

HUMAN MACHINE INTERFACES

HM SERIES



HMx700 series



HMe series



HM500 series



HM series touch terminals ... more than just panels!

The developments in the current industrial revolution call for communication between human and machine in all areas. To ensure successful networking, the touch panel of the machine, which serves as a communication interface, is of vital importance. To allow people to use equipment and machines intuitively and correctly, it is vitally important that

processes and data are logically visualized on the display. Thanks to the web-server architecture of our HM series, users have extensive tools for controlling and monitoring the machine or equipment and can access it via computer, tablet, or smartphone.



■ HMx700 series – high-end

- › Multi touch
- › Capacitive glass touch panel
- › UV resistant, scratch resistant, resistant to chemicals
- › Three Ethernet ports
- › Display sizes 5", 7", 10.1", 15.6" and 21.5"



■ HMe series – economical

- › A top product in its class
- › Inexpensive
- › Cost-efficient
- › Reliable
- › Industrial grade



■ HM500 series – compact and robust

- › Innovative full-metal housing
- › Two Ethernet ports with integrated switch
- › Low power consumption
- › Expandable with different plug-in units

With the new HMx700 series, Panasonic completes its product portfolio and offers the full range of touch panels from an inexpensive version to a robust product and a high-end solution. Touch panels of the HM series have proven themselves

in a large variety of industries and applications. The use cases are as manifold as the applications and technologies.



■ HM series touch terminals

All terminals are equipped with Ethernet ports and support VNC technology. The web server architecture is based on current HTML5 web technology providing users with advanced control and remote monitoring from any browser, any device (smartphone, tablet, or computer). The ability to capture, store and share data in higher-level structures makes the HM series the perfect choice for integrating

systems across the entire enterprise.

The HM series supports Panasonic PLC, SVG graphics, Javascript, OPC UA Server / Client gateway, Modbus TCP (RTU), Ethernet/IP. This makes the HM series a perfect tool for IIoT implementation and Industry 4.0 in a controlled and safety-aware manner.

■ HM accessories

Product	Description	Part number
Communication cassette serial RS232 port	Additional communication cassette with serial RS232 port for AIHM5xx touch panels	AIHMPLCM03
Communication cassette serial RS485 port	Additional communication cassette with serial RS485 port for AIHM5xx touch panels	AIHMPLCM04
Communication cable RS232, COM port	Communication cable RS232 FP0R/FP-X/FPΣ (Sigma)/FP7 COM port (open wires) <-> HM series touch panel (9-pin Sub-D), 2m	AIHM8023220
Communication cable RS485, COM port	Communication cable RS232 FP0R/FP-X/FPΣ (Sigma)/FP7 COM port (open wires) <-> HM series touch panel (9-pin Sub-D), 2m	AIHM8048520
Communication cable RS232, TOOL port	Communication cable RS232 of the FP series TOOL port (mini DIN) <-> HM series touch panel (9-pin Sub-D), 2m	AIHM8123220

■ Ready for Industry 4.0 and IIoT

All panels work with OPC UA – one of the key communication protocols.



■ Programming software HMWin – simply the best

- › All touch panels from the HM series are easy and intuitive to program with the Panasonic software that you can download free of charge
- › Simple, intuitive interface
- › Project tree resource navigation
- › Data displayed in numeric format, bar graph, analog indicators and images
- › Multi-language support with import and export functions for texts
- › Data acquisition and display in line or bar graphs
- › Alarm management and event history
- › User group and password management
- › Audit Trail recipe management
- › Remote monitoring and control with Client-Server architecture based on Web technology (compatible with smartphones and tablets)
- › Powerful JavaScript engine
- › Large ready-to-use macro library
- › Reports printable on USB printer and as a PDF file
- › Advanced HMI objects: scheduler and event planning, rotating menus, RSS Feeds, IP camera input
- › On-line and off-line simulation



■ HMWin now enhanced with HM4web

HM4web is the most complete tool so far for creating full HTML5-based interfaces.



■ HMWin combobox widget

- › New widget, easier programming
- › Full-screen capability
- › Options for text, symbol, text + symbol
- › Support of gestures
- › Ideal for creating selection menus
- › Trend and scatter diagrams with support of gestures
- › Multilanguage
- › Javascript
- › Push data for improved performance on browsers
- › Supports multi-core platforms in browsers
- › Option to disable login requests
- › Possibility to require a user action on a selected alarm
- › Supports groups of alarms
- › Supports alarms from the PLC
- › Supports the project property "WebPageRequest"

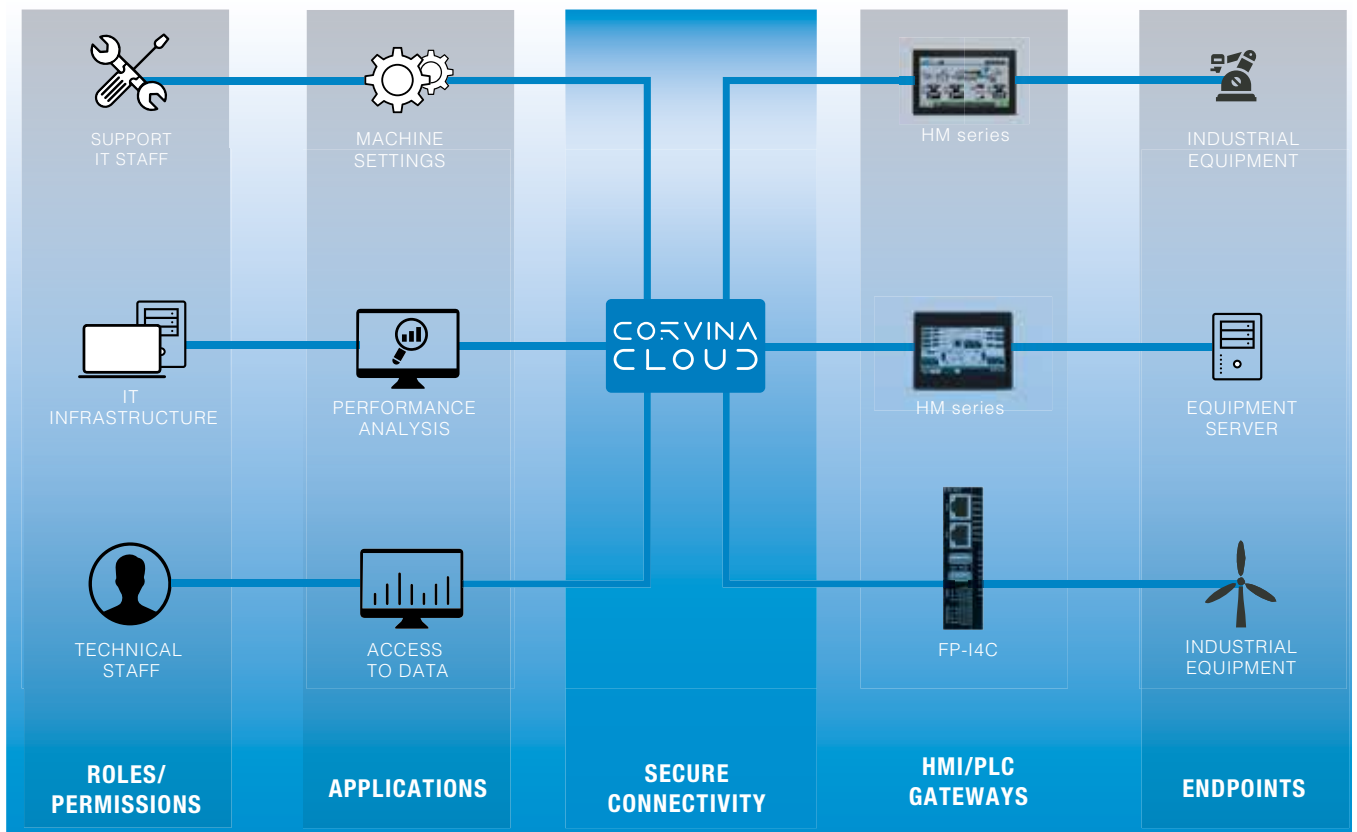
Cloud solution for the HM series

Corvina Cloud is a safe cloud solution based on OpenVPN and SSL and allows remote administration of industrial installations.

This way, you have a platform making the administration of your IIoT business easy.



How does Corvina Cloud work?



Roles & Applications

It is possible to define different roles with different user rights. Roles can be given access rights depending on the data needed and the application.

Secure Connectivity

In its core, Corvina Cloud is a high-performance server with the latest open technologies to manage data and control flows, thus acting as a Platform as a Service (PaaS).

Gateways & Endpoints

Our touch panels serve as gateways to the local network (HMe series, HM500 series, HMx700 series). They connect to a central server. All Panasonic PLCs, IP cameras, and other devices capable of connecting to the Internet can act as endpoints.



Part number	AIHM504	AIHM507	AIHM510	AIHM513	AIHMe04	AIHMe07	AIHMe10
Feature	HM504	HM507	HM510	HM513	HMe04	HMe07	HMe10
Display size	4.3" TFT 16:9	7" TFT 16:9	10.4" TFT	13.3" TFT 16:9	4.3" TFT 16:9	7" TFT 16:9	10.1" TFT 16:9
Resolution	480 x 272, WQVGA	800 x 480, WVGA	800 x 600, SVGA	1280 x 800, WXGA	480 x 272, WVGA	800 x 480, WVGA	1024 x 600, WVGA
Backlight	LED						
Brightness	150 cd/m ² typ.	300 cd/m ² typ.	300 cd/m ² typ.	300 cd/m ² typ.	200 cd/m ² typ.	200 cd/m ² typ.	200 cd/m ² typ.
Dimming	Yes						
Colors	64K						
Touchscreen	Analog resistive						
Portrait mode	Yes						
User Memory	128MB flash memory	128MB flash memory	256MB flash memory	256MB flash memory	2GB flash memory	4GB flash memory	4GB flash memory
Serial port (Universal)	RS232, RS485, RS422, software configurable						
Ethernet port	2x 10/100Mbit with integrated switch	2x 10/100Mbit with integrated switch	2x 10/100Mbit with integrated switch	2x 10/100Mbit with integrated switch	1x 10/100Mbit	1x 10/100Mbit	1x 10/100Mbit
USB port	1 host interface version 2.0	2 host interfaces (1x version 2.0, 1x version 2.0 and version 1.1)	2 host interfaces (1x version 2.0, 1x version 2.0 and version 1.1)	2 host interfaces (1x version 2.0, 1x version 2.0 and version 1.1)	1 host interface version 2.0	1 host interface version 2.0	1 host interface version 2.0
Vector graphics	Yes, supports SVG						
Dynamic objects	Yes						
TrueType fonts	Yes						
Alarms / alarm information	Yes						
Recipes	Yes						
Password	Yes						
Trends	Yes						
Multilanguage management	Yes						
Real-time clock	Yes, with battery	Yes, with battery	Yes, with battery	Yes, with battery	Yes, supercapacitor	Yes, supercapacitor	Yes, supercapacitor
Battery	Rechargeable lithium battery	Rechargeable lithium battery	Rechargeable lithium battery	Rechargeable lithium battery	No	No	No
Expansion slots	1 optional plugin	2 optional plugins	2 optional plugins	2 optional plugins	No	No	No
SD card slot	Yes	Yes	Yes	Yes	No	No	No
Voltage	24V DC (10 – 32V DC)	24V DC (10 – 32V DC)	24V DC (10 – 32V DC)	24V DC (10 – 32V DC)	24V DC (18 – 32V DC)	24V DC (18 – 32V DC)	24V DC (18 – 32V DC)
Max. current consumption (typ.)	0.55A at 24VDC (max.)	0.7A at 24V DC (max.)	1A at 24V DC (max.)	1.2A at 24V DC (max.)	0.25A at 24V DC (max.)	0.3A at 24VDC (max.)	0.38A at 24VDC (max.)
Operating temperature	0° to 50°C						
Storage temperature	-20° to +70°C						
Operating and storage humidity	5 to 85%, RH non-condensing						
Mass	Approx. 1.0kg	Approx. 1.0kg	Approx. 2.1kg	Approx. 2.8kg	Approx. 0.4kg	Approx. 0.6kg	Approx. 1.0kg
Front panel (L x H)	147 x 107mm	187 x 147mm	287 x 232mm	336 x 267mm	147 x 107mm	187 x 147mm	282 x 197mm
Panel cutout (A x B)	136 x 96mm	176 x 136mm	276 x 221mm	326 x 256mm	136 x 96mm	176 x 136mm	271 x 186mm
Depth (D + T)	56 + 4mm	47 + 4mm	56 + 4mm	56 + 4mm	29 + 5mm	29 + 5mm	29 + 6mm
Degree of protection (front)	IP66						
Degree of protection (back)	Conforms to IP20						
Certification	CE, UL						
Guarantee	5 years				3 years		



Part number	AIHMX705	AIHMX707	AIHMX710	AIHMX715	AIHMX721
Feature	HMx705	HMx707	HMx710	HMx715	HMx721
Display size	5" TFT 16:9	7" TFT 16:9	10.1" TFT 16:9	15.6" TFT 16:9	21.5" TFT 16:9
Resolution	800 x 480, WVGA	800 x 480, WVGA	1280 x 800, WXGA	1366 x 768, HD	1920 x 1080, Full HD
Backlight	LED				
Brightness	300 cd/m ² typ.	500 cd/m ² typ.		400 cd/m ² typ.	300 cd/m ² typ
Dimming	Yes				
Colors	64K	16M			
Touchscreen	Capacitive glass, multi-touch				
Portrait mode	Yes				
User Memory	4GB Flash memory			8GB Flash memory	
Serial port (Universal)	RS232, RS485, RS422, software configurable				
Ethernet port	2x 10/100Mbit	3x 10/100Mbit			
USB port	1 (host V2.0, max. 500mA)	2 (host V2.0, max. 500mA)			
Vector graphics	Yes, supports SVG				
Dynamic objects	Yes				
TrueType fonts	Yes				
Alarms / alarm information	Yes				
Recipes	Yes				
Password	Yes				
Trends	Yes				
Multilanguage management	Yes				
Real-time clock	Yes, with battery				
Battery	Rechargeable lithium battery				
Expansion slots	1 optional plugin	2 optional plugins	2 optional plugins	2 optional plugins	No
SD card slot	Yes				
Voltage	24V DC (10 – 32V DC)				
Max. current consumption (typ.)	0.6A at 24V DC (max.)	0.7A at 24V DC (max.)	1A at 24V DC (max.)	1.2A at 24V DC (max.)	1.7A at 24V DC (max.)
Operating temperature	-20° to +60 °C (vertical installation) Units and devices connected via USB may limit the operating temperature to +50°C max.				
Storage temperature	-20° to +70°C				
Operating and storage humidity	5 to 85%, RH non-condensing				
Mass	Approx. 1.3kg	Approx. 1.5kg	Approx. 2.5kg	Approx. 4.1kg	Approx. 6.1kg
Front panel (L x H)	147x107mm	187 x 147mm	282 x 197mm	422 x 267mm	552 x 347mm
Panel cutout (A x B)	136 x 96mm	176 x 13mm	271 x 18mm	411 x 256mm	541 x 336mm
Depth (D + T)	52 + 8mm	47 + 8mm	56 + 8mm	56 + 8mm	56 + 8.5mm
Degree of protection (front)	IP66				
Degree of protection (back)	Conforms to IP20				
Certification	CE, UL				
Guarantee	5 years				



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