

# TOUCH PANEL 600

# Aesthetic Design Meets High Performance



# **OUR ADDED VALUE AT A GLANCE**



#### **High Performance**

Parallel execution of computing operations with a Cortex A9 Multicore processor providing high operating speed.



### Openness

High performance WAGO hardware combined with the future-ready Linux® operating system; for complex tasks, you can choose between programming in IEC 61131 or directly in Linux<sup>®</sup>.



### e!COCKPIT

The elCOCKPIT Engineering Software, which is based on CODESYS V3, is used for visualization, programming, offline simulation, configuration of the fieldbuses, recipe management and much more.



### **Flexible Interface Options**

Touch Panel offers three different architectures: Web, Visu and Control, with three levels of device technologies: Advanced, Marine and Standard.



#### **IIoT-Ready**

Through the use of a library, the Control panel becomes an IIoT touch controller than can send data from the field level to the cloud.

### Cybersecurity

The SSH and SSL/TLS encryption methods are integrated by default for establishing secure HTTPS and FTPS connections. A firewall provides additional protection against unwanted access.

#### **HTML5** Visualization

The use of standardized state-of-the-art technology allows the visualization to be displayed on mobile devices like smartphones and tablets.









### **Multi-Touch Capability**

Devices with capacitive touchscreens allow gesture recognition, e.g., swipe gestures for turning pages or zooming.

#### **Docker Containers**

The Control panel supports Docker Containers, providing the ability to run applications in parallel with your logic and visualizations.

#### **Convenient Operation**

Sensors can automatically adjust the brightness of the panel based on a room's ambient lighting conditions. The position of the screen setting buttons on the front side allows user-friendly adjustment.



#### **Energy Efficiency**

An integrated proximity sensor controls the screen saver and automatically displays the screen when the operator is present. An integrated light sensor detects ambient lighting levels for brightness control.



### Anti-Reflective

The black front plate on the marine devices absorbs incident light and prevents reflections.





### **Maintenance-Free**

The Touch Panel has no fan or battery, making it completely maintenance-free.

#### **High Protection Class**

With specially developed clamps, the NEMA 4X / IP65 degree of protection can be achieved for the front of the display. This design flexibility makes the panel extremely versatile and suitable for a wide variety of applications.



## **THREE PRODUCT FAMILIES**

Operate, observe, visualize and diagnose in factory, process and marine applications. Touch Panels with various hardware configurations are ideal for small-to-mid sized control and visualization tasks. Underneath a contemporary design, our Touch Panels pack some of the industry's most powerful technology, allowing you to harmonize the high-tech image of your machines through high quality and high performance visualizations. With three architectures to choose from, you can select the best strategy for your application.

**Web Panel:** Pair with WAGO's web server enabled PLCs for a stylish operator interface.

**Visu Panel:** Share the control load between the PLC and operator interface.

**Control Panel:** An all-in-one HMI and PLC; a high performance controller with high quality graphic resolutions.



# **THREE PRODUCT STYLES**



### STANDARD LINE

Devices with resistive touch screens for standard control cabinet applications

### MARINE LINE

Devices with black matte anti-reflection surfaces and special marine approvals for use in shipboard automation







### **ADVANCED LINE**

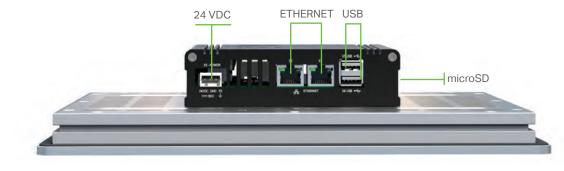
Capacitive multi-touch devices with a glass surface, along with greater mechanical and chemical resistance for more extensive requirements



# **THREE PORT CONFIGURATIONS**

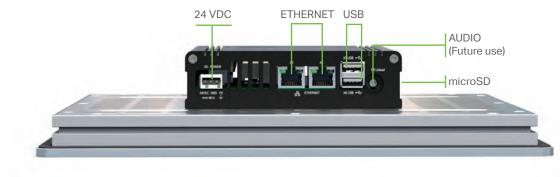
### **CONFIGURATION PI01**

- 2 congifurable Ethernet ports
- 2 USB host 2.0
- microSD (max 2 GB) / microSDHC (max 32 GB)



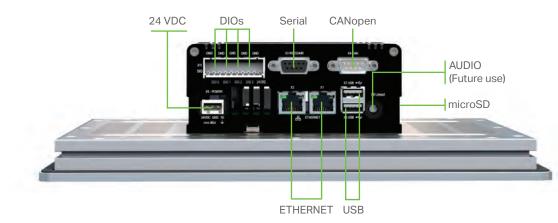
### **CONFIGURATION PI02**

- 2 congifurable Ethernet ports
- 2 USB host 2.0
- microSD (max 2 GB) / microSDHC (max 32 GB)
- Audio (future use)



### **CONFIGURATION PI03**

- 2 congifurable Ethernet ports
- 2 USB host 2.0
- Configurable serial
- 4 configurable DIOs
- CANopen
- microSD (max 2 GB) / microSDHC (max 32 GB)
- Audio (future use)









- PLC and HMI in one device
- Supports Docker Containers
- Fieldbus protocols supported: MODBUS/TCP, CANopen, Ethernet/IP-Adapter
- IIoT-ready (MQTT and OPC UA)

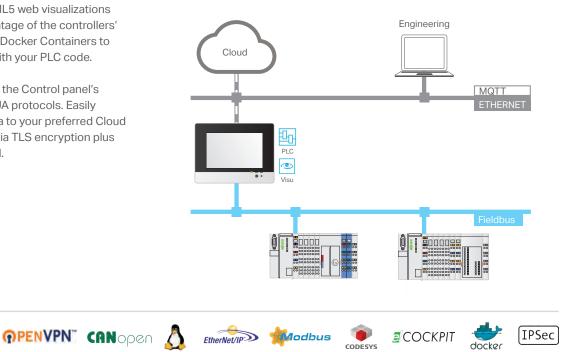
### **CONTROL PANEL**

Control panels combine the features of a PLC and HMI into a single device, providing a compact footprint for your automation system. WAGO's *e!COCKPIT* software is used to develop both the control logic as well as the visualizations, optimizing system development. Leveraging the power of the Touch Panel's quad core processor, the Control panel is well equipped to offer high performance control as well as impeccable graphic resolution. The integrated web server extends the HTML5 web visualizations to other devices. Take advantage of the controllers' Linux<sup>®</sup> operating system via Docker Containers to run applications in parallel with your PLC code.

Your IIoT needs are met with the Control panel's support of MQTT and OPC UA protocols. Easily connect your plant floor data to your preferred Cloud service. Security is offered via TLS encryption plus an onboard Firewall and VPN.

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Multiple fieldbus ports onboard support MODBUS/TCP, CANopen, and Ethernet/IP (adapter mode) protocols. An onboard configurable serial port (RS-232/-485) can be used to connect to additional field devices. Use the Control panel as your gateway between these fieldbuses. In addition, the onboard 4 configurable digital I/O points provide direct input into the controller and can be conveniently wired to commonly used devices.



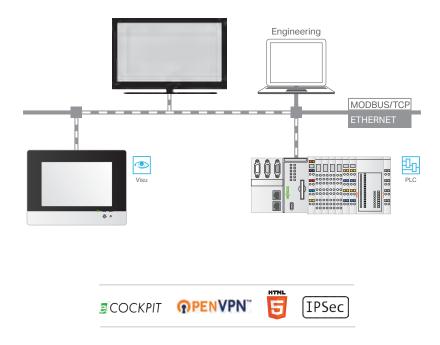
**OPC UA** 



### **VISU PANEL**

Visu panels display dynamic visualizations that are created with elCOCKPIT software and are stored directly in the device's memory. The real-time data is collected from field devices via MODBUS/TCP and network variables. With this architecture, data from multiple PLCs can be aggregated into one operator interface.

The Visu panel has an integrated web server that can host the graphics to standard commercial mobile devices like tablets or smartphones or even a large screen smart TV, expanding the reach of your control strategy.



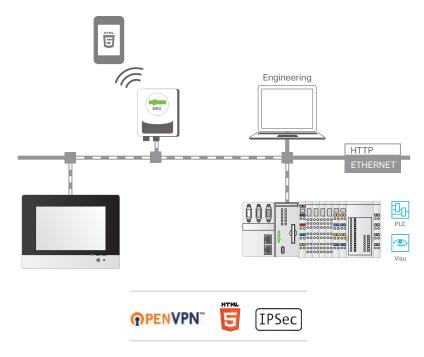


 High performance automation solutions in connection with WAGO PFC100 and PFC200 Controllers

### WEB PANEL

An industrial web browser with high resolution graphics and touch screen, optimized to display web pages hosted from the PFC100 and PFC200 Controllers with onboard web servers. Web visualizations that are created with *e!COCKPIT* (Codesys V3) software and are based on state-ofthe-art HTML5 technology. The visualizations are stored and hosted by the PFC controllers and can be used to monitor and control equipment via an elegant touch screen interface.

Users can take advantage of the HTML5 technology by displaying the same visualizations on other standard commercial mobile devices like tablets or smartphones.





# TECHNOLOGY

Touch Panel 600				
Processor	Multi core Cortex A9	Ethernet Ports 2 (Switched or separated)		
RAM Memory	2 GB	Web server	Onboard (Control and Visu panels)	
Flash Memory	4 GB	Firewall	Integrated	
Expansion	MicroSDHC (max 32 GB)	VPN	IPSec / OpenVPN	
Programming	<i>e</i> !COCKPIT for logic and graphic development	Resolution (Colors)	4.3" 480 x 272 (16 million) 5.7" 640 x 480 (262 thousand) 7.0" 800 x 480 (16 million) 10.1" 1280 x 800 (16 million)	
Fieldbus	Visu Panel: MODBUS/TCP Control Panel: MODBUS/TCP, Ethernet/IP (adapter), CANopen, serial	Touch Screens	Advanced: Capacitive multi-touch Standard/Marine: Resistive single-touch	
lloT Protocols	MQTT, OPC UA (Control panel only)	Protection	NEMA 4X / IP65 front (indoor use only), IP20 back	
Ethernet Protocols	DHCP, DNS, FTP(S), HTTP(S), SSH	OS	Real-time Linux <sup>®</sup> with RT-Preempt	







# **TOUCH PANELS 600**

Versions, Hardware Configuration and Functions

### **STANDARD LINE**

### Single-Touch

Size (inch/cm)	4.3″ (10.9 cm)	5.7″ (14.5 cm)	7.0″ (18 cm)	10.1″ (25.7 cm)
Web Panel Part Number Hardware configuration PIO1	762-4101	762-4102	762-4103	762-4104
Visu Panel Part Number Hardware configuration PIO2	762-4201/8000-0001	762-4202/8000-0001	762-4203/8000-0001	762-4204/8000-0001
Control Panel Part Number Hardware configuration PIO3	762-4301/8000-0002	762-4302/8000-0002	762-4303/8000-0002	762-4304/8000-0002

### MARINE LINE

### Single-Touch

Size (inch/cm)	4.3″ (10.9 cm)	5.7″ (14.5 cm)	7.0″ (18 cm)	10.1″ (25.7 cm)
Visu Panel Part Number Hardware configuration PIO2	762-6201/8000-0001	762-6202/8000-0001	762-6203/8000-0001	762-6204/8000-0001

### **ADVANCED LINE**

### Multi-Touch Capability

Size (inch/cm)		7.0″ (18 cm)	10.1″ (25.7 cm)
Visu Panel Part Number Hardware configuration PIO2		762-5203/8000-0001	762-5204/8000-0001
Control Panel Part Number Hardware configuration PIO3		762-5303/8000-0002	762-5304/8000-0002

More information: www.wago.com/us/touchpanels/600

### **ASSOCIATED PRODUCTS**

### **PFC100 Controllers**





Uniquely equipped with *e*!RUNTIME, the PFC100 Controller expands WAGO's line of next generation PLCs with extremely high performance processing in a space-saving design.

All versions of the controller feature two Ethernet ports, and – depending on the module – one DIP switch or one RS-232/-485 interface. To ensure a high level of security, SSL/TLS, SSH, VPN and Firewall are standard. The controller supports protocols such as MODBUS/TCP Client/Server or Ethernet/IP communications. The serial interface also supports MODBUS RTU as a client and server. A slot for microSD cards completes the package.

With an integrated web server and HTML5 visualization, the PFC100 complements the Web panel to be an easy-to-use operator interface.

More information: www.wago.com/us/pfc100

### **PFC200 Controllers**



The impressive PFC200 Controller features a high processing speed and a large selection of interfaces. The CANopen, PROFIBUS DP, MODBUS TCP/UPD/RTU and Ethernet/IP protocols provide flexible connection to fieldbus systems and external input/output devices. And multiple variants – including the extreme temperature range (XTR Series) – provide these features for virtually any application. The second generation of the PFC200 provides even greater performance. A powerful Cortex A8 processor and 512 MB of RAM ensure exceptionally high operating speeds. The integrated web server pairs with the Web panels for easy-to-implement operator interfaces.

More information: www.wago.com/us/pfc200

SSL/TLS, SSH, VPN and Firewall ensure a secure connection.

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