



| HMI

TG·OP

# TG series general HMI

3.7-15.6 inches full coverage, 13 branch products to meet a variety of interaction needs of your industrial site



### Suitable for many occasions

- TG general model
- TG(G) gray ultrathin model
- TG(S) black ultrathin model



### Suitable for harsh environment

- TG(P) Site environment with heavy oil pollution
- TGM(D) Site environment with severe temperature requirements



### Suitable for special occasions

- TGM(B) Vehicle, medical, testing
- CCSG Special for marine ships
- TGM(L) Outdoor occasions



### Suitable for network demand occasions

- TGM Ethernet communication



### Suitable for basic occasions

- TG(S/G)-XT Cost effective
- OP key type operate panel



### Suitable for handheld operation

- MTG handheld wireless operation, built-in mobile power supply
- RT can be operated with one hand and two hands, which is convenient for field test equipment



### High hardware configuration for higher performance

<b>CPU</b> ARM9 core Main frequency 400MHz	<b>Memory</b> 128MB/64MB	<b>Storage</b> 128MB	<b>Color</b> 16.77 million	<b>Capacity</b> 4 million words Power off holding area
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### Download, start and run trinity ultra-high speed response



**Download**

USB high-speed data transmission can greatly reduce the program download time and facilitate debugging



**Start**

Greatly improve the startup speed and reduce the waiting time



**Run**

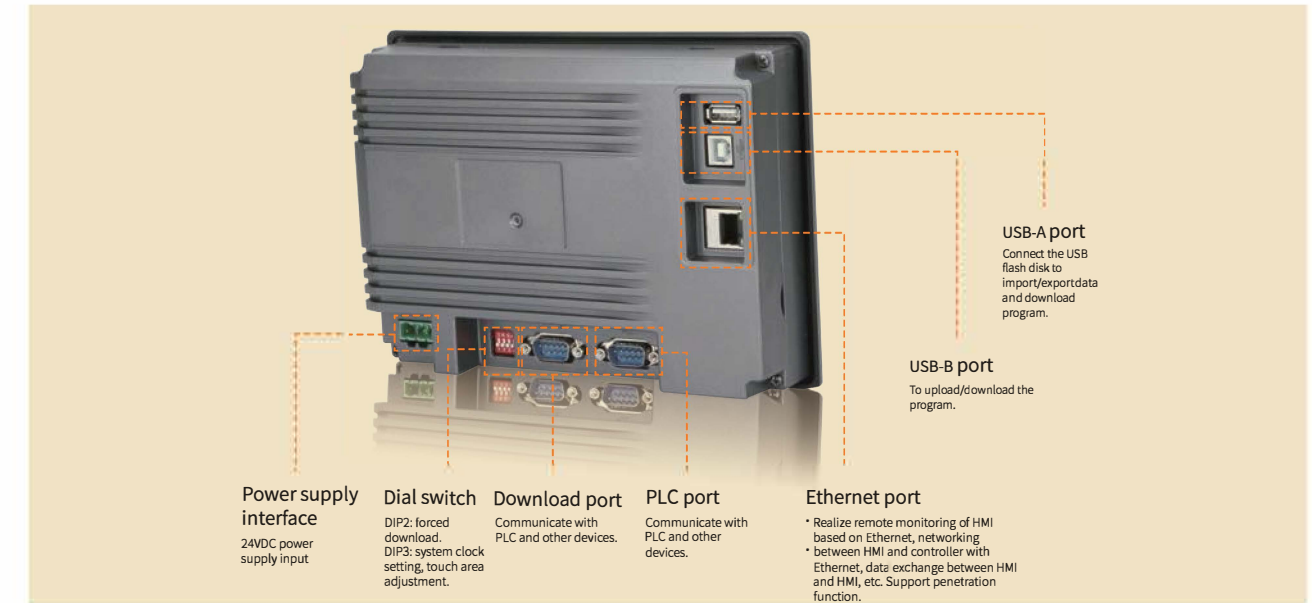
Smoother screen switching and animation effect

### Flexible installation and free choice

Vertical installation or horizontal installation can be freely selected according to the actual needs of the site.

## Excellent performance

### Rich interface and powerful communication capability



### Flexible connection and support communication of multiple devices

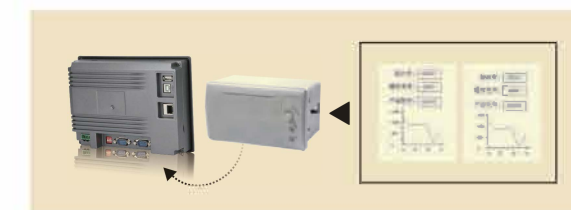
Flexible connectivity, direct communication with multiple devices

- It can be directly connected with PLC of various mainstream brands such as Mitsubishi, Siemens, Omron and Schneider, and communicate with various frequency converters and controllers such as Mitsubishi, Delta and Inovance.
- It supports communication with standard Modbus protocol controllers, and can connect multiple controllers supporting Modbus protocol at the same communication port, such as PLC, frequency converter, servo driver, instrument, etc.
- Support free protocol communication, and realize free communication of various instruments by flexible programming in C language.



### Support micro printer

- The download port can directly drive the micro printer, panel printer and thermal printer with RS232 interface, so as to realize the real-time printing of engineering data and acquisition curve.



### Rich download methods

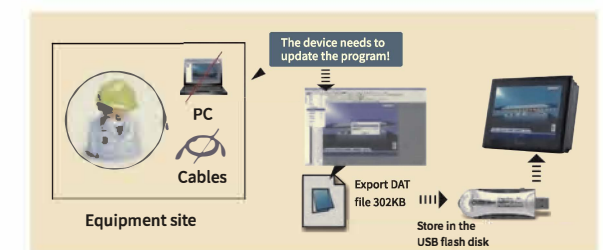
#### Program download based on USB-B interface

- USB-B interface complies with USB2.0 standard interface, connect the computer with the USB-B port for high-speed data transmission and picture download through the USB communication cable, greatly shorten the download time and make it more convenient for users to debug the program.



#### Use USB flash disk to quickly import the program through USB-A interface

- TG series models equipped with USB-A interface can directly download the program to HMI without computer but through USB flash disk. The download process is simple and fast, which is conducive to the confidentiality of the program. It is applicable to the situation that the program needs to be upgraded but there is no computer or download cable, saving time and cost.

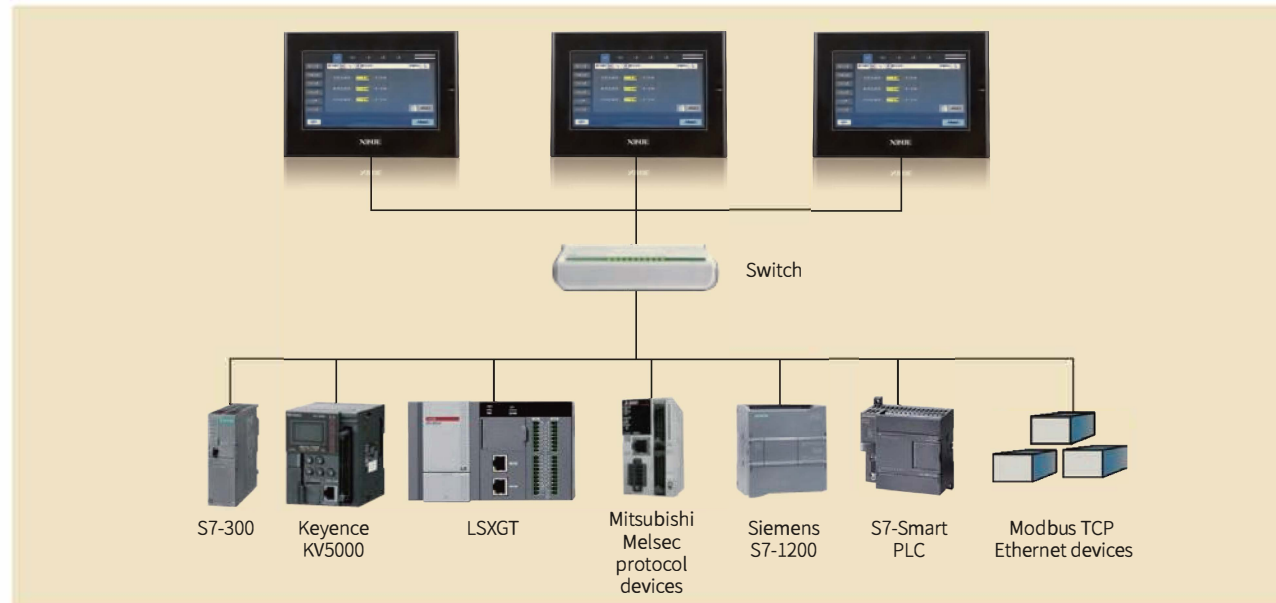


# Excellent performance

## From independent stand-alone to network communication, multiple networking mode

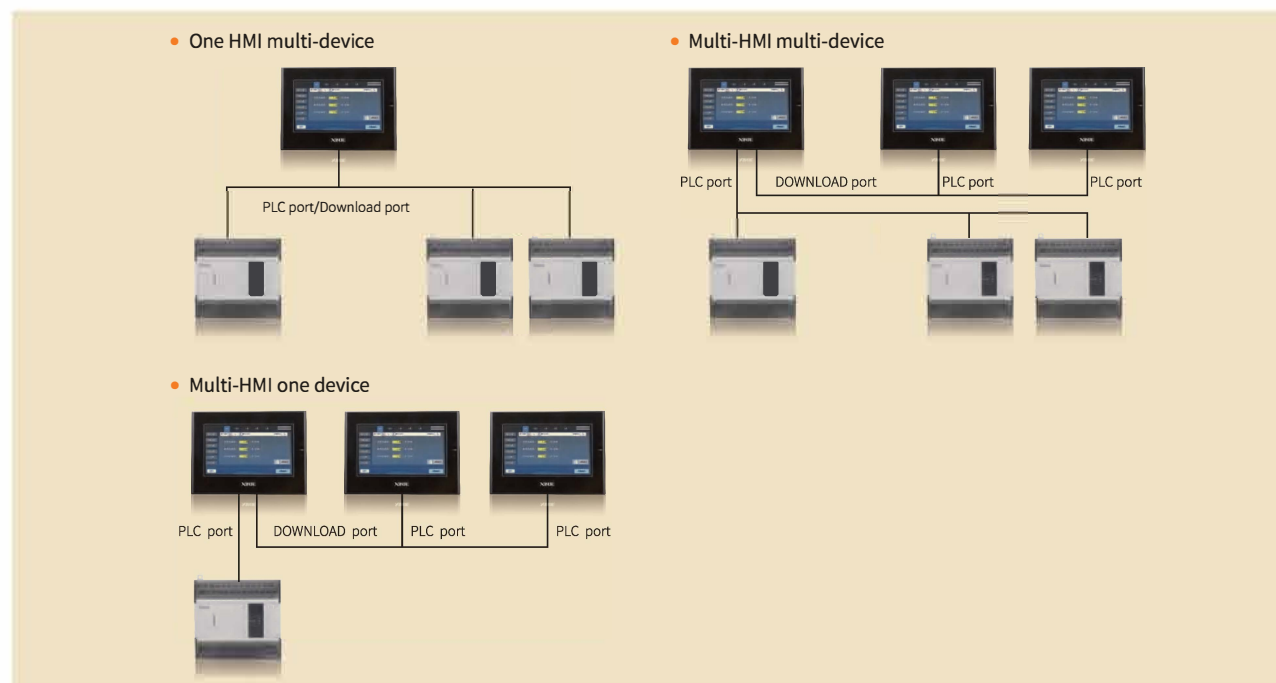
### Support Ethernet communication, improve communication speed, suitable for complex field environment

- Standard RJ45 Ethernet port
- It can form an open network structure with Modbus TCP devices, Siemens S7-1200, S7-300, Mitsubishi Melsec series, Keyence KV5000, LSXGT, Omron Fins TCP series and A-BOX-U.



### Various networking modes

- It can be networked according to the traditional master-slave mode or through X-NET bus.



# Wide temperature metal HMI

## TGM (D) series 10.1" 7"

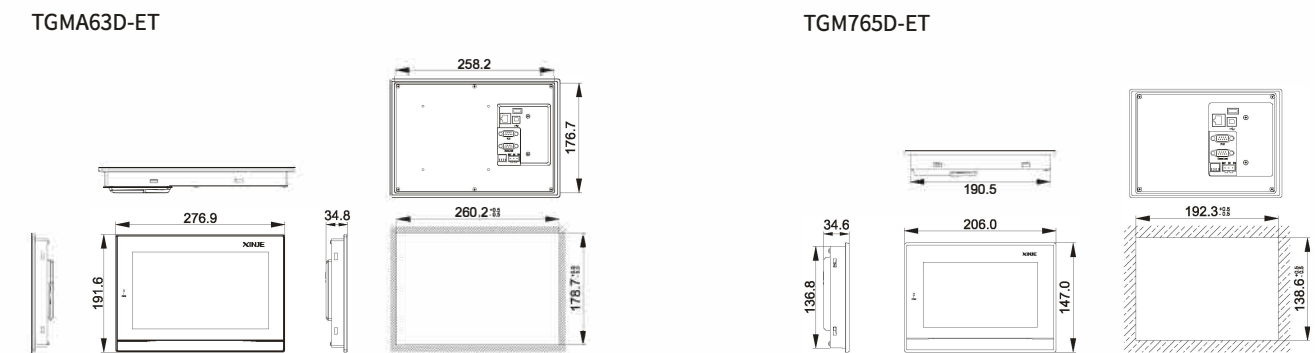
- New appearance and structure design, centralized interface
- Ultra thin body
- The metal cover of the whole machine greatly improves the anti-interference and heat dissipation
- The temperature range is -20°C~70°C, suitable for the site environment with high temperature requirements
- More industrial chips are adopted, and the performance is more stable



### Product specification

Product model		TGMA63D-ET	TGM765D-ET
Product features	Display size	10.1"	7"
	Resolution	1024*600	800*480
	LCD	TFT LCD display, LED backlight	
	Display color	16.77million colors	
	Brightness	200 cd/m <sup>2</sup>	
	Touch panel	Four-wire resistive touch screen	
	LCD life	Above 50000 hours, ambient temperature 25°C, 24-hour operation	
Interface	Memory	128MB	
	PLC port	RS232/RS485/RS422	
	Download port	RS232/RS485	/
	USB-A port	USB flash disk port, USB2.0 standard	
	USB-B port	USB download port, USB2.0 standard	
	Ethernet port	Standard RJ45	
Electrical features	Input voltage	DC24V (voltage range: DC22V-DC26V)	
	Consumption current	270mA	200mA
	Allowable power loss	Below 10ms (actual power loss less than 1s)	
	Withstand voltage shock	AC1000V, 10mA, less than 1 minute (signal and ground)	
	Insulation resistance	Above 10MΩ, DC500V	
Environment	Operation temperature	-20-70°C	
	Storage temperature	-30-75°C	
	Operation humidity	10%RH-90%RH (no condensation)	
	Anti-interference ability	Voltage noise: 1500Vp-p, pulse width 1us, 1 minute	
	Air	No corrosive gas	
	Cooling mode	Natural air cooling	
Dimension	Protection level	Frontcover IP65	
	External dimension (mm)	276.9*191.6*34.8	206.0*147.0*34.6
	Opening size (mm)	260.2*178.7	192.3*138.6

### Appearance dimension drawing (Unit: mm)





# New appearance HMI

## TG (G) series 10.1" 7" 4.3"

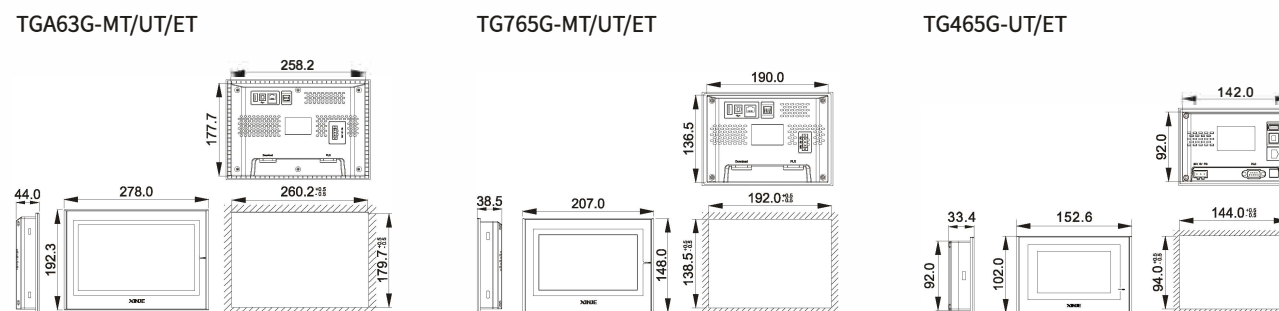
- The gray appearance design of the whole machine has strong visual impact
- Improved cover material, frosted texture
- The function and performance are the same to TG(S) series



### Product specification

Product model		TGA63G-MT TGA63G-UT TGA63G-ET	TG765G-MT TG765G-UT TG765G-ET	TG465G-UT TG465G-ET
Product features	Display size	10.1"	7"	4.3"
	Resolution	1024*600	800*480	480*272
	LCD	TFT LCD display, LED backlight		
	Display color	16.77million colors		
	Brightness	200 cd/m <sup>2</sup>		
	Touch panel	Four-wire resistive touch screen		
	LCD life	Above 50000 hours, ambient temperature 25°C, 24-hour operation		
Interface	Memory	128MB		
	PLC port	RS232/RS422/RS485	RS232/RS422/RS485	RS232/RS485/RS422 (XT model cannot support RS422)
	Download port	RS232/RS485	RS232/RS485	/
	USB-A port	USB flash disk port, USB2.0 standard. UT/ET model can support		
	USB-B port	USB download port, USB2.0 standard		
Electrical features	Ethernet port	Standard RJ45, ET model can support		
	Input voltage	DC24V (voltage range: DC22V~DC26V)		
	Consumption current	270mA	200mA	180mA
	Allowable power loss	Below 10ms (actual power loss less than 1s)		
	Withstand voltage shock	AC1000V, 10mA, less than 1 minute		
Environment	Insulation resistance	Above 10MΩ, DC500V		
	Operation temperature	0°C~ 50°C		
	Storage temperature	-20°C~ 60°C		
	Operation humidity	10%RH-90%RH (no condensation)		
	Anti-interference ability	Voltage noise: 1500Vp-p, pulsewidth 1us, 1 minute		
	Air	No corrosive gas		
	Cooling mode	Natural air cooling		
Dimension	Protection level	Front cover IP65		
	External dimension (mm)	278.0*192.3*44.0	207.0*148.0*38.5	152.6*102.0*33.4
	Opening size (mm)	260.2*179.7	192.0*138.5	144.0*94.0

### Appearance dimension drawing (Unit: mm)



# Ultrathin type HMI

## TG (S) series 10.1" 7"

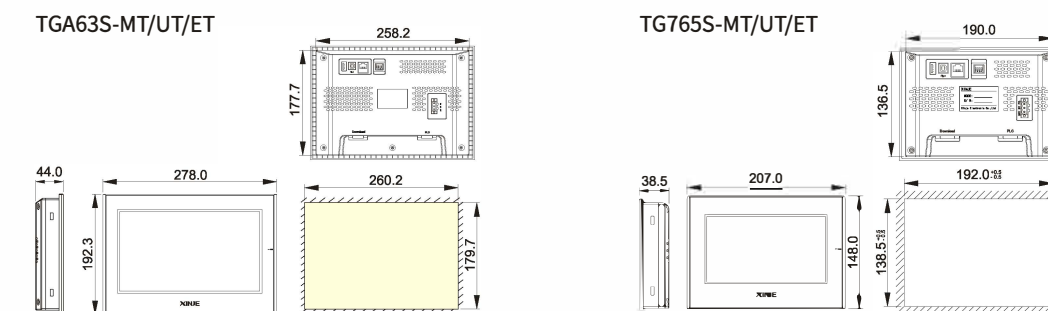
- Ultrathin and fashionable appearance design, 7" model thickness as low as 38.5mm
- The plastic cover made of PC and ABS alloy material (or flame retardant material) is more solid and durable
- Optimize the snap-fit design to effectively reduce the entry of external dust and oil stain
- The communication interface faces down to effectively save installation space



### Product specification

Product model		TGA63S-MT TGA63S-UT TGA63S-ET	TG765S-MT TG765S-UT TG765S-ET
Product features	Display size	10.1"	7"
	Resolution	1024*600	800*480
	LCD	TFT LCD display, LED backlight	
	Display color	16.77 million colors	
	Brightness	200 cd/m <sup>2</sup>	
	Touch panel	Four-wire resistive touch screen	
	LCD life	Above 50000 hours, ambient temperature 25°C, 24-hour operation	
Interface	Memory	128MB	
	PLC port	RS232/RS422/RS485	
	Download port	RS232/RS485	
	USB-A port	USB flash disk port, USB2.0 standard. UT/ET model can support	
	USB-B port	USB download port, USB2.0 standard	
Electrical features	Ethernet port	Standard RJ45, ET model can support	
	Input voltage	DC24V ((voltage range: DC22V~DC26V)	
	Consumption current	270mA	200mA
	Allowable power loss	Below 10ms (actual power loss less than 1s)	
	Withstand voltage shock	Above AC1000V, 10mA, less than 1 minute	
Environment	Insulation resistance	10MΩ, DC500V	
	Operation temperature	0°C~ 50°C	
	Storage temperature	-20°C~ 60°C	
	Operation humidity	10%RH-90%RH (no condensation)	
	Anti-interference ability	Voltage noise: 1500Vp-p, pulse width 1us, 1 minute	
	Air	No corrosive gas	
	Cooling mode	Natural air cooling	
Dimension	Protection level	Front cover IP65	
	External dimension (mm)	278.0*192.3*44.0	207.0*148.0*38.5
	Opening size (mm)	260.2*179.7	192.0*138.5

### Appearance dimension drawing (Unit: mm)



# General HMI

## TG series 15.6" 10.1" 8" 7" 4.3"

- Covering complete display size, the product lineup is abundant
- It has various functions and is suitable for most industrial sites
- USB-A front port design, easy to use (TGC65, TGA62 support)



### ■ USB-A front interface design, more convenient operation TGC65/TG 2support

USB-A interface is used for data import and export. This interface is designed on the front of the panel. When transmitting data, there is no need to open the control cabinet. It is easy to operate and greatly improves the work efficiency.

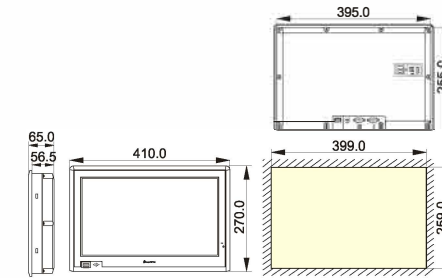


## Product specification

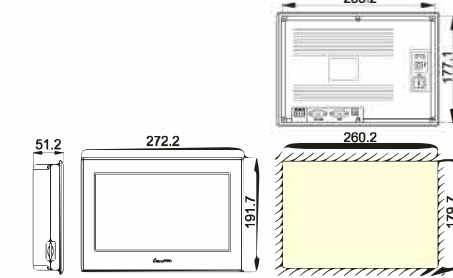
Product model		TGC65-ET	TGA63-MT TGA63-UT TGA63-ET	TGA62-MT TGA62-ET	TG865-MT TG865-ET	TG765-MT TG765-UT TG765-ET	TG465-MT TG465-UT TG465-ET	TG465-MT2 TG465-UT2 TG465-XT	
Product features	Display size	15.6"	10.1"	10.1"	8"	7"	4.3"		
	Resolution	1366*768	1024*600	800*480	800*600	800*480	480*272		
	LCD	TFT LCD display, LED backlight							
	Display color	16.77 million colors							
	Brightness	250 cd/m <sup>2</sup>	200 cd/m <sup>2</sup>						
Interface	Touch panel	Four-wire resistive touch screen							
	LCD life	Above 50000 hours, ambient temperature 25°C, 24-hour operation							
	Memory	128MB							
	PLC port	RS232/RS422/RS485							
	Download port	RS232/RS485					RS232/RS485 (only -MT2/UT2 model support)		
Electrical features	USB-A port	USB flash disk port, USB2.0 standard. UT/ET model can support							
	USB-B port	USB download port, USB2.0 standard							
	Ethernet port	Standard RJ45, ET model can support							
	Input voltage	DC24V (voltage range: DC22V~DC26V)							
	Consumption current	730mA	270mA	250mA	200mA	180mA			
Environment	Allowable power loss	Below 10ms (actual power loss less than 1s)							
	Withstand voltage shock	AC1000V, 10mA, less than 1 minute							
	Insulation resistance	Above 10MΩ, DC500V							
	Operation temperature	0°C~50°C							
	Storage temperature	-20°C~60°C							
Dimension	Operation humidity	10%RH-90%RH (no condensation)							
	Anti-interference ability	Voltage noise: 1500Vp-p, pulsewidth 1us, 1 minute							
	Air	No corrosive gas							
	Cooling mode	Natural air cooling							
Dimension	Protection level	Front cover IP65							
	External dimension (mm)	410.0*270.0*65.0	272.2*191.7*51.2	272.2*191.7*51.2	224.4*170.8*45.5	200.4*146.9*48.5	152.0*102.0*41.8		
	Opening size (mm)	399.0*259.0	260.2*179.7	260.2*179.7	211.4*157.8	192.0*138.5	144.0*94.0		

## Appearance dimension drawing (Unit: mm)

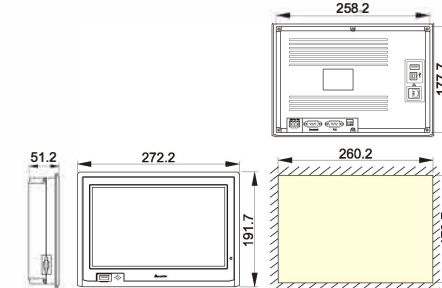
TGC65-ET



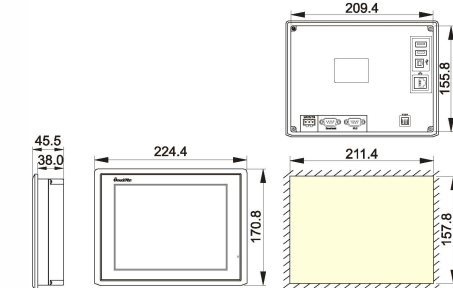
TGA63-MT/UT/ET/NT



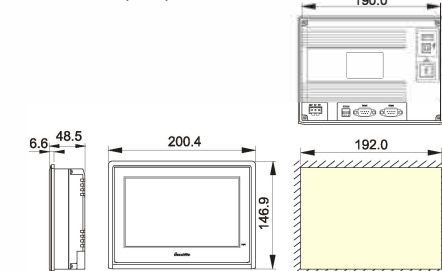
TGA62-MT/ ET



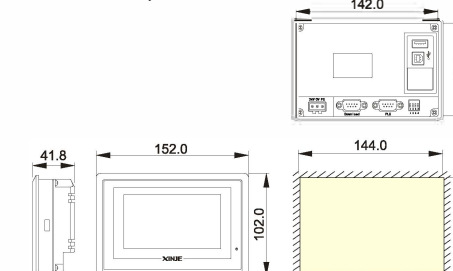
TG865-MT/ ET



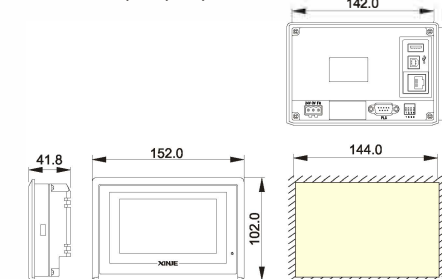
TG765-MT/ UT/ ET



TG465- MT2/ UT2



TG465-MT/ UT/ ET/ XT



# Highlight type HMI

## TGM(L) series 7"

- Based on the network series products (TGM), the brightness is increased to 530, which can be used in outdoor occasions

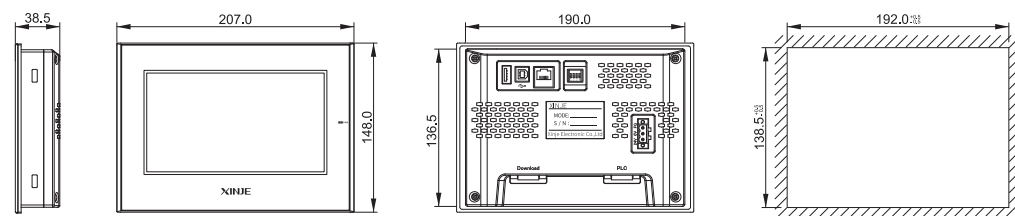


### Product specification

Product model		TGM765L-MT	TGM765L-ET
Product features	Display size	7"	
	Resolution	16.77 million colors	
	LCD	800*480	
	Display color	530 cd/m <sup>2</sup>	
	Brightness	Four-wire resistive touch screen	
	Touch panel	Above 50000 hours, ambient temperature 25°C, 24-hour operation	
Interface	LCD life	128MB	
	Memory	RS232/RS485/RS422	
	PLC port	RS232/RS485	
	Download port	USB flash disk port, USB2.0 standard	
	USB-A port	USB download port, USB2.0 standard	
Electrical features	USB-B port	/	Standard RJ45
	Ethernet port	DC24V (voltage range: DC22V~DC26V)	
Environment	Input voltage	200mA	
	Consumption current	Below 10ms (actual power loss less than 1s)	
	Allowable power loss	AC1000V, 10mA, less than 1 minute (signal and ground)	
	Withstand voltage shock	Above 10MΩ, DC500V (signal and ground)	
	Insulation resistance	0-50°C	
Dimension	Operation temperature	-20-60°C	
	Storage temperature	10%RH-90%RH (no condensation)	
	Operation humidity	10~25Hz (X, Y, Z direction each 30 minutes 2G)	
	Anti-interference ability	Voltage noise: 1500Vp-p, pulse width 1us, 1 minute	
	Air	No corrosive gas	
	Cooling mode	Front cover IP65	
	Protection level	Natural air cooling	
External dimension (mm)	207.0*148.0*38.5		
Opening size (mm)	192.0*138.5		

### Appearance dimension drawing (Unit: mm)

TGM765L-MT/ET



# Oil resistant type HMI

## TG (P) series 10.1" 7" 4.3"

- The oil resistant type redesign the upper cover and film on the basis of the general TG series products, and increase the width of the back glue of the film, so as to achieve the purpose of more oil resistance on the front
- It is applicable to the environment with heavy oil pollution, and other functions are the same as the general type



### Product specification

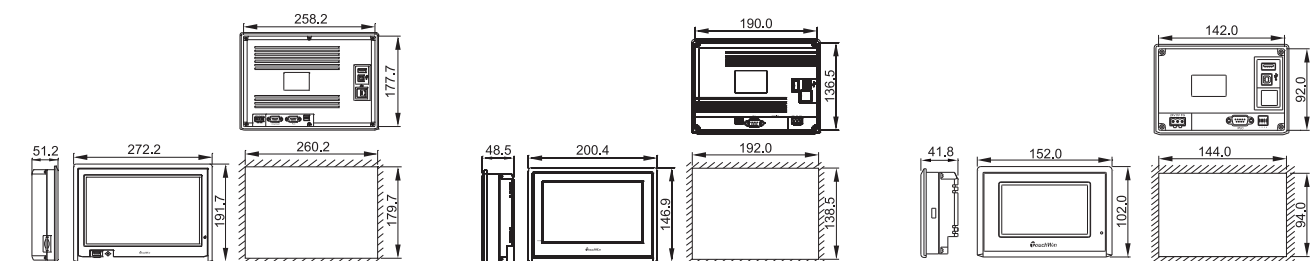
Product model		TGA62-MT(P) TGA62-ET(P)	TG765-MT(P) TG765-UT(P)	TG765-XT(P)-C	TG465-MT(P)
Product features	Display size	10.1"	7"	7"	4.3"
	Resolution	800*480	800*480	800*480	480*272
	LCD	TFT LCD display, LED backlight			
	Display color	16.77 million colors			
	Brightness	200 cd/m <sup>2</sup>			
	Touch panel	Four-wire resistive touch screen			
Interface	LCD life	Above 50000 hours, ambient temperature 25°C, 24-hour operation			
	Memory	128MB			
	PLC port	RS232/RS422/RS485		RS232	RS232/RS422/RS485
	Download port	RS232/RS485			
	USB-A port	USB flash disk port, USB2.0 standard, UT(P)/ET(P) models support			
Electrical features	USB-B port	USB download port, USB2.0 standard			
	Ethernet port	Standard RJ45, ET(P) models support			
	Input voltage	DC24V (voltage range: DC22V~DC26V)			
	Consumption current	270mA	200mA	200mA	180mA
	Allowable power loss	Below 10ms (actual power loss less than 1s)			
Environment	Withstand voltage shock	AC1000V, 10mA, less than 1 minute			
	Insulation resistance	Above 10MΩ, DC500V			
	Operation temperature	0°C~50°C			
	Storage temperature	-20°C~60°C			
	Operation humidity	10%RH~90%RH (no condensation)			
	Anti-interference ability	Voltage noise: 1500Vp-p, pulse width 1us, 1 minute			
	Air	No corrosive gas			
Cooling mode	Natural air cooling				
Dimension	External dimension (mm)	272.2*191.7*51.2	200.4*146.9*48.5	200.4*146.9*48.5	152.0*102.0*41.8
	Opening size (mm)	260.2*179.7	192.0*138.5	192.0*138.5	144.0*94.0

### Appearance dimension drawing (Unit: mm)

TGA62-MT(P)/ ET(P)

TG765-MT(P)/ UT(P) /XT(P)-C

TG465-MT(P)



# Economic type HMI

## Economic type TG series 7" 4.3"



### TG-ZT

- On the basis of general type TG/ultra-thin type TG(S)/new appearance TG(G) series products, one or two RS232 serial ports are reserved, with standard clock function  
Note: the serial port only supports RS232 communication mode

### TG-ZT

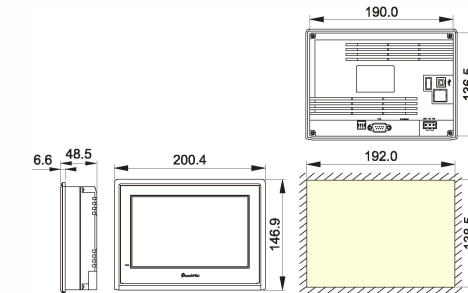
- Remove RS422 communication mode on the basis of new appearance TG(G) series products  
Note: the internal register PFW is stored every 1 minute

## Product specification

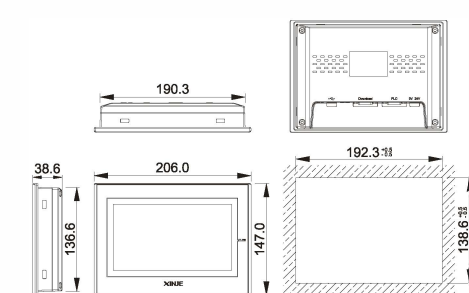
Product model		TG765-XT-C	TG765S-XT	TG765G-XT	TG765G-ZT	TG465G-ZT
Product features	Display size	7"				4.3"
	Resolution	800*480				480*272
	LCD	TFT LCD display, LED backlight				
	Display color	16.77million colors	16.77million colors	16.77 million colors	65535 colors	
	Brightness	200 cd/m <sup>2</sup>				
	Touch panel	Four-wire resistive touch screen				
	LCD life	Above50000 hours, ambient temperature 25°C, 24-hour operation				
Interface	Memory	128MB	128MB	128MB	64MB	
	PLC port	RS232	RS232	RS232	RS232/RS485	RS485
	Download port	/	RS232	RS232	RS232	RS232
	USB-A port	/	/	/	USB-A(USB2.0standard), USB flash disk port	
	USB-B port	USB-B (USB2.0 standard), USB download port				
	Ethernet port	/				
Electrical features	Input voltage	DC24V (voltage range: DC22V~DC26V)				
	Consumption current	200mA				180mA
	Allowable power loss	Below 10ms (actual power loss less than 1s)				/
	Withstand voltage shock	AC1000V, 10mA, less than 1 minute				/
	Insulation resistance	Above10MΩ, DC500V				/
Environment	Operation temperature	0°C~50°C				
	Storage temperature	-20°C~60°C				
	Operation humidity	10%RH-90%RH (no condensation)				
	Anti-interference ability	Voltage noise: 1500Vp-p, pulse width 1us, 1 minute				
	Air	No corrosive gas				
	Cooling mode	Natural air cooling				
Dimension	Protection level	Front cover IP65				
	External dimension (mm)	200.4*146.9*48.5	206.0*147.0*38.6	206.0*147.0*38.6	206.0*147.0*38.6	130.3*104.3*29.8
	Opening size (mm)	192.0*138.5				119.0*93.0

## Appearance dimension drawing (Unit: mm)

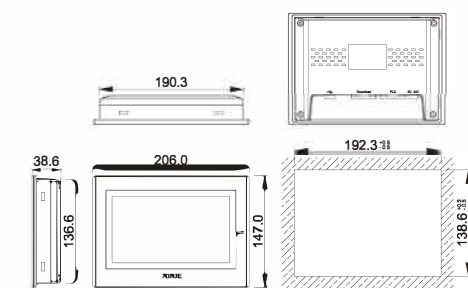
TG765-XT-C



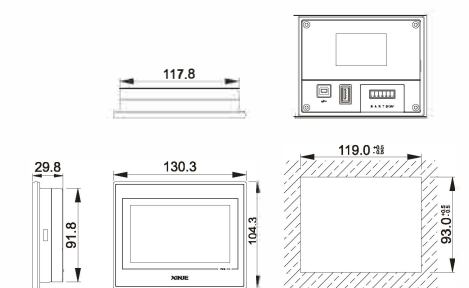
TG765S-XT



TG765G-XT/ZT



TG465G-ZT





# HMI special for ship navigation

## CCSG series 15.6" 10.1" 7"

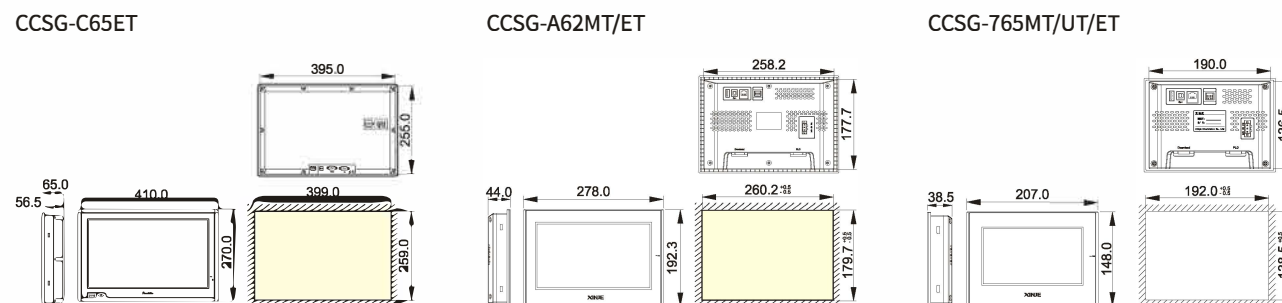
- Certified by China Classification Society, it is applicable to ships and marine facilities to meet the specific needs of the environment and ensure the stable and reliable operation of the system



### | Product specification

Product model		CCSG-C65ET	CCSG-A62MT CCSG-A62ET	CCSG-765MT CCSG-765UT CCSG-765ET
Product features	Display size	15.6"	10.1"	7"
	Resolution	1366*768	1024*600	800*480
	LCD	TFT LCD display, LED backlight, 16.77 million colors		
	Display color	16.77 million colors		
	Brightness	250 cd/m <sup>2</sup>	200cd/m <sup>2</sup>	
	Touch panel	Four-wire resistive touch panel		
	LCD life	Above 50000 hours, ambient temperature 25°C, 24-hour operation		
	Memory	128MB		
Interface	PLC port	RS232/RS422/RS485		
	Download port	RS232/RS485		
	USB-A port	USB flash disk port, USB2.0 standard, UT/ET models support		
	USB-B port	USB download port, USB2.0 standard		
Electrical features	Ethernet port	Standard RJ45 port, ET models support		
	Input voltage	DC24V (voltage range: DC22V~DC26V)		
	Consumption current	730mA	270mA	200mA
	Allowable power loss	Below 10ms (actual power loss less than 1s)		
Environment	Withstand voltage shock	AC1000V, 10mA, less than 1 minute		
	Insulation resistance	Above 10MΩ, DC500V		
	Operation temperature	0°C~50°C		
	Storage temperature	-20°C~60°C		
Dimension	Operation humidity	10%RH~90%RH (no condensation)		
	Anti-interference ability	Voltage noise: 1500Vp-p, pulsewidth 1us, 1 minute		
	Air	No corrosive gas		
	Cooling mode	Natural air cooling		
Dimension	External dimension (mm)	410.0*270.0*65.0	278.0*192.3*44.0	207.0*148.0*38.5
	Opening size (mm)	399.0*259.0	260.2*179.7	192.0*138.5

### | Appearance dimension drawing (Unit: mm)



# Operate panel

## OP series 3.7"

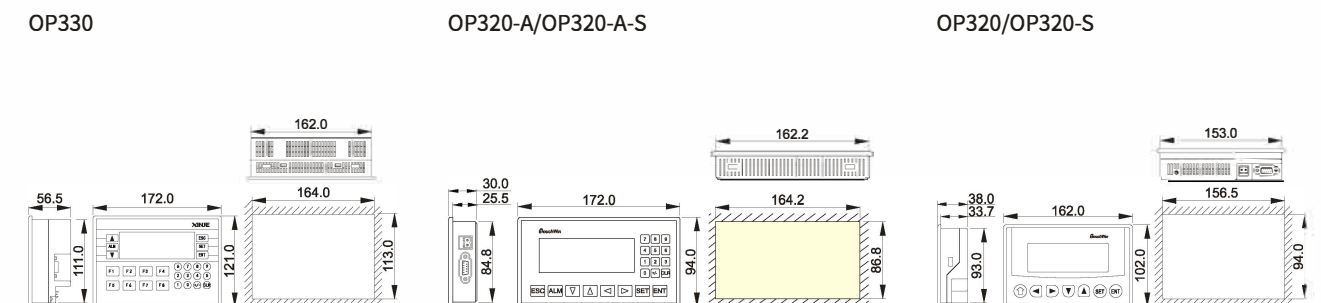
- OP series button type small-sized HMI, small and exquisite appearance
- The key function can be customized and can replace the mechanical button
- It has the basic functions of alarm, password, clock (optional), display bitmap, PLC control screen switching and so on
- Support the mainstream PLC and other control equipment in the market



### | Product specification

Product model		OP330	OP320-A OP320-A-S	OP320 OP320-S
Product features	Display size	3.7"		
	Resolution	192*64		
	LCD	STN		
	Display color	Yellow green color		
	Brightness	Potentiometer adjustable		
	Touch panel	Not support		
	LCD life	Above 20000 hours, ambient temperature 25°C, 24-hour operation		
	Memory	64KB FlashROM		
	Character setting	Chinese, English		
	Character size	Chinese: 16*16 32*32 English: 8*16 16*32		
Interface	Button	26	20	7
	Communication port	general models support RS232/RS422, (-S) model supports RS232/RS485		
	Download port	RS232		
	USB-A port	/		
Electrical features	USB-B port	/		
	Ethernet port	/		
	Input voltage	DC24V (DC22V~26V)		
	Consumption current	<140mA		
Environment	Allowable power loss	Below 10ms (actual power loss less than 1s)		
	Withstand voltage shock	AC1000V, 10mA, less than 1 minute		
	Insulation resistance	Above 10MΩ, DC500V		
	Operation temperature	0°C~50°C		
Dimension	Storage temperature	-20°C~60°C		
	Operation humidity	10%RH~90%RH (no condensation)		
	Anti-interference ability	Voltage noise: 1500Vp-p, pulse width 1us, 1 minute		
	Air	No corrosive gas		
Dimension	Cooling mode	Natural air cooling		
	Protection level	Front cover IP65		
Dimension	External dimension (mm)	172.0*121.0*56.5	172.0*94.0*30.0	162.0*102.0*38.0
	Opening size (mm)	164.0*113.0	164.2*86.8	156.5*94.0

### | Appearance dimension drawing (Unit: mm)





# TouchWin

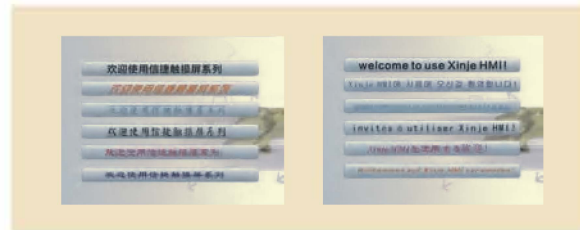
## Outstanding picture expressiveness



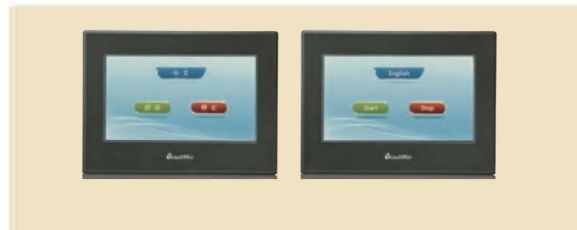
■ Rich 3D gallery and components resources



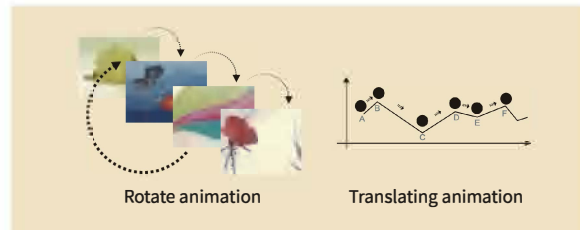
■ Various character forms



■ Support multiple languages and simple switching



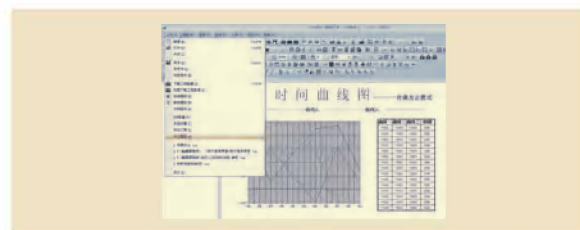
■ New animation editing method, rich performance



■ Program confidentiality function



■ Translating animation

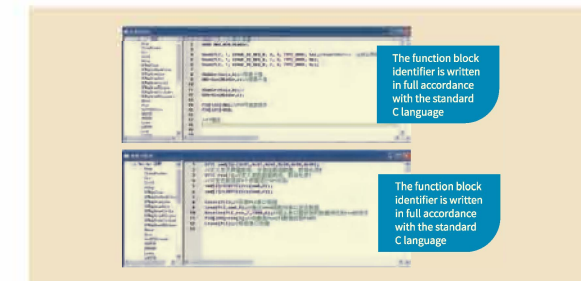


## Rich functional components

C language function block, operation, command and communication are omnipotent

• C language function block meets more complex computing and communication needs, give full play to the system functions and better serve customers.

■ Support most standard C functions



■ The function can be encrypted separately. You need to enter a password to view the function content, which protects the rights and interests of users



## Strong data processing capability

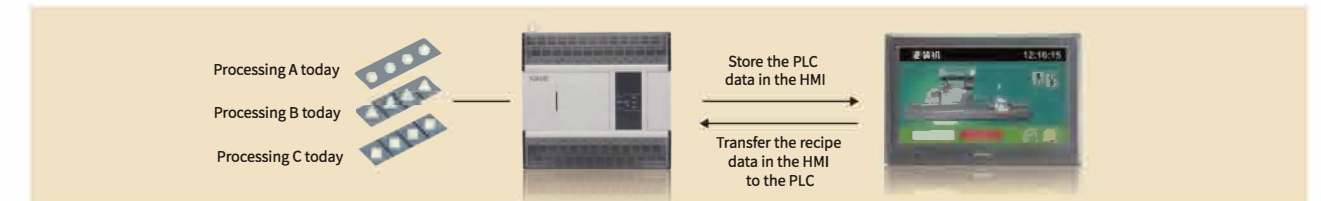
■ Process control data acquisition function, and the trend chart display is more intuitive



■ The alarm function allows the system to recover quickly



■ The storage and bidirectional transmission of recipe data greatly improve the work efficiency



■ Export CSV format data through USB flash disk, backup important data

