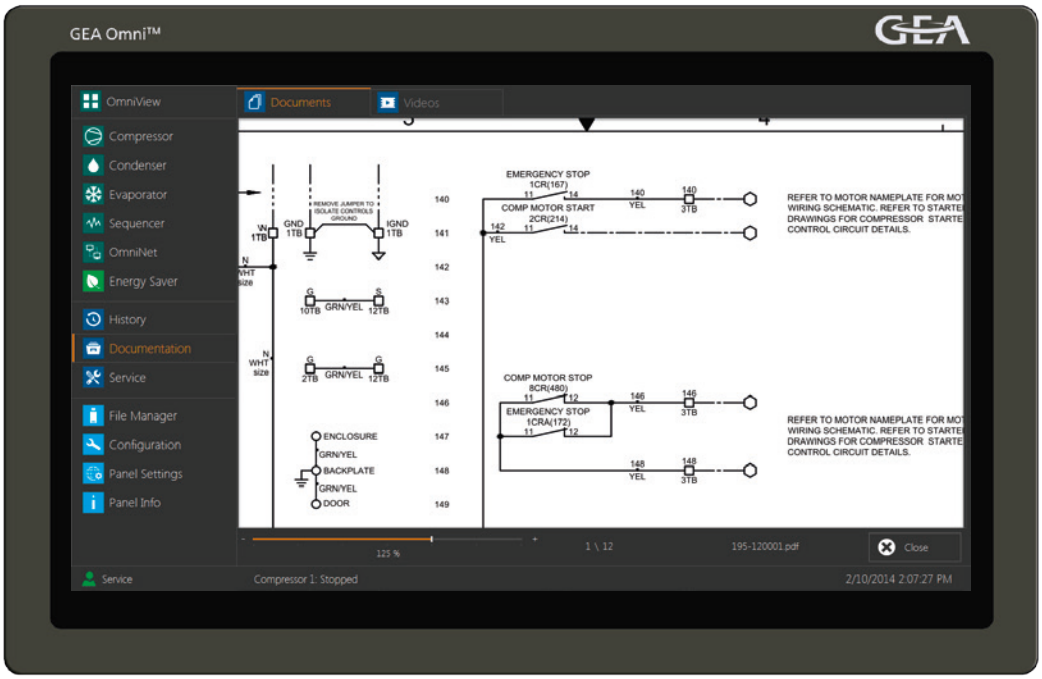
Featuring a true high-definition (1366 x 768 pixels) color display, the GEA Omni human-machine interface (HMI) provides clear visualization of drawings, images, and text. Furthermore, GEA Omni incorporates single- and multiple-finger gestures used in many modern consumer electronics, adding an instinctive aspect to paging through selections and zooming documents or historical graphs. An intuitive menu system, where the information you need remains only a touch or two away, ensures routine functions are easy to perform by non-technical personnel. On-screen buttons and commands required for daily operations have been clearly and logically grouped. The GEA Omni HMI makes membrane keypads and tedious navigation obsolete.

One solution

GEA Omni has been designed as an open system. As a result, it can monitor and control not only the relevant components from GEA, but also those from other companies. Configuration of the control system and the operation modes takes place initially at the GEA factory and then may be adjusted during commissioning on-site, directly at the GEA Omni. The system openness makes it an all-inclusive command center, eliminating the need for auxiliary control systems. GEA Omni shows operating states not only for main components, but also for ancillary equipment. Whether it be monitoring and managing the position of a valve or the operation of a pump, the entire refrigeration or gas compression system can be controlled from one panel.



The "Classic" view gives operators essential information that's easy to read.



Piping, wiring, and logic diagrams of the control system are a finger-tap away.

Integration

In addition to its visually stunning and intuitive HMI, the GEA Omni control panel appeals to not only operators but system integrators as well. As it comes from the factory, GEA Omni satisfies typical industrial communication standards (e.g. Modbus TCP, EtherNet/IP, Modbus RTU, and Allen-Bradley DF1) for purposes of data exchange with both auxiliary and supervisory control system components. Moreover, a standard Ethernet interface is provided that enables the use of wireless technology and smart phone or tablet viewing capability. Authorized service staff and service companies can access the control system remotely. GEA Omni can also send email and text message notifications, eliminating the need for hard-wired annunciation signals that are otherwise necessary for integration of control systems.

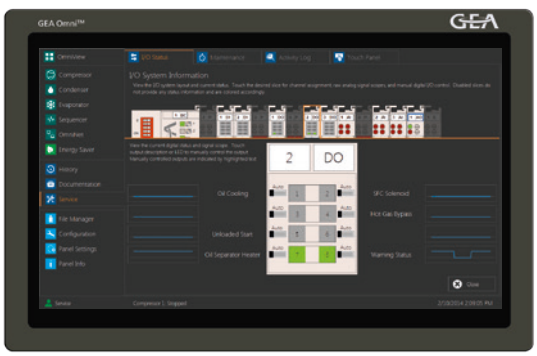
Authorized maintenance staff and service companies can access GEA Omni from remote locations.

Videos add a finishing touch to documentation.

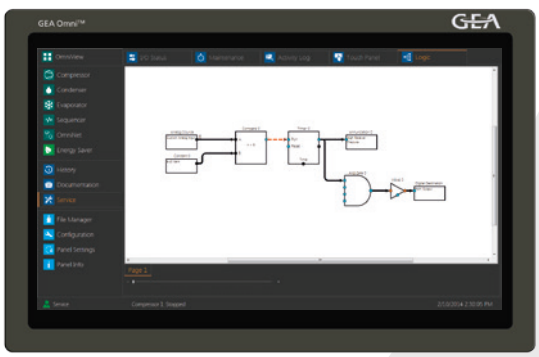
Drawings, manuals, and videos

Quick access to documentation available for on-screen viewing can prove to be invaluable during new system commissioning or when troubleshooting. Every GEA Omni includes supporting documentation from the factory. In addition, up to 1 GB of the following can be easily stored and retrieved by the user via the USB port in the panel door:

- Operating manuals
- Process Safety Management documents (PSM)
- Electrical wiring diagrams
- Piping and instrumentation diagrams
- Mechanical drawings
- Component specifications
- Standard Operating Procedures (SOPs)
- Logic diagrams
- Documents in PDF format
- Videos in AVI, MP4, or WMV format



Safe on-screen interaction with input/output (I/O) system.



Logic diagrams – a valuable tool, especially for troubleshooting.

The GEA Omni advantage

Complete system control in one panel
Control your entire refrigeration or gas compression system with one GEA Omni

Hardware layout
Standard industrial components with modular layout

High-definition display
1,366 x 768 resolution

Unique user setup and auditing
Create unique users and monitor usage/actions

GEA OmniLink™
Application to remotely view and manage your GEA Omni control panels with Ethernet file transfer

Configurable Modbus TCP Ethernet communication
Read/Write information from other controllers without additional wiring

Multi-touch display
Natural and intuitive input

GEA peace of mind

Invented, manufactured, and backed by the worldwide leader in refrigeration and gas compression control panel technology

Drawings, manuals, and videos

Documentation at your fingertips with helpful videos available on the panel display

Field configurability

Easy retrofit panel installation

Predictive maintenance

Notifications for recommended service

Global product with local sales and support

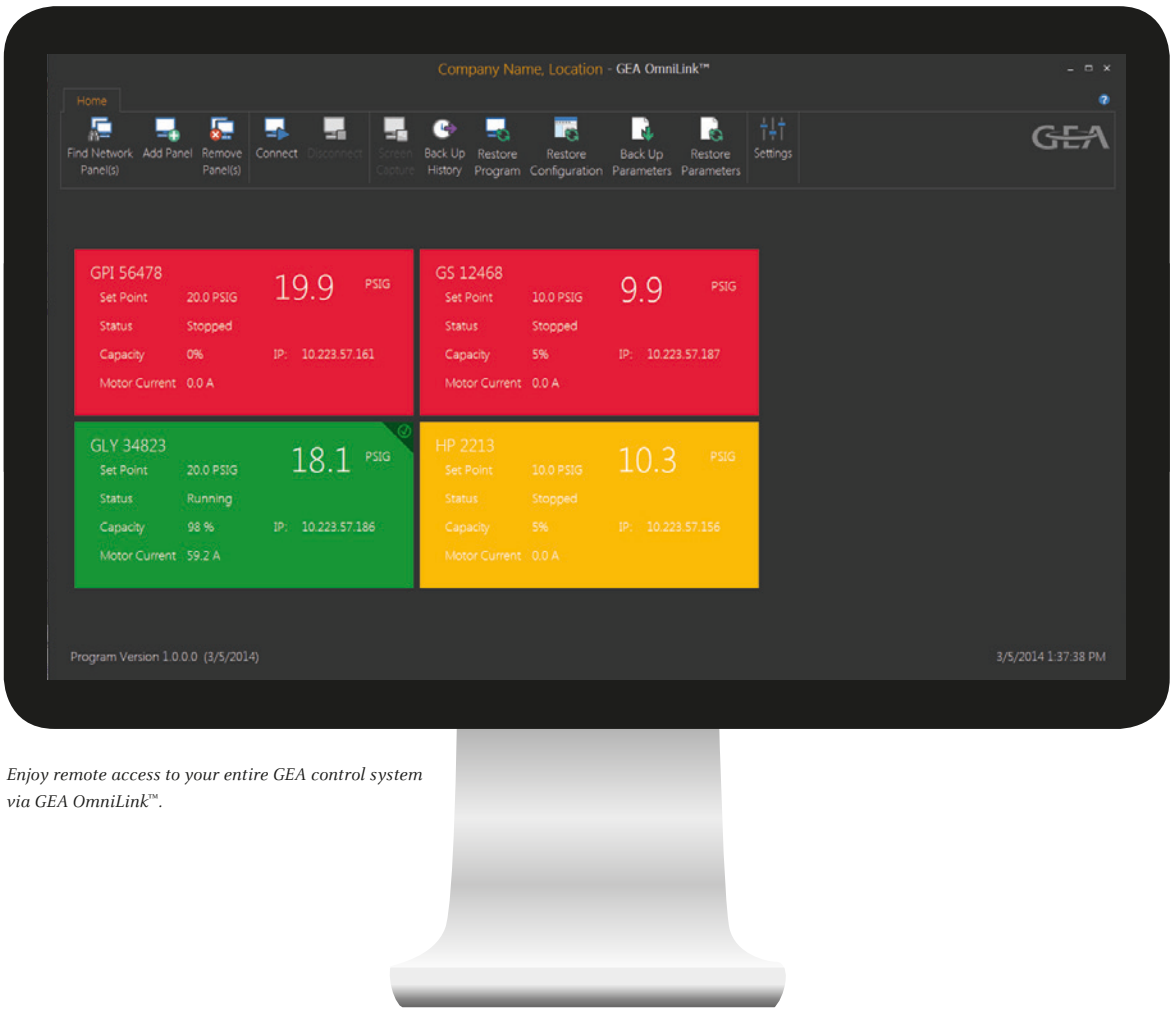
- Single design
- Manufactured in North America, Europe, and Asia
- Preconfigured in more than 25 languages

GEA OmniHistorian™

Application to view historical data from GEA Omni control panels and perform detailed analysis

Monitor the present – analyze the past

Integrated apps keep you in touch with your equipment



Enjoy remote access to your entire GEA control system via GEA OmniLink™.

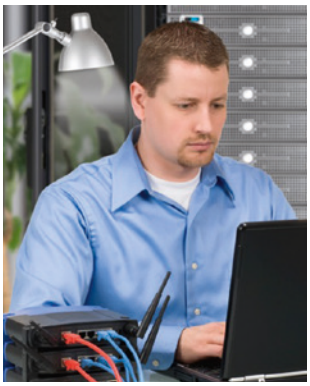
GEA OmniLink™

Included with every GEA Omni control panel is GEA OmniLink™ – a stand-alone Microsoft Windows© operating system application designed to automatically find GEA Omni panels on the same Ethernet network, read panel status, perform automatic data backup and reporting and view the present panel screen as if viewing the panel on-site. This application provides a convenient means of transferring configurations, programs, historical data, and parameters over an Ethernet network without the need to insert a USB memory device into the panel.

Analyze past operating data with GEA OmniHistorian™.

GEA OmniHistorian™

GEA OmniHistorian™ is a Microsoft Windows© operating system application used to view and analyze historical data. GEA Omni stores years of operating information at a user-defined sampling rate. This information consists of I/O data, event logs, parameters, energy analysis, maintenance, revisions, and annunciations, which can be easily transferred over Ethernet using GEA OmniLink. Furthermore, GEA OmniHistorian can create custom reports, and viewable data can be printed or exported to (an) XLS formatted file(s).



Secure – right out of the box

Up to 25 unique users can be created, each with a customizable view of operating data, control parameters, and panel screens. Each unique user's login history and actions are recorded in the panel for auditing purposes. Control parameters may be adjusted only within allowable limits, and all changes are logged in the panel's history for security and administrative review. As a result, GEA Omni helps to minimize operator mistakes and system failure. GEA Omni provides three levels of security – Operator, Service, and Administrator.

Operator level can:

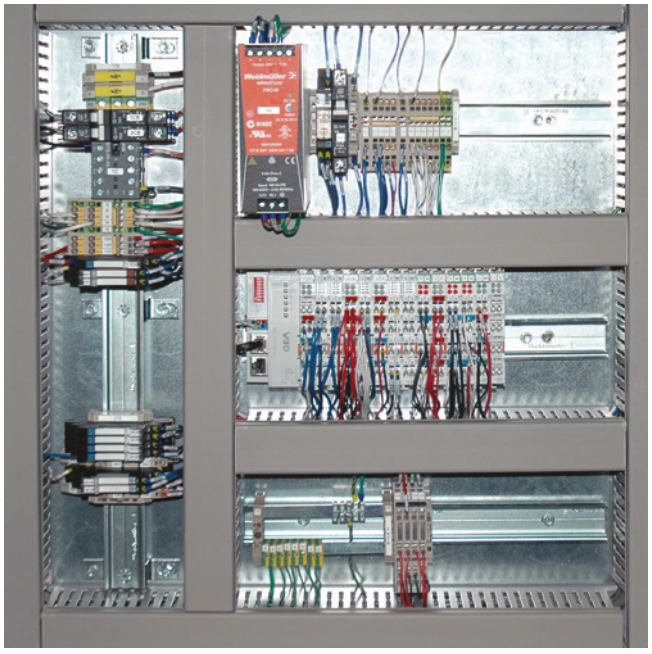
- Monitor parameters and equipment status
- Select operational modes and personalize data views
- Observe and manage annunciations and error reports
- Change language and engineering units

Service level can:

- Modify all parameters and settings
- Download program and configuration updates
- Define operator- and service-level users
- Troubleshoot I/O system with advanced on-screen diagnostic tools

Administrator level can:

- Modify control system configuration
- Securely access GEA Omni with an encrypted file, eliminating the use of a common password
- Change the compressor selection and control options on retrofit panels



Field connection wiring is easily accessible in a dedicated section (lower left) of the control panel.

Reliable hardware

The GEA Omni is a modular design, featuring a robust I/O system of standard industrial components. The compact space utilization of this I/O system allows for more devices to be controlled in a single panel. In addition, the Ethernet-based design allows for flexibility of remote I/O in separate enclosures, all of which are interconnected using standard Ethernet cabling.

Layout and wiring

The interior of the GEA Omni exhibits well-organized separation of high- and low-voltage sections, providing safe and simple wiring. Uniform connection design, clear labeling, and color coding contribute to easy installation. All control wiring to field devices is terminated in a dedicated panel section. Thanks to the flexible method of interconnecting I/O system components, wiring is kept to a minimum. These features allow fast inspection and commissioning.

Field configurability

Does the screw compressor have an economizer solenoid that was not accounted for in the panel configuration? Is the oil pump operation different than preconfigured on the control panel? These common issues during a retrofit panel installation will no longer require assistance from the factory. GEA Omni offers authorized personnel the flexibility to modify the configuration and reassign the I/O system to suit the needs of the application.

Energy Management

Energy costs are typically a facility's largest operating expense. But with the GEA Omni control panel's abundant capabilities, which include the effective management of energy usage, that operating expense can be significantly reduced. GEA Omni's Energy Saver function is designed to enable users to effectively reduce operating costs by finely controlling key aspects of their process to utilize the minimal amount of energy required.

Through a fine-tuned approach to compressor control and sequencing, condenser control and sequencing, refrigerant vessel and pump control, evaporator control, and a myriad of reactive and proactive energy management techniques, GEA Omni's Energy Saver delivers where it counts most – on the bottom line – and contributes to the achievement of operators' sustainability-related goals by reducing their carbon footprints.

One global product – GEA peace of mind

Manufactured in North America, Europe, and Asia, GEA Omni consists of a single design engineered to meet the needs of a global customer base. Preconfigured in more than 25 languages, GEA Omni carries the benefit of global sales and support. Rest easy knowing your facility is controlled by a product that is invented, manufactured, and backed by the worldwide leader in refrigeration and gas compression control panel technology.

GEA Omni's Energy Saver function allows operators to evaluate system energy usage and adjust to reduce operating costs.

engineering for
a better world

We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

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