

# Human Machine Interface

HM series and GT series





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# APPLICATIONS



## Application examples:



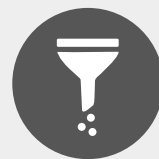
**Machine automation**



**Machine builders**



**Packaging**



**Liquid dispensers**



**Positioning systems**



**Metal processing**

## Panasonic HMIs - more than just touch terminals

The current industrial revolution requires seamless communication between man and machine. Of central importance for successful networking is the machine's operating device, which serves as the communication interface.

The logical visualization of the processes and data on the display is essential for the system's intuitive and error-free operation and the production itself.

Thanks to the webserver architecture of the latest HMI from Panasonic Industry, the operator has a wide range of options for controlling and remote monitoring of the machines and can access the machine from a PC, tablet, or smartphone.

### Quality that you can see

Our high-performance displays deliver brilliant images. Individually adjustable parameters such as brightness and contrast guarantee maximum readability.

In addition, all LCDs offer a wide viewing angle. The compact housings and the extremely resistant front foils are evidence of robust design.

All touch terminals comply with the relevant international standards and guidelines. As with all Panasonic products, the touch terminals are subjected to extreme tests that far exceed the usual requirements. Carefully selected components and materials guarantee a long life cycle.



### Service

Panasonic Industry Europe's comprehensive service includes an expert hotline, workshops and on-site service to ensure the reliable and effective use of our touch panels. In addition to its wide-ranging product portfolio of touch panels, Panasonic Industry Europe also offers sensors, laser markers, programmable logic controllers, drive technology, energy management systems, ionisers, automation components and many other products and complete solutions.



# HM SERIES

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.



## HM500 series – smart & innovative

- > PoE (Power over Ethernet)
- > Multiude of installation topologies
- > Wi-Fi connection
- > Internal temperature sensor

## HMx700 series – high-end multi touch

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

## HMe series – economical

- > A top product in its class
- > Inexpensive
- > Configurable serial interface
- > Reliable
- > Industrial grade

## HM500 series – compact & robust

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



### PoE (HM5700)

#### Power over Ethernet

- ✓ Maximum connectivity thanks to standard CAT5 wiring
- ✓ Only one cable needed (power and Ethernet)
- ✓ Up to 100m distance from source



### MQTT (ALL MODELS)

#### Message Queuing Telemetry Transport

- ✓ Designed for connections with remote locations
- ✓ Suitable for limited network bandwidth



### FANLESS (HM5 & HMx)

#### Passive cooling

- ✓ Protection against dust, oil and splash water
- ✓ Low maintenance
- ✓ Noiseless



### OPC UA (ALL MODELS)

#### Standardized communication protocol

- ✓ Platform-independent exchange of machine data



### WIDE VARIATION OF MOUNTINGS (HM5700)

#### VESA, wall, tube, gooseneck, table stand

- ✓ High flexibility for installation



### WEB SERVER ARCHITECTURE (ALL MODELS)

#### Based on the current HTML5 web technology

#### Supports VNC technology

- ✓ Offers many possibilities of remote monitoring and control



### WI-FI (HM5700 SERIES EXCEPT HM5705)

#### Wireless Local Area Network

- ✓ Ease of installation and use
- ✓ Offer wireless access to their employees and customers
- ✓ Connection to the wider Internet



### FULL IP67 DEGREE OF PROTECTION (HM5700)

#### The complete encapsulation enables the HMI to be installed under difficult environmental conditions

- ✓ Ideal for mounting with a swivel arm directly to the machine.
- ✓ Cost-efficient



### MULTI-TOUCH FUNCTION (HM5 & HMx)

#### Logical visualization of processes and data

- ✓ Avoidance of incorrect operation due to intuitive operation of the system



### USER-FRIENDLY

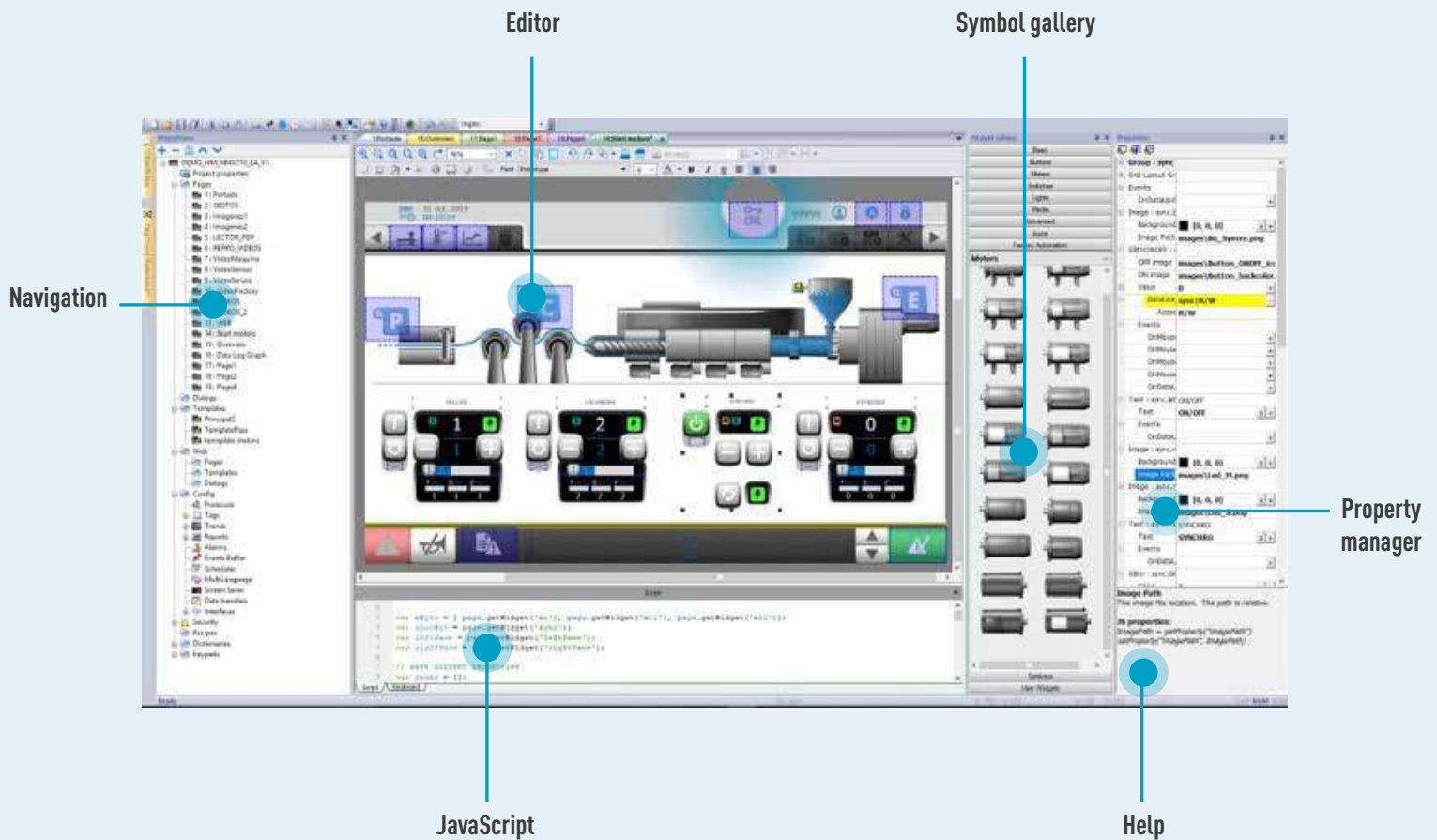
- Play videos
- Read PDFs
- Zoom
- Extremely fast writing
- Operation with protective gloves

- ✓ High user ergonomics and comfort in daily work

# HMWIN STUDIO

## Configuration software:

Same tool for all HM series touch panels (and for FP-I4C)



- > Multi-protocol capability
- > Cloud-ready
- > HTML5 web technology

- > VNC technology  
(Virtual Network Computing)
- > CFR21 Part 11; FDA Compliance

- > Powerful web terminal with industry standard web engine
- > OPC UA standard

- > Simple and intuitive software interface
- > OS Linux RT

# HMS700 SERIES

## HMs700 series– smart & innovative



**NEW!**

### Features

- > Multi touch, projected capacitive touch screen (PCAP)
- > Display sizes: 5", 7", 10.1", 15.6", and 21.5"
- > Real-time clock
- > Dimming to 0%
- > Extended operation temperature range: -20 to +55 degree Celsius
- > 1 x PoE (Power over Ethernet)
- > 1 x optional USB (via special cable)

Model	HMs705	HMs707	HMs710	HMs715	HMs721
Display size	5" TFT	7" TFT	10.1" TFT	15.6" TFT	21.5" TFT
Resolution	800 x 480, PCAP	1024 x 600, PCAP	1280 x 800, PCAP	1366 x 768, PCAP	1920 x 1080, PCAP
Sensors	Temperature, 3-axis accelerometer				
Wi-Fi	Not available	IEEE 802.11a/b/g			
Brightness	300cd/m <sup>2</sup> typ.	400cd/m <sup>2</sup> typ.			
Touchscreen	Projective capacitive touch glass, multi-touch				
Ethernet	10/100 PoE				
USB	1 (host V2.0, max. 500mA, available with special cable)				
Protection Class	IP67 (requires appropriate accessories and cables)				
CPU	ARM Cortex-A9 dual core - 800MHz			ARM Cortex-A9 quad core - 800MHz	
Operating system	Linux RT				
RAM / FLASH / FRAM	1GB / 4GB / 64KB			2GB / 8GB / 64KB	

**Applications:** The wide variation of mountings offers a high flexibility for installation



Tube mounting

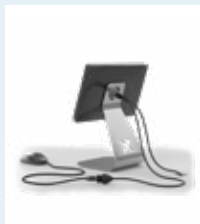
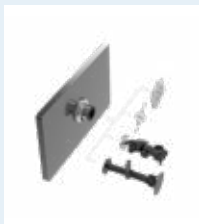
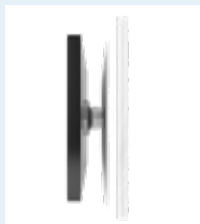


Table stand for mounting



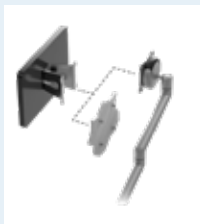
Multi-use mounting



Wall mounting



Gooseneck mounting



VESA mounting



# HMX700 SERIES

## HMX700 – high-end series with multi-touch functions

The series combines the best of two worlds: The HMX700 panel is a high-end touch panel for demanding IoT applications that, despite its wide range of features, does not compromise on durability.



### Features

- > Capacitive glass touch panel
- > Display sizes: 5", 7", 10.1", 15.6", and 21.5"
- > Fast start < 10 seconds
- > UV resistant
- > Scratch resistant
- > Resistant to many chemicals
- > Three Ethernet ports
- > Multi-protocol capability
- > Gateway to Corvina Cloud
- > OPC UA standard
- > VNC technology
- > Extended operation temperature range: -20 to +60 degree Celsius

Model	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, PCAP	800 x 480, PCAP	1280 x 800, PCAP	1366 x 768, PCAP	1920 x 1080, PCAP
Backlight	LED				
Brightness	300 cd/m <sup>2</sup> typ.	500 cd/m <sup>2</sup> typ.		400 cd/m <sup>2</sup> typ.	300 cd/m <sup>2</sup> typ
Dimming	Yes				
Colors	64K	16M			
Touchscreen	Capacitive glass, multi-touch				
Portrait mode	Yes				
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)			
CPU	ARM Cortex-A8 1GHz	ARM Cortex-A9 dual core 800MHz		ARM Cortex-A9 quad core 800MHz	
RAM / flash memory	512MB / 4GB	1GB / 4GB		2GB / 8GB	

# HME SERIES

## HMe series – economical

The HMe series, the ideal choice for all applications – everywhere. The HMe touch terminals, where e stands for economy version, work with our powerful HMWin software. Economy version means that the hardware has been stripped down to the essential components, making the touch panel a leader in its class.



### Features

- > Resistive touch terminal
- > Display sizes: 4.3", 7", 10.1"
- > Wide color display for all models
- > CE, cULus
- > Powerful and intuitive programming with HMWin software
- > 3 years warranty
- > 1 Ethernet port
- > Software-configurable serial port: RS232C/RS422/RS485
- > 1 USB port with host interface version 2.0
- > Operation temperature range: 0 to +50 degree Celsius

Model	HMe04	HMe07	HMe10
Display size	4.3" TFT 16:9	7" TFT 16:9	10.1" TFT 16:9
Resolution	480 x 272, WVGA	800 x 480, WVGA	1024 x 600, WVGA
Backlight	LED		
Brightness	200 cd/m <sup>2</sup> typical		
Dimming	Yes		
Colors	64K		
Touchscreen	Analog resistive		
Portrait mode	Yes		
Serial port (Universal)	RS232, RS485, RS422, software configurable		
Ethernet port	1x 10/100Mbit		
USB port	1 host interface V2.0		
CPU	ARM Cortex A8 1GHz		
User memory	2GB flash memory	4GB flash memory	

## HM500 SERIES

### HM500 – compact & robust

The HM500 series combines state-of-the-art features and top performance with an outstanding design in an all-metal housing. The range consists of four models in sizes from 4.3", 7", 10.4", and 13.4" TFT color display with LED backlight. All models can be installed in a horizontal or vertical position.



#### Features

- > Resistive touch terminal
- > Display sizes: 5", 7", 10.1", and 13.4"
- > LED backlight
- > Coating on all electronic boards
- > 2 expansion slots for plug-ins
- > 128MB flash user memory
- > Gateway to Corvina Cloud
- > Two Ethernet ports
- > Software-configurable serial port: RS232C/RS422/RS485
- > SD card slot
- > 2 USB ports with host interface (1 x host 2.0 and 1 x 2.0 or 1.1)
- > IP66 degree of protection (front)

Model	HM504	HM507	HM510	HM513
Display size	4.3" TFT 16:9	7" TFT 16:9	10"4 TFT	13"3 TFT 16:9
Resolution	480x272, WQVGA	800x480, WVGA	800x600, SVGA	1280x800, WXGA
Backlight	LED			
Brightness	150 cd/m <sup>2</sup> typ.	300 cd/m <sup>2</sup> typ.		
Dimming	Yes			
Colors	64K			
Touchscreen	Analog resistive			
Portrait mode	Yes			
User memory	128MB flash		256MB flash	
Serial	RS232, RS485, RS422, software configurable			
Ethernet	2 x 10/100Mbit with integrated switch			
USB	1 host interface V2.0	2 host interfaces(1 x V2.0, 1 x V2.0 and V1.1)		
Approvals	CE, cULus Class I, Div. 2			
Warranty	5 years			

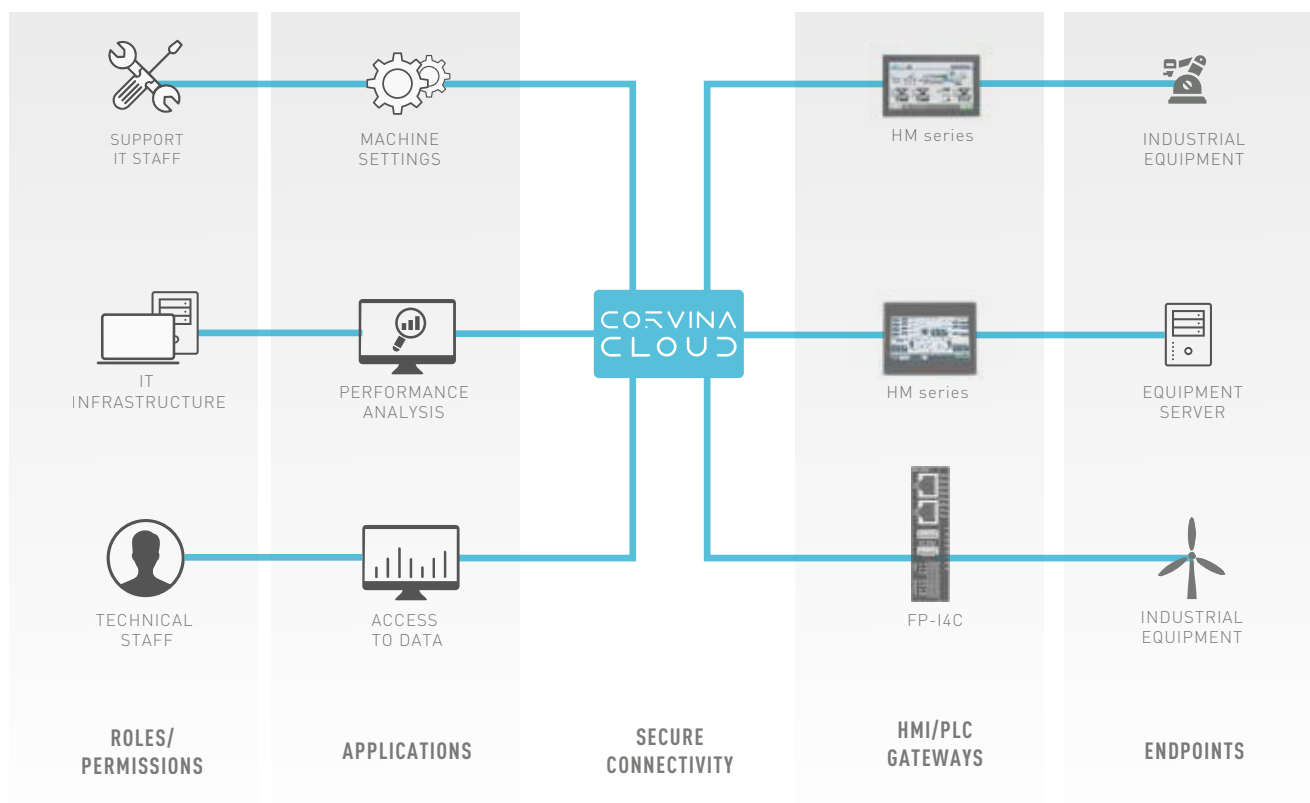
# SOFTWARE

## 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, HMs700 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.

## GT SERIES



### GT707

#### progressing towards a new dimension

The extremely user-friendly touch panel provides more display space while maintaining a slim design.

#### > TFT color screen for excellent life-like images

The comfortable widescreen LCD (800 x 480 pixels) displays images in high contrast without distracting dots or lines.

#### > Status monitor

The GT707 offers an easy way to check the status of all connected devices at one glance.



### GT703/GT704

#### with built-in Ethernet port

Use the GT703/704 series to display and simultaneous log data with multiple PLCs from the FP or FP7 series in a network. Data from PLC programs and registers can be saved to the GT's internal memory or on SD memory cards.

#### > Edit screens & PLC programs via Ethernet

Another new feature is the possibility to edit data on multiple GT touch terminals or change PLC programs via Ethernet communication.

#### > Easy data acquisition via Ethernet

With a dedicated software tool it is possible to read data from the GT touch terminals and their SD memory cards. Information from multiple touch terminals can be transferred to a host PC via Ethernet.



### GT03-E/GT32-E

#### tough touch terminal for applications under rough conditions

An HMI optimally suited for applications under difficult temperature conditions.

The touch terminal can be used outdoors within a temperature range of -20°C to +60°C. The legibility of complex displays is guaranteed, even in direct sunlight. It is well suited to the demands placed on automation products, especially for automatic washing machines, coin-operated parking or food filling machines.



### GT02/05/12 –

#### compact panels with real-time clock

The brilliant displays provide clear and vivid pictures and are mounted in a body with an IP67 degree of protection. The touch terminals can be installed both horizontally and vertically.



### GT32-R

#### a clear and beautiful display

A clearly readable display thanks to a high-definition, long-life LED backlight. The touch terminal comes with a USB interface and an SD card slot as standard equipment.

# HM SERIES - TECHNICAL DATA

## HM5700

Description	Part number
HM5705 touch terminal 5" TFT widescreen, multi touch, capacitive glass, -20° to +55°C, 16M colors, 800x480 pixels, 1 x USB host, 1 x LAN 10/100 PoE	AIHM5705
HM5705 touch terminal 7" TFT widescreen, multi touch, capacitive glass, -20° to +55°C, 16M colors, 1024x600 pixels, 1 x USB host, 1 x LAN 10/100 PoE, Wi-Fi	AIHM5707
HM5710 touch terminal 10.1" TFT widescreen, multi touch, capacitive glass, -20° to +55°C, 16M colors, 1280x800 pixels, 1 x USB host, 1 x LAN 10/100 PoE, Wi-Fi	AIHM5710
HM5715 touch terminal 15.6" TFT widescreen, multi touch, capacitive glass, -20° to +55°C, 16M colors, 1366x768 pixels, 1 x USB host, 1 x LAN 10/100 PoE, Wi-Fi	AIHM5715
HM5721 touch terminal 21.5" TFT widescreen, multi touch, capacitive glass, -20° to +55°C, 16M colors, 1920x1080 pixels, 1 x USB host, 1 x LAN 10/100 PoE, Wi-Fi	AIHM5721

## HMx700

Description	Part number
HMx705 touch terminal 5" TFT widescreen, multi touch, capacitive glass, -20° to +60°C, 64K colors, 800x480 pixels, WVGA, SD card slot, 1 x RS232/485, 1 x USB host, 2 x LAN 10/100	AIHMx705
HMx707 touch terminal 7" TFT widescreen, multi touch, capacitive glass, -20° to +60°C, 16M colors, 800x480 pixels, WVGA, SD card slot, 1 x RS232/485, 2 x USB host, 3 x LAN 10/100	AIHMx707
HMx710 touch terminal 10.1" TFT widescreen, multi touch, capacitive glass, -20° to +60°C, 16M colors, 1280x800 pixels, WXGA, SD card slot, 1 x RS232/485, 2 x USB host, 3 x LAN 10/100	AIHMx710
HMx715 touch terminal 15.6" TFT widescreen, multi touch, capacitive glass, -20° to +60°C, 16M colors, 1366x768 pixels, HD SD card slot, 1 x RS232/485, 2 x USB host, 3 x LAN 10/100	AIHMx715
HMx721 touch terminal 21.5" TFT widescreen, multi touch, capacitive glass, -20° to +60°C, 16M colors, 1920x1080 pixels, full HD, SD card slot, 1 x RS232/485, 2 x USB host, 3 x LAN 10/100	AIHMx721

## HMe

Description	Part number
HMe04 touch terminal 4.3" 16:9 LED widescreen, 64K colors, 480x272 pixels, 1 x RS232/422/485, 1 x USB host, 1 x LAN 10/100	AIHME04
HMe07 touch terminal 7" 16:9 LED widescreen, 64K colors, 800x480 pixels, 1 x RS232/422/485, 1 x USB host, 1 x LAN 10/100	AIHME07
HMe10 touch terminal 10.1" 16:9 LED widescreen, 64K colors, 1024x600 pixels, 1 x RS232/422/485, 1 x USB host, 1 x LAN 10/100	AIHME10

## HM500

Description	Part number
HM504 touch terminal 4.3" TFT widescreen, 64K colors, 480x272 pixels, WQVGA, SD card slot, 1 x RS232/485, 1 x USB host, 2 x LAN 10/100 with switch	AIHM504
HM507 touch terminal 7" TFT widescreen, 64K colors, 800x480 pixels, WVGA, SD card slot, 1 x RS232/485, 2 x USB host, 2 x LAN 10/100 with switch	AIHM507
HM510 touch terminal 10.4" TFT, 64K colors, 800x600 pixels, SVGA, SD card slot, 1 x RS232/485, 2 x USB host, 2 x LAN 10/100 with switch	AIHM510
HM513 touch terminal 13.3" TFT widescreen, 64K colors, 1280x800 pixels, WXGA, SD card slot, 1 x RS232/485, 2 x USB host, 2 x LAN 10/100 with switch	AIHM513

## HM series accessories

Description	Part number
Communication cable RS232 FP0R/FP-X/FPΣ [Sigma]/FP7 COM Port (open wires) <-> HM series touch terminals (9-pin Sub-D), 2m	AIHM8023220
Communication cable RS485 FP0R/FP-X/FPΣ [Sigma]/FP7 COM Port (open wires) <-> HM series touch terminals (9-pin Sub-D), 2m	AIHM8048520
Communication cable RS232 FP PLC TOOL port (mini DIN) <-> HM series touch terminals (9-pin Sub-D), 2m	AIHM8123220
Communication cable RS232 FP PLC TOOL port (mini DIN) <-> HM series touch terminals (9-pin Sub-D), 4.0m	AIHM812324
License for a secure VPN connection to the Corvina Cloud	AFPSCLOUDENABLER
Additional communication cassette with serial RS232 port for AIHM panel	AIHMPLCM03
Additional communication cassette with serial RS485 port for AIHM panel	AIHMPLCM04

## GT SERIES - TECHNICAL DATA

### GT707 / GT703/704

Description	Part number
Touch terminal GT707, 7", TFT LCD, 65536 colors, IP 65, 800x480 pixels, RS232 9-pin Sub-D + USB mini-B (prog.), 24V DC, SD/SDHC card slot, black frame	AIG707WCL1G2
Touch terminal GT703 3.8", 64 gray scales, 480x192 pixels, Ethernet + RS232 + USB mini-B (prog.), 24V DC, black frame, LED backlight: green, red, orange, SD card slot	AIG703WGN1B2
Touch terminal GT703 3.8", 64 gray scales, 480x192 pixels, Ethernet + RS232 + USB mini-B (prog.), 5V DC (power cannot be supplied from a PLC's TOOL port), black frame, LED backlight: green, red, orange, SD card slot	AIG703WGN1B5

### GT03-E/32-E

Description	Part number
Touch terminal GT03M-E 3.5", IP67, -20°C to + 60°C, UV resistant, anti-glare layer, monochrome, 320x240 pixels, RS232 + USB Mini B (prog.), 24V DC, silver frame	AIG03MQ03DE
Touch terminal GT03T-E 3.5", IP67, -20°C to + 60°C, UV resistant, anti-glare layer, 4096 colors, 320x240 pixels, RS232 + USB Mini B (prog.), 24V DC, SD/SDHC card slot, silver frame	AIG03TQ13DE
Touch terminal GT32M-E 5.7", IP67, -20°C to + 60°C, UV resistant, anti-glare layer, monochrome, 320x240 pixels, RS232 + USB B (prog.), 24V DC, SD/SDHC card slot, silver frame	AIG32MQ03DE
Touch terminal GT32T-E 5.7", IP67, -20°C to + 60°C, UV resistant, anti-glare layer, 4096 colors, 320x240 pixels, RS232 + USB B (prog.), 24V DC, SD/SDHC card slot, silver frame	AIG32TQ03DE

### GT02

Description	Part number
Touch terminal GT02 3.8", monochrome, 240x96 pixels, RS232 + USB mini-B (prog.), 5V DC, black frame, LED backlight: red, orange, green, no SD card slot	AIG02GQ02D
Touch terminal GT02 3.8", monochrome, 240x96 pixels, RS232 + USB mini-B (prog.), 24V DC, black frame, LED backlight: red, orange, green, no SD card slot	AIG02GQ12D
Touch terminal GT02 3.8", monochrome, 240x96 pixels, RS422/485 + USB mini-B (prog.), 24V DC, black frame, LED backlight: red, orange, green, no SD card slot	AIG02GQ14D
Touch terminal GT02 3.8", monochrome, 240x96 pixels, RS232 + USB mini-B (prog.), 24V DC, SD/SDHC card slot, real-time clock, black frame, LED backlight: red, orange, green	AIG02GQ22D
Touch terminal GT02 3.8", monochrome, 240x96 pixels, RS232 + USB mini-B (prog.), 5V DC, silver frame, LED backlight: white, red, pink, no SD card slot	AIG02MQ03D
Touch terminal GT02 3.8", monochrome, 240x96 pixels, RS232 + USB mini-B (prog.), 24V DC, silver frame, LED backlight: white, red, pink, no SD card slot	AIG02MQ13D
Touch terminal GT02 3.8", monochrome, 240x96 pixels, RS232 + USB mini-B (prog.), 24V DC, SD/SDHC card slot, real-time clock, silver frame, LED backlight: white, red, pink	AIG02MQ23D

### GT05

Description	Part number
Touch terminal GT05G 3.5", monochrome, 320x240 pixels, RS232 + USB B (prog), 24V DC, SD/SDHC card slot, black frame, backlight: red, orange, green	AIG05GQ02D
Touch terminal GT05M 3.5", monochrome, 320x240 pixels, RS232 + USB B (prog), 24V DC, SD/SDHC card slot, black frame, backlight: white, red, pink	AIG05MQ02D
Touch terminal GT05S 3.5", 4096 colors, 320x240 pixels, RS232 + USB B (prog), 24V DC, SD/SDHC card slot, black frame	AIG05SQ02D
Touch terminal GT05S 3.5", 4096 colors, 320x240 pixels, RS232 + USB B (prog), 24V DC, SD/SDHC card slot, silver frame	AIG05SQ03D
Touch terminal GT05M 3.5", monochrome, 320x240 pixels, RS232 + USB B (prog), 24V DC, SD/SDHC card slot, silver frame, backlight: white, red, pink	AIG05MQ03D

### GT12

Description	Part number
Touch terminal GT12 4.6", 8 gray scales, 320x120 pixels, RS232 + USB mini-B (prog.), 24V DC, SD/SDHC card slot, black frame, backlight: red, orange, green	AIG12GQ12D

### GT series accessories

Description	Part number
Connection cable for GT01/GT02, 5V types to the TOOL port of PLCs from the FP series, 2m	AIGT8142J
Connection cable FP0/FP-X/FPΣ (Sigma)/FP2/FP2SH TOOL port (L type) <-> FPWEB2/GT-RS232 (single wires), 2m	AIGT8192D
Mini USB programming cable, USB A to 5-pin mini USB, 1.8m	CABMINIUSB5D
Programming software for the GT series GTWIN Ver. 3	AIGSGT7EN



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▶ <b>Germany</b>	<b>Panasonic Electric Works Europe AG</b>	Caroline-Herschel-Strasse 100, 85521 Ottobrunn, Tel. +49 89 45354-1000, Fax +49 89 45354-2111, <a href="http://www.panasonic-electric-works.de">www.panasonic-electric-works.de</a>
▶ <b>Hungary</b>	<b>Panasonic Electric Works Europe AG</b>	Magyarországi Fióktelepe, 1117 Budapest, Aliz utca 4, Tel. +43 (0) 2236 26846 -25, Fax +43 (0) 2236 46133 <a href="http://www.panasonic-electric-works.hu">www.panasonic-electric-works.hu</a>
▶ <b>Ireland</b>	<b>Panasonic Electric Works UK Ltd.</b>	Irish Branch Office, Dublin, Tel. +353 (0) 14600969, Fax +353 (0) 14601131, <a href="http://www.panasonic-electric-works.co.uk">www.panasonic-electric-works.co.uk</a>
▶ <b>Italy</b>	<b>Panasonic Industry Italia srl</b>	Via del Commercio 3-5 (Z.I. Ferlina), 37012 Bussolengo (VR), Tel. +39 0456752711, Fax +39 0456700444, <a href="http://www.panasonic-electric-works.it">www.panasonic-electric-works.it</a>
▶ <b>Nordic Countries</b>	<b>Panasonic Electric Works Europe AG</b>	Filial Nordic, Knarrarnäsgatan 15, 164 40 Kista, Sweden, Tel. +46 859476680, Fax +46 859476690, <a href="http://www.panasonic-electric-works.se">www.panasonic-electric-works.se</a>
	<b>Panasonic Fire &amp; Security Europe AB</b>	Jungmansgatan 12, 21119 Malmö, Tel. +46 40 697 7000, Fax +46 40 697 7099, <a href="http://www.panasonic-fire-security.com">www.panasonic-fire-security.com</a>
▶ <b>Poland</b>	<b>Panasonic Industry Poland sp. z o.o.</b>	Ul. Dowborczyków 25, 90-019 Łódź, Polska, Tel. +48 42 2309633, <a href="http://www.panasonic-electric-works.pl">www.panasonic-electric-works.pl</a>
▶ <b>Spain</b>	<b>Panasonic Industry Iberia S.A.</b>	Barajas Park, San Severo 20, 28042 Madrid, Tel. +34 913293875, Fax +34 913292976, <a href="http://www.panasonic-electric-works.es">www.panasonic-electric-works.es</a>
▶ <b>Switzerland</b>	<b>Panasonic Industry Switzerland AG</b>	Grundstrasse 8, 6343 Rotkreuz, Tel. +41 (0) 41 7997050, Fax +41 (0) 41 7997055, <a href="http://www.panasonic-electric-works.ch">www.panasonic-electric-works.ch</a>
▶ <b>United Kingdom</b>	<b>Panasonic Electric Works UK Ltd.</b>	Sunrise Parkway, Linford Wood, Milton Keynes, MK14 6 LF, Tel. +44 (0) 1908 231555, Fax +44 (0) 1908 231599, <a href="http://www.panasonic-electric-works.co.uk">www.panasonic-electric-works.co.uk</a>
North & South America		
▶ <b>USA</b>	<b>Panasonic Industrial Devices Sales Company of America</b>	Two Riverfront Plaza, 7th Floor, Newark, NJ 07102-5490, Tel. 1-8003-442-112, <a href="http://www.pewa.panasonic.com">www.pewa.panasonic.com</a>
Asia Pacific/China/Japan		
▶ <b>China</b>	<b>Panasonic Electric Works Sales (China) Co. Ltd.</b>	Tower C 3rd Floor, Office Park, NO.5 Jinghua South Street, Chaoyang District, Beijing 100020, Tel. +86-10-5925-5988, Fax +86-10-5925-5980
▶ <b>Hong Kong</b>	<b>Panasonic Industrial Devices Sales (HK) Co., Ltd.</b>	Suite 301, 3/F, Chinachem Golden Plaza, 77 Mody Road, TST East, Kowloon, Hong Kong, Tel. +852-2529-3956, Fax +852-2528-6991
▶ <b>Japan</b>	<b>Panasonic Corporation</b>	1006, Oaza Kadoma, Kadoma-shi, Osaka 571-8501, Japan, Tel. +81-6-6908-1121, <a href="http://www.panasonic.net">www.panasonic.net</a>
▶ <b>Singapore</b>	<b>Panasonic Industrial Devices Automation Controls Sales Asia Pacific</b>	No.3 Bedok South Road, Singapore 469269, Tel. +65-6299-9181, Fax +65-6390-3953