



Industrial Computer MELIPC Series MI3000

# **MELIPC** *M***I**3000

2017

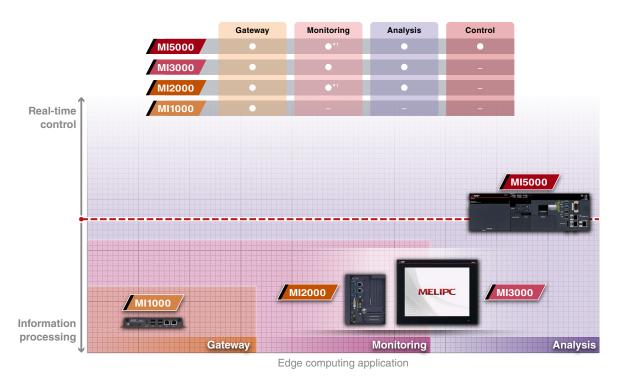
MELIPC

Give a shape to your ideas





The MELIPC realizes "real-time control" for device control and "Edge computing" enabling data collection/analysis in the middle level between the IT system and shop floor. A wide range of products from a high-end model supporting CC-Link IE Field Network capable of high performance processing and high-speed communications to simple and compact range models are available. The MELIPC corresponds with requirements such as real-time control, preventative maintenance, and quality improvement on the shop floor, contributing to productivity enhancement through utilization of production data.



\*1. Can be displayed on an external monitor.



## MI5000

Vindows®	VxWorks <sup>®</sup>	
dgecross	Data Collector	MI Configurator



#### Windows® and VxWorks® pre-installed

The module can run two operating systems at the same time, VxWorks<sup>®</sup> with deterministic performance for device control and data collection and Windows<sup>®</sup> for displaying analysis results of collected data, allowing superior processing according to OS. This feature allows one module to realize device control and information processing which were previously managed using a computer and dedicated device, reducing system configuration cost and space for devices.

#### CC-Link IE Field Network realizes highly accurate device control

Control data and production data of devices can be communicated at 1 ms via CC-Link IE Field Network, realizing highly accurate device control and high-speed production data collection. The module is equipped with CC-Link IE Field Network port and CC-Link IE Field Network Basic port which enable easy connection with compatible products just by setting.



#### Display and operate collected data MI3000

Large screen and high resolution LCD panel is equipped as standard for data display and touch operation. Lighttouch operation is realized with a PCAP touch panel that is widely used for smartphones and tablet devices. The touch panel with high transmittance offers clear and high visibility display. In addition, pre-installed software GT SoftGOT2000\*1 enables the same monitoring functions as the GOT2000 Series.

\*1. GT SoftGOT2000 license key (for USB port) (sold separately) is not required.

#### Data analysis and large volume data storage MI3000 MI2000

Intel<sup>®</sup> Core<sup>™</sup> i3 CPU realizes simple analysis/diagnosis/monitoring of collected data, contributing to quality improvement. Equipped with 2.5-inch HDD/SSD slot<sup>\*2</sup> and PCI Express<sup>®</sup>/PCI slot<sup>\*3</sup>, a large volume of data can be stored and functions can be extended.

\*2. The 2.5-inch HDD/SSD slot on MI2000 only.

\*3. Only PCI Express® on MI3000.

#### Compact size realizes computer functions

Energy saving Intel<sup>®</sup> Atom<sup>™</sup> E3826 in a compact 26-mm-tall module enables computer functions. Installation in the existing facility is easy as it requires minimal space, contributing to network connection of facilities.

# Start IoT solutions with MI3000 by connecting shop floors with IoT



#### **Pre-installed software**

Edgecross Basic Software
 SLMP Data Collector

GT SoftGOT2000

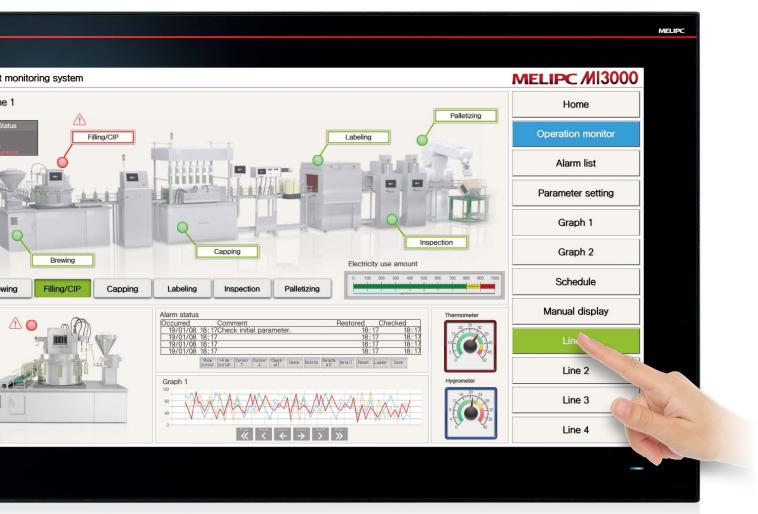
Smart monitoring s	ystem			MELIPC M	13000
. • • M . •	_	Current value	Unit	Setting value	PR.No
	Select axis	Rewind (0)	-	1 Rewind (0)	1399
	Gear ratio numerator (motor side)	1	-	1	1420
	Gear ratio denominator (slave side)	5	-	5	1421
	Motor rated current	9.60	A	10.50	9
Motor tuning	Motor type	03: Mitsubishi standard/high- efficiency (SF-JR, SF-TH), others, other manufacturer's standard	-	03: Mitsubishi standard/high- efficiency (SF-JR, SF-TH), others, other manufacturer's standard	71
Pr96 Tuning Tuning	Motor capacity	2.20		2.20	80
without rotation with rotation	Motor poles	4	Pole	4	81
1 101	Motor rated voltage	200.0		200.0	83
TUNE 60 Execute	Motor rated frequency	60.00	Hz	60.00	84
	PLG direction	CW (0)		9 cw (0)	359
Monitor	PLG pulses	1024	Pulse	1024	369
Configuration 💭	Select disconnection detection	Disabled (0)		9 Disabled (0)	376
Reference	Encoder type	Differential		9 Differential	
HOME	Graph_01 Graph_02	Alarm	story	Manual	Internet
			-		
					S.E

## 15" XGA

OS Windows® 10 IoT Enterprise 2016 LTSB (64 bit)	
MPU Intel <sup>®</sup> Core™ i3-6100U 2.30 GHz (Dual Core)	
Screen size 15" 21.5" widescreen	
Resolution         XGA: 1024 x 768 dots         Full HD: 1920 x 1080 dots	ots
Display color 16.77 million	
Touch panel type PCAP (Projected Capacitive)	
Main memory 8 GB	
Internal storage 64 GB	







21.5" widescreen, Full HD

# MI3000 connects shop floors and IT systems in real time as the front-end and the base of your factory

Factories that do not create defects, that do not stop. To make existing factories smarter, demands for applying IoT to shop floors are rapidly increasing. MI3000 utilizes the latest IoT technologies to visualize production activities and collect and analyze big data of manufacturing, thus increasing productivity and ensuring and improving products quality.



MELIPC

MI3000

GT SoftGOT2000

System configuration

## **MI3000 features**

High resolution, large screen display, and equipped with all necessary functions to visualize factories in one body



Display colorful images with 16.77 million colors

# Beautiful, stunning, large screen monitor offers easy-to-view display and user-friendly operation

MI3000 is equipped with large 21.5-inch widescreen display and a full HD high resolution LCD panel<sup>\*1</sup>. Collected data can be displayed on the easy-to-view screen and can be operated by touch operations. <sup>\*1. Equipped on MI3321G-W.</sup>

## PCAP (Projected Capacitive) touch panel

Light-touch operation is realized with a PCAP touch panel that is widely used for smartphones and tablet devices. The touch panel with high transmittance offers clear and high visibility display.

#### Data analysis/diagnosis/monitoring

Equipped with Intel<sup>®</sup> Core<sup>™</sup> i3 CPU, 8 GB memory, and 64 GB SSD. Simple analysis/diagnosis/monitoring of collected data contributes to improve shop floors.

#### System expansion according to needs

Equipped with various interfaces, systems can be configured according to the customers' needs.

1 DisplayPort

Output to an external monitor. Screen can be displayed on a larger monitor.

② M.2 (2280) SATA (inside the cover)

Expand storage for collecting and storing large amounts of data.

③④ PCI Express<sup>®</sup>/mini PCI Express<sup>®</sup> (inside the cover) Expand functions by using an expansion board.

#### **5** Sound output

For outputting sound by connecting a speaker with built-in amplifier. To output sound from GT SoftGOT2000, sound files can be created easily with GT Designer3. (See page 10)

#### 67 USB3.0/USB2.0

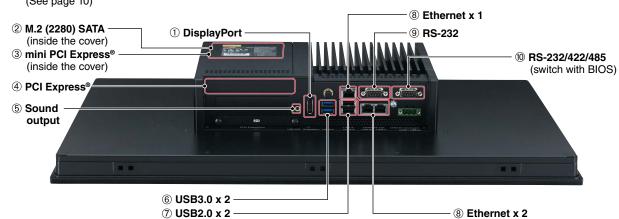
Each interface has two ports for connecting to various USB compatible devices.

#### 8 Ethernet

Various Ethernet compatible devices can be connected to 3 ports. The network in the office can be separated from the one in shop floors to enhance security.

#### 910 RS-232/422/485

For data collection from existing facilities.



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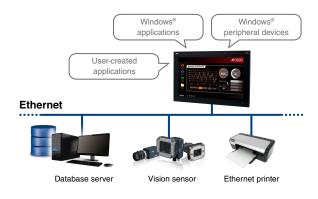
Product



# Windows<sup>®</sup> OS and coordination with Edgecross enable wider usage

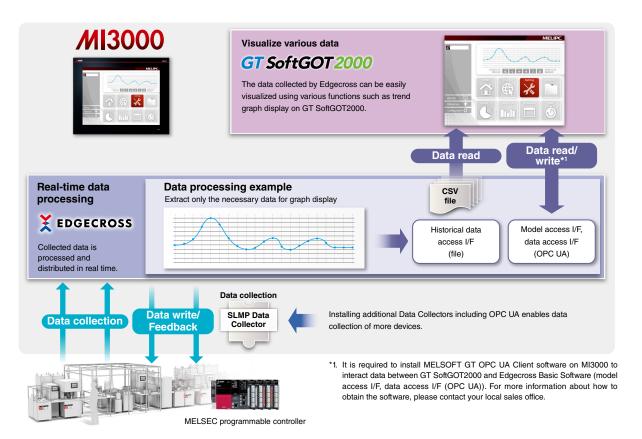
## Windows® 10 IoT Enterprise pre-installed

Not only familiar Windows<sup>®</sup> applications, but also usercreated applications can be used to configure systems that meet requirements of individual customers. In addition, long-term support of Windows<sup>®</sup> 10 IoT Enterprise ensures safe use of facilities and devices with long life cycles.



## Edgecross compatible software pre-installed

Edgecross Basic Software, SLMP Data Collector, and GT SoftGOT2000 are pre-installed on MI3000. The data collected by Edgecross, SLMP Data Collector, and GT SoftGOT2000 can be monitored on the GT SoftGOT2000 screen.



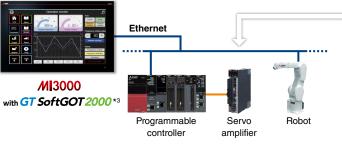
## Easily visualize shop floors with GT SoftGOT2000

# MI3000 with GT SoftGOT 2000



## GT SoftGOT2000 pre-installed

GT SoftGOT2000 is pre-installed\*1 on MI3000. Various industrial devices can be directly connected\*2 and monitored in the same way as GOT2000 Series. The data collected by Edgecross can also be monitored.



\*1. GT SoftGOT2000 license key (for USB port) (sold separately) is not required.

- \*2. For the connectable model list and supported connection types, please refer to the Graphic Operation Terminal GOT2000 Series Catalog (L(NA)08270ENG), or refer to the GT SoftGOT2000 Version1 Operating Manual by starting up e-Manual Viewer that is pre-installed on MI3000.
- \*3. To monitor devices of MELSERVO-J5 Series servo amplifiers, it is required to use GT SoftGOT2000 and GT Designer3 Version1.240A or later.

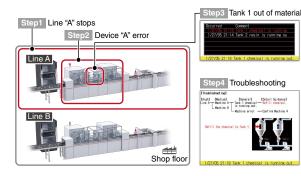
#### GOT Drive Interactive Solutions Monitor devices of MELSERVO-J5 Series servo amplifiers (MR-J5-DG, MR-J5-DG-RJ, MR-J5W2-DG, MR-J5W3-DG) that are controlled by Motion modules. Visualizing servo systems speeds up system startup and adjustment, and improves preventive maintenance and troubleshooting efficiency. In addition, devices of MELSERVO-J4 Series servo amplifiers (MR-J4-B) and those of Motion controllers and Simple Motion modules that control the servo amplifiers can also be monitored.

**Drive Control (Servo)** 

## Use various functions of GT SoftGOT2000 on a panel computer

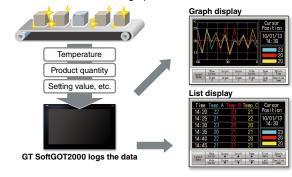
#### Alarm display

GT SoftGOT2000 displays communication errors (system alarms) of controllers and user-created alarms (user alarms).



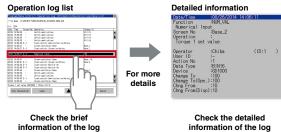
#### Logging & Graph/List

GT SoftGOT2000 collects the data from programmable controllers and other devices and displays the collected data in a historical trend graph and list.



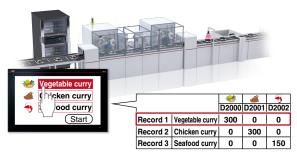
**Operation log** 

GT SoftGOT2000 records the operation information, such as "what, when, and how" of an operation performed, in chronological order in a USB memory.



#### Recipe

GT SoftGOT2000 saves the recipe information (device values) such as material blend and machine conditions. You can change the recipe on the GT SoftGOT2000 and write it to a programmable controller to quickly perform the changeover.



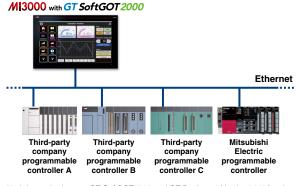
Specifications

Product



#### Multi-channel \*1

Up to four channels of industrial devices can be monitored via Ethernet on a single module of GT SoftGOT2000. With this function, you can flexibly configure systems and visually check devices.



\*1. It is required to use GT SoftGOT2000 and GT Designer3 Version1.240A or later.

#### Operability

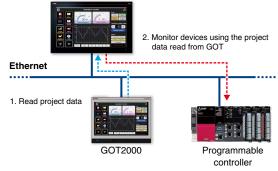
Not only touch operations, but also long-press operations<sup>\*1</sup> can be used. Enabling momentary action and ON-delay of touch switches ensures safe operation and improves operability.



### Interaction with GOT2000

GT SoftGOT2000 allows monitoring of devices connected via Ethernet using the project data that is read from GOT at a shop floor. GT SoftGOT2000 and the GOT can display different screens. Since the project data dedicated for GT SoftGOT2000 is not required, you can quickly start remote monitoring. (SoftGOT-GOT link function)

## MI3000 with GT SoftGOT 2000

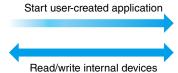


#### Interaction with Windows® applications

By creating a touch switch on the GT SoftGOT2000 screen, it is possible to start other applications (such as Microsoft<sup>®</sup> Excel<sup>®</sup>) while monitoring with GT SoftGOT2000. Interaction with Windows<sup>®</sup> applications makes it possible to build advanced and flexible systems.



M3000 with GT SoftGOT 2000



	A B		D	E	F	G	н
1 8	Production Resu	It (Daily)					
3	Production r			Transiti	on grap	h	
4	Product A	105		Vol.	Product A		educt B
5	Product B	155		30			
6	Product C	200		25			-
7	Total	460		20	$\sum$	-	-
8				15		1	/
9				10			
10				5			
11	Print			0			
12				9	11	18 15 Jane	17

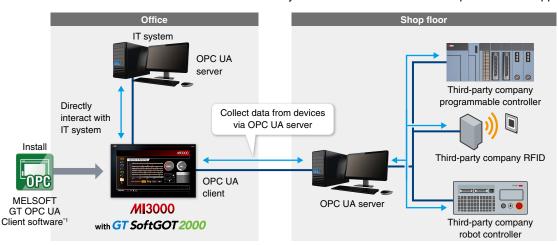
Microsoft® Excel® VBA screen example

Support

# MI3000 with GT SoftGOT 2000

## OPC UA client support for data collection and monitoring of various devices\*2

GT SoftGOT2000 accesses an OPC UA server as an OPC UA client. GT SoftGOT2000 can collect data you need via the OPC UA server even if direct connection to IT systems or the devices at the shop floor is not supported.



#### OPC UA (OLE for Process Control Unified Architecture):

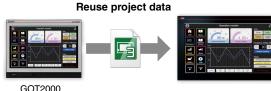
a highly reliable, open international standard for industrial communication that enables data exchange among devices from multiple vendors on different operating systems.

- \*1. It is required to install MELSOFT GT OPC UA Client software on a personal computer. For more information about how to obtain the software, please contact your local sales office.
- \*2. It is required to use GT SoftGOT2000 and GT Designer3 Version1.240A or later.

## Easily create project data

#### Creating screens is easy

The display screen is created with GT Designer3. By converting the GOT type to MI3000, the project data for GOT2000 can be used as is. Ready to use sample screens are also available.



MI3000 with GT SoftGOT 2000

#### Sound files can be created easily

Sound files for notification can be created easily with GT Designer3. Just enter text in GT Designer3 to create a sound file of a message. In addition to messages, sound effects and melodies are included. Three types of sound files can be combined to make effective audio guidance. (Speech synthesis function\*1)

\*1. GT Works Text to Speech License (SW1DND-GTVO-M) is required separately.

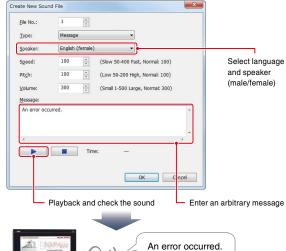




#### Playable sound file types



#### Image of creating a message





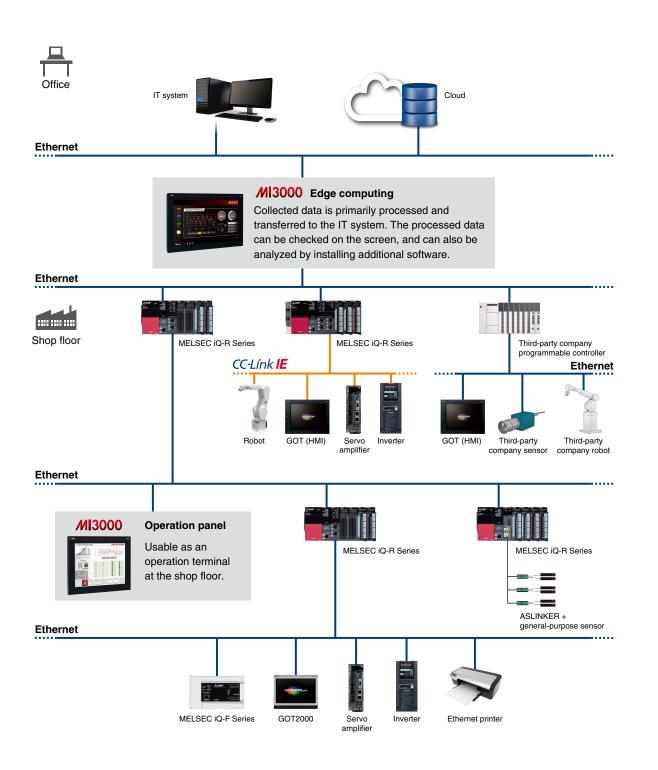
MELIPC

Product list



# System configuration

Utilization of pre-installed Edgecross Basic Software and SLMP Data Collector enables real-time monitoring of shop floor data and realizes coordination with IT systems. In addition, collected data is easily visualized with GT SoftGOT2000.



MI3000

MELIPC

## MELIPC MI3000 specifications

### **General specifications**

		Specifi	cations
100	em	MI3321G-W	MI3315G-W
Operating ambient te	emperature (°C)	0	.55
Storage ambient tem	perature (°C)	-20.	60
Operating ambient h	umidity	10 00% BH a	ion-condensing
Storage ambient hur	nidity	וו,חח איש טעטו	on-condensing
Vibration resistance	Dondom vibration	Compliant with IEC60068-2-64, 550	0Hz, one hour in direction X, Y, Z each
vibration resistance	Random vibration	3 G	rms
Shock resistance		Compliant with IEC-60068-2-27	7, 10 G, half sine wave, 11 msec
Operating atmosphe	re	No greasy fumes, no corrosive gases, no flammable gases, no ex	cessive conductive dust, no direct sunlight (as well as at storage)
Operating altitude*3*4	4	-	-
Installation location		Inside the c	ontrol panel
Overvoltage category	y*1	≤	II
Pollution degree*2		≤	2
Cooling method		Self-cooling	g (fan-less)
Grounding		Grounding with a ground resistance of 100 $\Omega$ or less by using a	ground cable that has a cross-sectional area of 2 mm <sup>2</sup> or more.

\*1. This indicates the section of the power supply to which the equipment is assumed to be connected between the public electrical power distribution network and the machinery within premises. Category II applies to equipment for which electrical power is supplied from fixed facilities. The surge voltage withstand level for up to the rated voltage of 300 V is 2500 V.

\*2. This index indicates the degree to which conductive material is generated in terms of the environment in which the equipment is used. Pollution level 2 is when only non-conductive pollution occurs. A temporary conductivity caused by condensing must be expected occasionally.

 \*3. Do not use nor store the product under pressure higher than the atmospheric pressure of altitude 0 m. Doing so may cause malfunction.
 \*4. No limitations to altitude. When used at a high altitude, the upper limits of the permissible voltage and the operating ambient temperature become lower. Please check performance before use at the customer side.

#### **Performance specifications**

	Specifi	cations
Item	MI3321G-W	MI3315G-W
Hardware		
MPU	Intel <sup>®</sup> Core™ i3-6100L	J 2.30GHz (Dual Core)
Main memory (byte)	8	G
Internal storage capacity (byte)	64	łG
Battery replacement	Not repla	aceable*2
Battery life	4 ye	ears
Extended storage interface	M.2 (2280) S	SATA SSD x 1
Software		
OS	Windows <sup>®</sup> 10 IoT Enter	prise 2016 LTSB (64 bit)
System language	At initial star	rtup: English
Display interface (for external monitor outp	ut)	
Interface	DisplayPo	ort 1.4 x 1
Resolution*1	Max. 384	40 x 2160
Extended slot		
PCI Express®	x1 slot, (ha	alf size) x 1
mini PCI Express®	Full si	ze x 2
PCI	-	_
Ethernet (RJ45)		
Interface		SE-TX/1000BASE-T DI/MDI-X)
Number of channels	:	3
RS-232 (D-sub 9-pin (male))		
Number of channels	2 (RS-422/485 can also be use	d for one of the two channels*3)
Transmission rate (bps)	3001	115200
RS-422 (D-sub 9-pin (male))		
Number of channels	1 (RS-232/485 ca	an also be used*3)
Transmission rate (bps)	3001	115200
RS-485 (D-sub 9-pin (male))		
Number of channels	1 (RS-232/422 ca	an also be used*3)
Transmission rate (bps)	3001	115200
USB (USB Type-A)		
USB3.0	2	2
USB2.0		2
Sound output ( $\varphi$ 3.5 mini-jack (3-prong))		
Interface	Audio L	ine-Out
Number of ports		1
Others		
Built-in clock precision		econds to +2 seconds seconds to +60 seconds
Safety standards, radio laws	CE, UL, cUL, KC,	BSMI, CCC, FCC
External dimensions (H x W x D)	349.8 x 558.4 x 88.8 mm (13.77 x 21.98 x 3.50 inch)	307.3 x 383.2 x 86 mm (12.10 x 15.09 x 3.39 inch)
Panel cutting dimensions (H x W)	341.8 x 550.3 mm (13.46 x 21.67 inch)	298.5 x 374.5 mm (11.75 x 14.74 inch)
Weight	9.8 kg (21.6 lb)	7.0 kg (15.4 lb)

\*1. Maximum resolution at 60 Hz.

\*2. The battery cannot be removed by users. For the battery replacement, please consult your local sales office.

\*3. The interface can be switched between RS-232, RS-422, and RS-485 with the BIOS.

Product list



## **Display specifications**

Item	Specifi	cations
Item	MI3321G-W	MI3315G-W
Display specifications		
Display device*1*2	TFT co	lor LCD
Screen size	21.5" widescreen	15"
Resolution (dots)	Full HD: 1920 x 1080	XGA: 1024 x 768
Display colors	16.77	million
Backlight specification	LED backlight (	not replaceable)
Life	50,000	hours
Touch panel		
Туре	PCAP (Project	ed Capacitive)
Simultaneous press	Max. 10	) keys* <sup>3</sup>
Transmittance	90%	±3%
Others		
POWER LED	2 colors (blue	and orange)
Environmental protective structure	IP66 (fro	ont face)

\*1. As a characteristic of liquid crystal display panels, bright dots (always lit) and dark dots (never lit) may appear on the panel. Since liquid crystal display panels comprise a great number of display elements, the appearance of bright and dark dots cannot be reduced to zero. Individual differences in liquid crystal display panels may cause differences in color, uneven brightness and flickering. Note that these phenomena are characteristics of liquid crystal display panels and it does not mean the products are defective or damaged

\*2. Flickering may occur due to vibration, shock, or the display colors.

\*3. Multiple touch keys cannot be pressed simultaneously while GT SoftGOT2000 is used.

#### Power supply specifications

	Item	Specifi	cations
	nem	MI3321G-W	MI3315G-W
Power supply v	roltage	24 V DC (+2	20%, -20%)
Power	Under the maximum load	90	W
consumption	Stand alone	27	W
Applicable wire	size	Single wiring (single wire, stranded wir Rod terminal with an insulation sleeve Double wiring (single wire, stranded wi	: 0.25 to 2.5 mm <sup>2</sup> (AWG22 to AWG14)
Applicable sold	lerless terminal	DN00508D (AWG20), DN00708D (AWG18), D Crimp tool: DNT13-0101 (r	
Applicable tigh (for terminal blo	tening torque ock terminal screws)	0.20 N·n	n (M2.5)

#### GT SoftGOT2000 (pre-installed software) specifications

Item	Specifications
Resolution	640 to 1920 x 480 to 1200
Display color	65536 colors
Display language	At initial startup: English* <sup>2</sup>
Connection type*1	Ethernet connection, direct CPU connection, serial communication connection, CC-Link IE Controller Network connection, CC-Link IE Field Network connection, MELSECNET connection

\*1. Required devices vary depending on the connection type. For the details, please refer to the GT SoftGOT2000 Version1 Operating Manual.

\*2. By switching display languages, Japanese and Chinese (Simplified) can be displayed. To upgrade the software version, use the English version of the upgrade software.

## iQ Edgecross compatible software

#### Edge application

Item	MI3000
Real-time Data Analyzer	●* <sup>1</sup>
GT SoftGOT2000	(pre-installed)
GENESIS64™	•

\*1. Since MI3315G-W does not support the resolution that is recommended by Real-time Data Analyzer, some parts of the screen are not shown on the display. However, the hidden parts can be displayed by moving the display position.

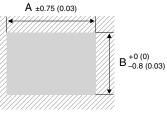
#### Data collector

Item	Мізооо
CC-Link IE Field Network Data Collector	
(MELIPC MI5122-VW)	_
CC-Link IE Field Network Data Collector*1	
CC-Link IE Controller Network Data Collector*1	•
CC-Link IE TSN Data Collector NEW	
SLMP Data Collector	● (pre-installed)
OPC UA Data Collector	
MTConnect Data Collector	•

\*1. The network interface board by Mitsubishi Electric is required separately.

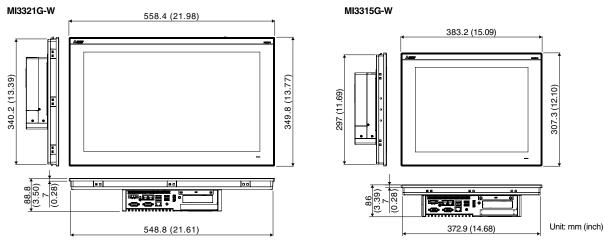
**Product list** 

anel cutting dimensions Unit: mr			Unit: mm (inch)
Screen size	Model	A	В
21.5" widescreen	MI3312G-W	550.3	341.8
5 widescreen		(21.67)	(13.46)
15" MI3315G-W	MISSIEC W	374.5	298.5
	10133130-00	(14.74)	(11.75)

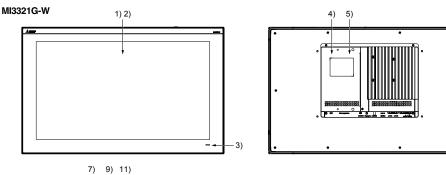


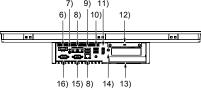
\* Panel thickness: 2 to 6 mm (0.08 to 0.24 inch)

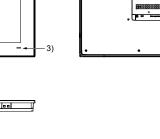
## **External dimensions**



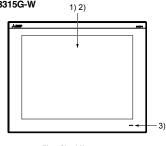
## Part names

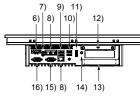


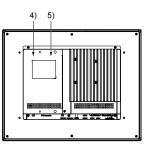












- 1) Display section
- 2) Touch panel
- POWER LED 3)
- 4) M.2 (2280) SATA interface (inside the cover)
- 5) mini PCI Express® interface (inside the cover)
- 6) Power supply terminal
- 7) Ground terminal
- Ethernet interface 8)
- USB2.0 interface 9)
- 10) USB3.0 interface
- 11) DisplayPort interface
- 12) SATA interface
- PCI Express® interface 13)
- 14) Sound output interface
- RS-232 interface 15)
- 16) RS-232/RS-422/RS-485 interface

Product list

Support



## Product list

## MELIPC

Product name	Model	Screen size	Panel color	Outline
MELIPC MI3000	MI3321G-W	21.5" widescreen, Full HD	Black	Edgecross Basic Software, SLMP Data Collector,
	MI3315G-W	15" XGA	Black	GT SoftGOT2000 pre-installed

## **Engineering tool**

Product name	Model	Outline	
HMI/GOT Screen Design Software MELSOFT GT Works3	SW1DND-GTWK3-E	English Version	Standard license product*1
GT Works Text to Speech License*2	SW1DND-GTVO-M	Standard license product	

\*1. The desired number of licenses (2 or more) can be purchased. For details, please contact your local sales office.
\*2. To edit sound files, each personal computer requires one license.

## Option

Product name	Model	Outline	
Network interface board	Q81BD-J71GF11-T2	PCI Express® bus compatible, CC-Link IE Field Network (master/local station)	
	Q81BD-J71GP21-SX	PCI Express® bus compatible, CC-Link IE Controller Network (control/normal station)	
	Q81BD-J71GP21S-SX	PCI Express® bus compatible, CC-Link IE Controller Network (control/normal station),	
		with external power supply function	

## iQ Edgecross

Product name	Model	Outline	
Real-time Data Analyzer*1	SW1DND-RDA-MQ12	One year subscription license, DVD included	
	SW1DND-RDA-MZQ12	One year subscription license	

\*1. For the details, please refer to the Industrial Computer MELIPC Series catalog (L(NA)08578ENG). This product can be used when one year subscription license is purchased. Please consult your local Mitsubishi Electric representative, if other license agreement is required.

## Related materials

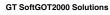


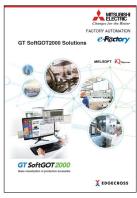
L(NA)08578ENG

**Graphic Operation Terminal** GOT2000 Series



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L(NA)08606ENG

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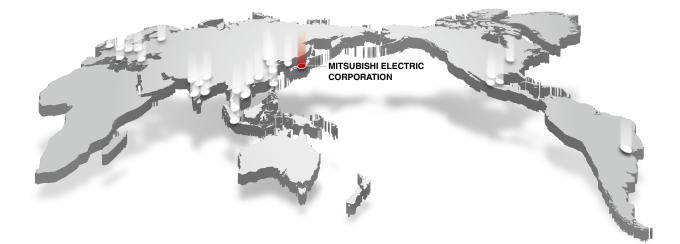
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Specifications



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Mitsubishi Electric Factory Automation provides a mix of services to support its customers worldwide. A consolidated global website is the main portal, offering a selection of support tools and a window to its local Mitsubishi Electric sales and support network.

- From here you can find:
- Overview of available factory automation products
- Library of downloadable literature
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- Latest news related to Mitsubishi Electric factory automation

Mitsubishi Electric Factory Automation Global website:

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Designed for newcomers to Mitsubishi Electric Factory Automation products gaining a background of the fundamentals and an overview of various products related to the course.

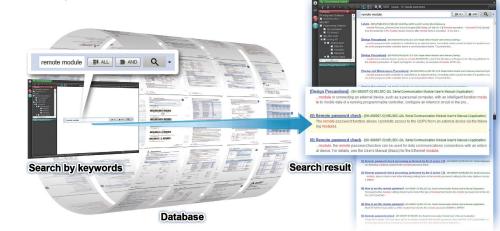
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#### Key features included

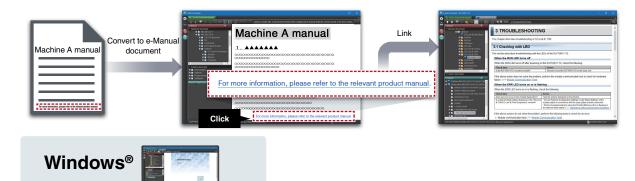
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## e-Manual Create

e-Manual Create is software for converting word files and chm files to e-Manual documents. e-Manual Create allows users to directly refer to Mitsubishi Electric e-Manuals from user's customized device maintenance manuals and such, supporting quick troubleshooting and reduction in document creation process.







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