

Touch Screen

KTS Series

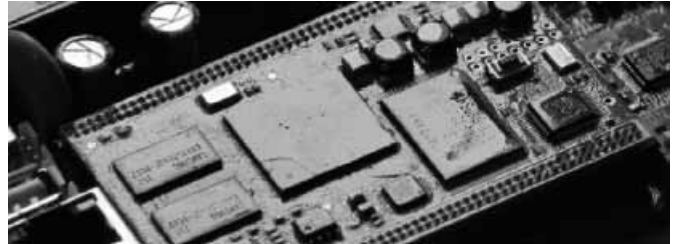
Wide Temperature range

- Can work efficiently under -30~70°C temperature.



Anti-corrosion Coating

- Anti-Corrosion material, applicable to harsh environment.



Full metal Frame

- Metal exterior, solid and strong anti-interference.



Multi-touch Capacitive HMI

- Nimble Touch, high light transmittance, no drift, Reinforced glass surface, anti-scratching and easily for washing.



Isolated Power

- Protect from over 4,000V group pulse and lightning sure. Can work under harsh industrial environment.



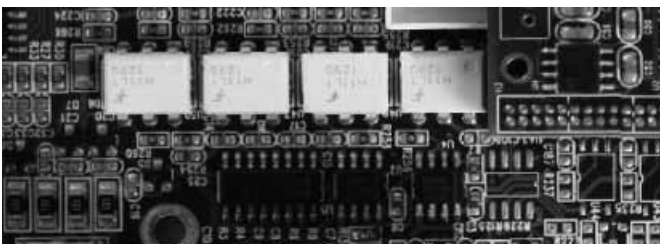
IPS Full LCD

- Full view, clear and light brightness, the screen can be seen clearly under sunshine.



Photoelectric Isolated Serial Ports

- Over voltage, to maintain stable communication state lightning to or static electricity.



Interface port

- All interface ports are placed in the bottom of the product, which enables the efficient use of space (KTS11 series).



Touch Screen

KTS Series

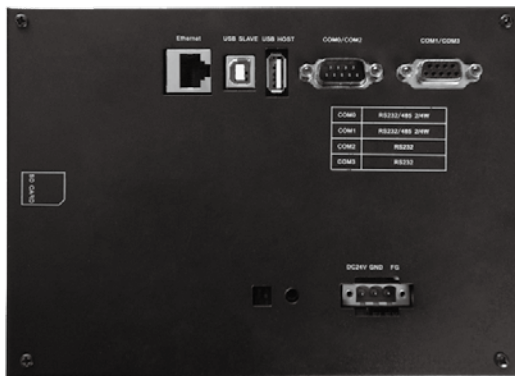
AV terminal (exclusively for KTS92070V)

- The AV terminal can be used to connect to a CCTV to use the realtime screen.



Diverse interfaces

- Diverse interface devices widen the compatibility of the product



1. ETHERNET PORT
10M/100M base

2. USB SLAVE
Program download/upload
for cable

3. USB HOST
Program download/upload
for USB memory

4. COM0, COM2
RS232/RS485/RS422

5. COM1, COM3
RS232/RS485/RS422

6. SD card

7. 24VDC POWER

KTS 11 Series

7"

16:9



KTS113070H

- 1024x600
- 65536 colors
- 600 cd/m² Brightness
- capacitive touch screen
- 600MHz ARM Cortex A8
- 256M Flash + 256M
- aluminum, steel
- DC 24V Input



9.7"

4:3



KTS113097X

- 1024x768
- 65536 colors
- 420 cd/m² Brightness
- capacitive touch screen
- 600MHz ARM Cortex A8
- 256M Flash + 256M
- aluminum, steel
- DC 24V Input



KTS 9 Series

4.3"



KTS92043W

- 480x272
- 65536 Colors TFT
- 300 cd/m² Brightness
- capacitive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



KTS 9 Series

7"



KTS92070

- 800x480
- 65536 Colors TFT
- 450 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



7"



KTS92070E

- 800x480
- 65536 Colors TFT
- 450 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



7"



KTS92070V

- 800x480
- 65536 Colors TFT
- 450 cd/m² Brightness
- resistive touch screen
- 32 Bit 600MHz RISC CORTEX A8 CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



8"

4:3



KTS92080S

- 800x600
- 65536 Colors TFT
- 300 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



9.7"

4:3



KTS92097X

- 1024x768
- 65536 Colors TFT
- 420 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



10.4"

4:3



KTS92104S

- 800x600
- 65536 Colors TFT
- 300 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



12.1"

4:3



KTS92121X

- 1024x768
- 65536 Colors TFT
- 500 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



15"

4:3



KTS92150X

- 1024x768
- 65536 Colors TFT
- 400 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC ARM926EJ CPU
- 128M Flash + 64M
- aluminum, steel
- DC 24V Input



Touch Screen

KTS Series

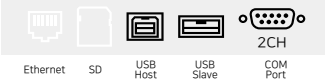
KTS 7 Series

4.3"



KTS72043C

- 480x272
- 65536 Colors
- 300 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC
- 128M Flash + 64M
- ABS+PC
- DC 24V Input

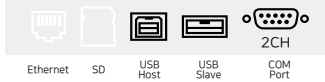


7"



KTS72070C

- 800x480
- 65536 Colors
- 450 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC
- 128M Flash + 64M
- ABS+PC
- DC 24V Input

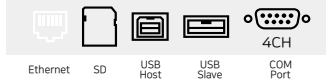


7"



KTS72070i

- 800x480
- 65536 Colors
- 450 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC
- 128M Flash + 64M
- ABS+PC
- DC 24V Input

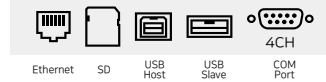


7"



KTS72070iE

- 800x480
- 65536 Colors
- 450 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC
- 128M Flash + 64M
- ABS+PC
- DC 24V Input



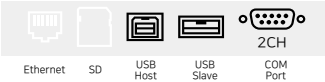
K series (economy type)

9.7"



KTS72097C

- 1024x768
- 65536 Colors
- 350 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC
- 128M Flash + 64M
- ABS+PC
- DC 24V Input

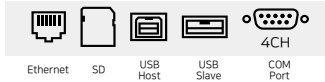


9.7"



KTS72097iE

- 1024x768
- 65536 Colors
- 350 cd/m² Brightness
- resistive touch screen
- 32 Bit 400MHz RISC
- 128M Flash + 64M
- ABS+PC
- DC 24V Input

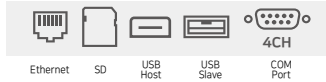


7"



K007

- 1024*600
- 24 bit color
- Capacitive touch screen
- 600MHz ARM Cortex-A8
- 128MB Flash + 128MB DDR3
- ABS+PC
- DC 24V Input

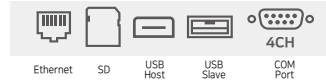


9.7"



K010

- 1024*678
- 24 bit color
- Capacitive touch screen
- 600MHz ARM Cortex-A8
- 128MB Flash + 128MB DDR3
- ABS+PC
- DC 24V Input



KTS Guide to Selection

Series	KTS 11		KTS 9									KTS 7			K				
	7"	9.7"	4.3"	7"			8"	9.7"	10.4"	12.1"	15"	4.3"	7"		9.7"	7"	9.7"		
Model	3070H	3097X	2043W	2070	2070E	2070V	2080S	2097X	2104S	2121X	2150X	2043C	2070C	2070i	2070iE	2097C	2097iE	K007	K010
USB	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SD card	●	●		●	●	●		●		●	●		●		●		●	●	●
Ethernet	●	●			●	●	●	●	●	●	●				●		●	●	●
Video						●													

KTS11 Series

- Capacitive
- Aluminum, Steel enclosure
- IPS Full LCD
- Capacitance sensitive



KTS9 Series

- Video Support
- Aluminum, Steel enclosure



KTS7 Series

- Economic
- PC+ABS Enclosure



K Series

- Capacitive
- Economic type
- Easy installation without separate bracket



Touch Screen

KTS11 Series



Model	KTS113070H	KTS113097X
Display Type	7" 16:9 TFT LCD. Full view	9.7" TFT LCD. Full view
Resolution (W x H)	1024 x 800	1024 x 768
Colors	65536	
Brightness	600 cd/m ²	420 cd/m ²
Backlight	LED	
Backlight Life Cycle	50000 Hours	
Touch Panel	Glass + Glass projective multi-touch capacitive HMI	
CPU	600MHz ARM Cortex 8	
Memory	256M Flash + 256M DDR2 DRAM	
RTC	Built in	
Ethernet	10M/100M Base	
SD Card	Included	
USB Port	USB Host 2.0" X 1EA , USB Device 1.0" X 1EA	
Program Download	USB Host / USB Device	
COM Port	COM0/COM1 : RS232C/RS485/RS422, COM2 : RS232, COM3 : RS232	
Power Consumption	Max. 10W	
Input Voltage	24VDC, Input Range : 9~30VDC	24VDC, Input Range : 18~30VDC
Power Protection	Protected from thunder strike and surging	Isolated power supply, Protected from thunder strike and surging
Power Down Allowed	Max. 5mS	
Certification	EN61000-6-2:2005, EN61000-6-4:2007, ROHS / Surge Immunity : ±4KV, EFT : ±4KV, ESD : 4KV, Air : 8KV	
Operation Temperature	-20 ~ 70°C	
Storage Temperature	-30 ~ 85°C	
Operation Humidity	10~90% RH (with no icing)	
Vibration Endurance	10 ~ 25 Hz (X/Y/Z 2G/30 Minute)	
Cooling	Natural air cooling	
Degree of Protection	Front : IP65, Rear : IP20	
Material of Body	Front Cover : Aluminum, and the surface with hard oxide treatment Rear Cover : Steel and the surface with baking finish treatment	
Panel cut-out	185 X 123mm	230 x 180mm
Dimension	204 x 145 x 38mm	247 x 197 x 31mm
Weight	Approx. 1000g	Approx. 1100g

Touch Screen

KTS9 Series



Model	KTS92043W	KTS92070	KTS92070E	KTS92070V
Display Type	4.3" TFT LCD	7" TFT LCD		
Resolution (W x H)	480 x 272	800 x 480		
Colors	65536			
Brightness	300 cd/m ²	450 cd/m ²		
Backlight	LED			
Backlight Life Cycle	50000 Hours			
Touch Panel	4 wires resistive Touch Screen			
CPU	32 Bit 400Mhz RISC	32 Bit 400Mhz RISC ARM926EJ		32 Bit 600Mhz RISC CORTEX A8
Memory	128M Flash + 64M DDR2 DRAM			256M Flash + 256M DDR2 DRAM
RTC	Built in			
Ethernet	NA	NA	10M/100M Base	
SD Card	NA	Built in	Built in	
USB Port	USB Host 2.0" X 1EA , USB Device 1.0" X 1EA			
Program Download	USB Host / USB Device			
COM Port	COM0 : RS232C/RS485/RS422, COM1 : RS485	COM0/COM1 : RS232C/RS485/RS422, COM2 : RS232, COM3 : RS232		
Power Consumption	Max. 5W	Max. 8W		
Input Voltage	24VDC Input Range : 9~32VDC	24VDC Input Range : 18~32VDC		
Power Protection	Protected from thunder strike and surging	Isolated power supply, Protected from thunder strike and surging		
Power Down Allowed	Max. 5mS			
Certification	EN61000-6-2:2005, EN61000-6-4:2007, ROHS / Surge Immunity : ±4KV, EFT : ±4KV, ESD : 4KV, Air : 8KV			
Operation Temperature	-20~ 70°C			
Storage Temperature	-30~ 80°C			
Operation Humidity	10~90% RH (with no icing)			
Vibration Endurance	10 ~ 25 Hz (X/Y/Z 2G/30 Minute)			
Cooling	Natural air cooling			
Degree of Protection	Front : IP65, Rear : IP20			
Material of Body	Front Cover : Aluminum, and the surface with hard oxide treatment, Rear Cover : Steel and the surface with baking finish treatment			
Panel cut-out	120 x 93mm	192 x 138mm		
Dimension	128 x 102 x 32mm	200 x 146 x 40mm		
Weight	Approx. 500g	Approx. 800g		

Touch Screen

KTS9 Series

Model	KTS92080S	KTS92097X	KTS92104S	KTS92121X	KTS92150X
Display Type	8" 4:3 TFT LCD	9.7" 4:3 IPS LCD	10.4" 4:3 TFT LCD	12.1" 4:3 TFT LCD	15" 4.3 TFT LCD
Resolution (W x H)	800 × 600	1024 × 768	800 × 600	1024 × 768	1024 × 768
Colors	65536				
Brightness	300 cd/m ²	420 cd/m ²	300 cd/m ²	500 cd/m ²	400 cd/m ²
Backlight	LED				
Backlight Life Cycle	50000 Hours				
Touch Panel	4 wires resistive Touch Screen				
CPU	32 Bit 400Mhz RISC ARM926EJ / 32 BIT 600MHz RISC CORTEX A8				
Memory	128M Flash + 64M DDR2 DRAM / 256M Flash + 256M DDR2 DRAM				
RTC	Built in				
Ethernet	10M/100M Base	10M/100M Base	10M/100M Base	10M/100M Base	10M/100M Base
SD Card	Built in	Built in	NA	NA	NA
USB Port	USB Host 2.0" X 1EA , USB Device 1.0" X 1EA				
Program Download	USB Host / USB Device				
COM Port	COM0/COM1 : RS232C/RS485/RS422, COM2 : RS232, COM3 : RS232				
Power Consumption	Max. 10W	Max. 10W	Max. 15W		
Input Voltage	24VDC Input Range : 18~32VDC				
Power Protection	Isolated power supply, Protected from thunder strike and surging				
Power Down Allowed	Max. 5mS				
Certification	EN61000-6-2:2005, EN61000-6-4:2007, ROHS / Surge Immunity : ±4KV, EFT : ±4KV, ESD : 4KV, Air : 8KV				
Operation Temperature	-10~ 60°C				
Storage Temperature	-20~ 70°C				
Operation Humidity	10~90% RH (with no icing)				
Vibration Endurance	10 ~ 25 Hz (X/Y/Z 2G/30 Minute)				
Cooling	Natural air cooling				
Degree of Protection	Front : IP65, Rear : IP20				
Material of Body	Front Cover : Aluminum, and the surface with hard oxide treatment, Rear Cover : Steel and the surface with baking finish treatment				
Panel cut-out	224 × 162mm	232 × 182mm	260 × 202mm	291 × 219mm	360 × 272mm
Dimension	235 × 171.6 × 38.2mm	245 × 190 × 31mm	275 × 215 × 39.6mm	310 × 240 × 48.5mm	394 × 297 × 48.3mm
Weight	Approx. 1000g	Approx. 1100g	Approx. 1500g	Approx. 2200g	Approx. 2500g

Touch Screen

KTS7 Series



Model	KTS72043C	KTS72070C	KTS72070i	KTS72070iE	KTS72097C	KTS72097iE
Display Type	4.3" TFT LCD	7" TFT LCD			9.7 TFT LCD	
Resolution (W x H)	480 × 272	800 × 480			1024 × 768	
Colors	65536					
Brightness	300 cd/m ²	450 cd/m ²			350 cd/m ²	
Backlight	LED					
Backlight Life Cycle	50000 Hours					
Touch Panel	4 wires resistive Touch Screen					
CPU	32 Bit 400Mhz RISC					
Memory	128M Flash + 64M DDR2 DRAM					
RTC	Built in					
Ethernet	NA	NA	NA	10M/100M Base	NA	10M/100M Base
SD Card	NA	NA	Built in	Built in	NA	Built in
USB Port	USB Host 2.0 X 1 , USB Device 1.0 X 1					
Program Download	USB Host / USB Device			USB Host / USB Device Ethernet	USB Host / USB Device	USB Host / USB Device Ethernet
COM Port	COM0 : RS232/RS485/RS422 COM1 : RS485		COM0/COM1 : RS232C/RS485/RS422 COM2 : RS232 COM3 : RS232		COM0 : RS232/RS485/RS422 COM1 : RS485	COM0/COM1 : RS232C/RS485/ RS422 COM2 : RS232 COM3 : RS232
Power Consumption	Max. 5W	Max. 8W			Max. 10W	
Input Voltage	24VDC Input Range : 9~30VDC		24VDC Input Range : 18~30VDC		24VDC Input Range : 9~30VDC	
Power Protection	Isolated power supply, Protected from thunder strike and surging		Isolated power supply, Protected from thunder strike and surging		Isolated power supply, Protected from thunder strike and surging	
Power Down Allowed	Max. 5mS					
Certification	EN61000-6-2:2005, EN61000-6-4:2007, ROHS		Surge Immunity : ±4KV, EFT : ±4KV, ESD : 4KV, Air : 8KV			
Operation Temperature	0~ 50°C					
Storage Temperature	-20~ 60°C					
Operation Humidity	10~90% RH (with no icing)					
Vibration Endurance	10 ~ 25 Hz (X/Y/Z 2G/30 Minute)					
Cooling	Natural air cooling					
Degree of Protection	Front : IP65, Rear : IP20					
Material of Body	ABS + PC					
Panel cut-out	120 × 93mm	192 × 138mm			259 × 201mm	
Dimension	128 × 102 × 32mm	204 × 145 × 44.5mm			276 × 213 × 39mm	
Weight	Approx. 500g	Approx. 650g			Approx. 1000g	

Touch Screen

K Series



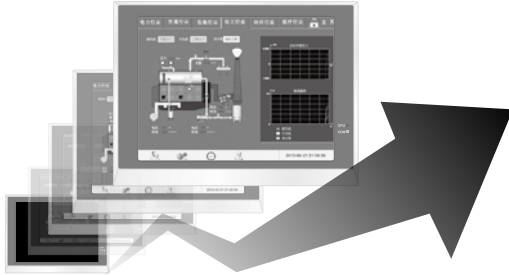
Model	K007	K010
Display Type	7"16:9 TFT LCD	9.7"4:3 TFT LCD
Resolution (W x H)	1024 × 600	1024 × 768
Colors	24 bit color	
Brightness	450 cd/m ²	350 cd/m ²
Backlight	LED	
Backlight Life Cycle	50000 Hours	
Touch Panel	Glass + Glass projective multi-touch capacitive HMI	
CPU	600MHz ARM Cortex-A8	
Memory	128MB Flash + 128MB DDR3	
RTC	Built in	
Ethernet	10M/100M Ethernet	
SD Card	Built in	
USB Port	USB Host 2.0 x 1 , USB Device 2.0 x 1	
Program Download	USB Host / USB Device / SD Card / Ethernet	
COM Port	COM1 : RS232/RS485/RS422 COM2/COM4 : RS485 COM3 : RS232	
Power Consumption	Max. 5W	Max. 7W
Input Voltage	24VDC Input Range : 9~28VDC	
Power Protection	Isolated power supply, Protected from thunder strike and surging	
Power Down Allowed	Max. 2mS	
Certification	EN61000-6-2:2005, EN61000-6-4:2007, ROHS Surge Immunity : ±1KV, EFT : ±2KV, ESD : 4KV, Air : 8KV	
Operation Temperature	-20~60°C	0~50C
Storage Temperature	-20~70°C	-20~60°C
Operation Humidity	10~90% RH (with no icing)	
Vibration Endurance	10 ~ 25 Hz (X/Y/Z 2G/30 Minute)	
Cooling	Natural air cooling	
Degree of Protection	Front : IP65, Rear : IP20	
Material of Body	ABS + PC	
Panel cut-out	178 × 125mm	232 × 180mm
Dimension	185.1 × 131.1 × 30mm	247 × 197 × 31.5mm
Weight	Approx. 650g	Approx. 1000g

Touch Screen

KTS Series

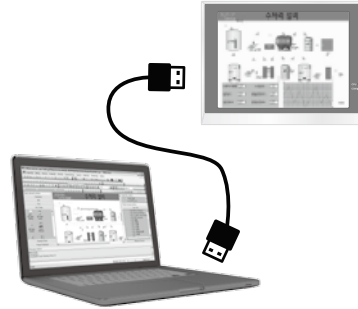
Faster booting speed

- 600MHz ARM Cortex 8 processor ensures faster booting speed.



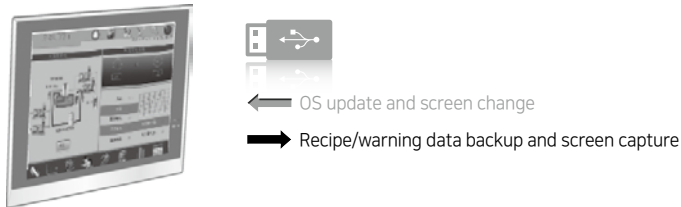
Drawing data transfer

- Fast and easy data transfer via the USB cable port.



Use of USB flash drives

- Simple drawing data upload/download and operating system update do not require a PC
 - ① Drawing file
 - ② OS file
 - ③ Font file
 - ④ Recipe/logging data

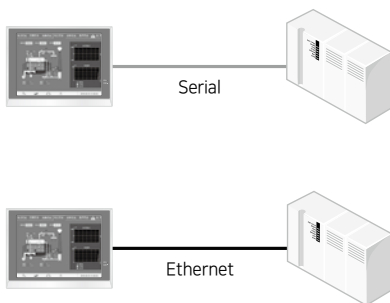


Example of System Configuration

- Diverse interface functions can be used to extend the range of applicable devices.

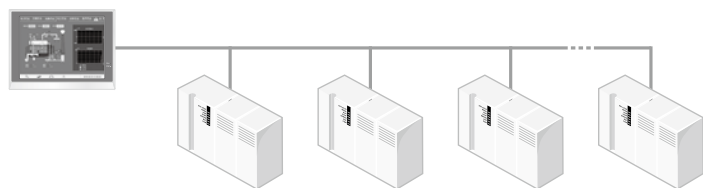
1:1 Serial / Ethernet Communication

single KTS and single PLC.



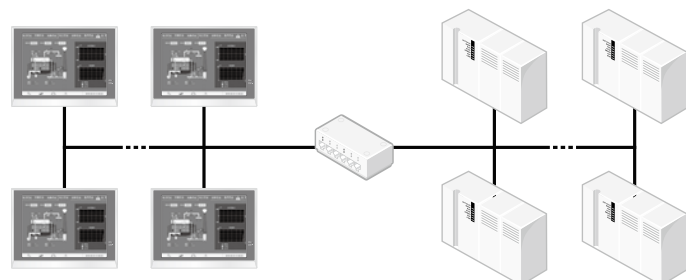
1:N Serial Communication

single KTS and multiple PLC.



N:M Ethernet Communication

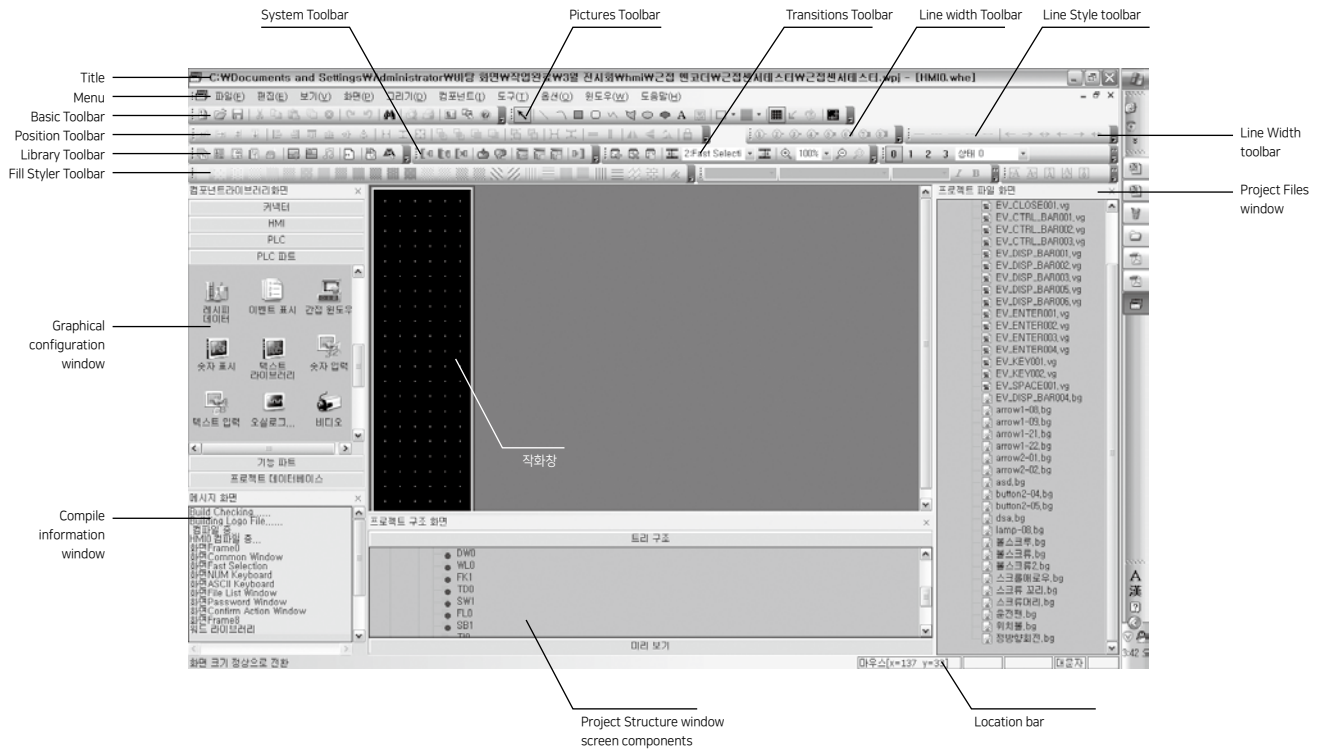
multiple KTS and multiple PLC.



Touch Screen

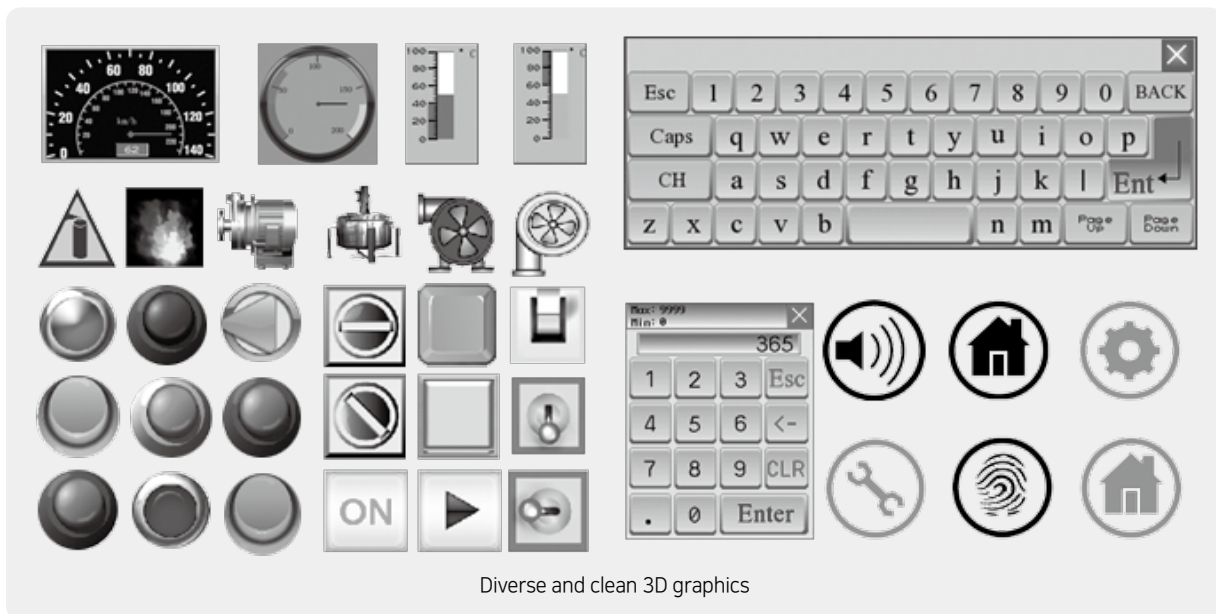
KTS Series

User Interface



This free drawing program to quickly and easily express

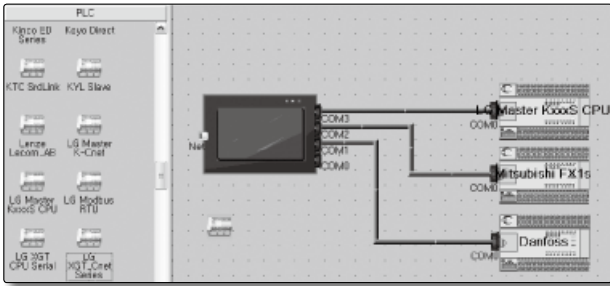
Bitmap



Diverse and clean 3D graphics

Simple drawing

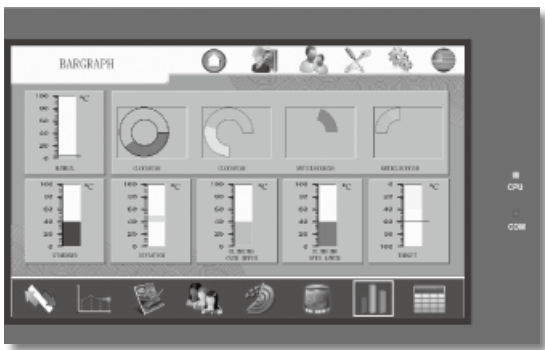
- HMI and PLC settings, and all the graphical, just drag device, add, delete, and can be easily executed.



- Various switches and meta-groups moved by dragging the drawing screen and set the parameters and characteristics.

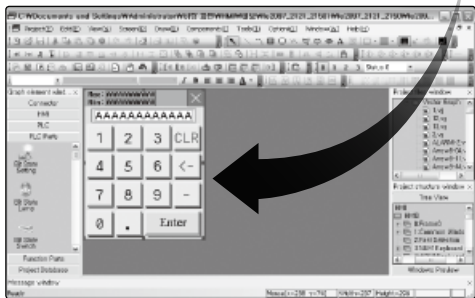


- Online and off-line simulation has fix errors capabilities in advance, running on a computer screen and that can run program on computer.



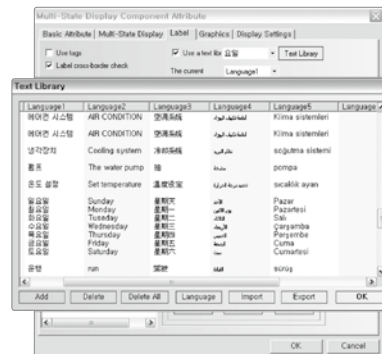
Majority of the program window

- Able to open the window at the same time a large number of programs. so Utilizing the existing programs, it can proceed more quickly and easier editing.



Convert multiple languages

- multiple languages using the language table can be expressed freely.



Touch Screen

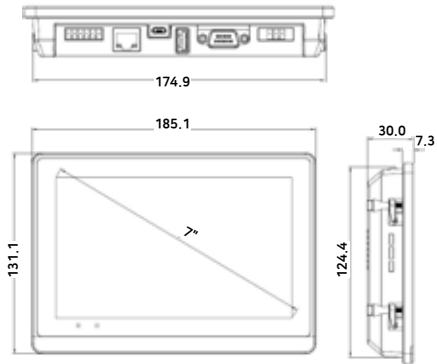
KTS Series

Dimension

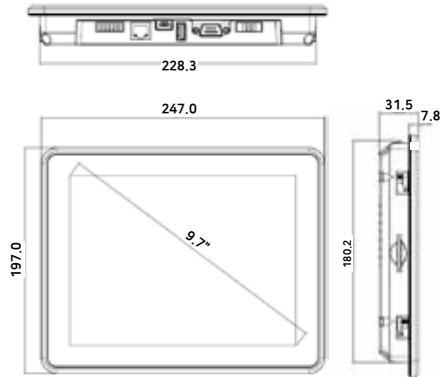
unit : mm

K Series

K007

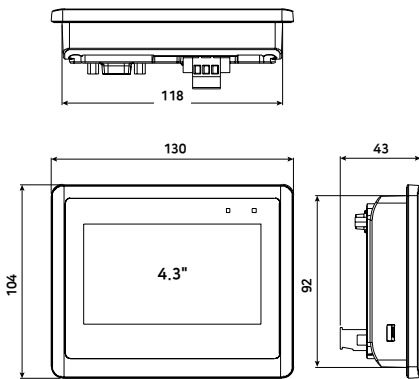


K010

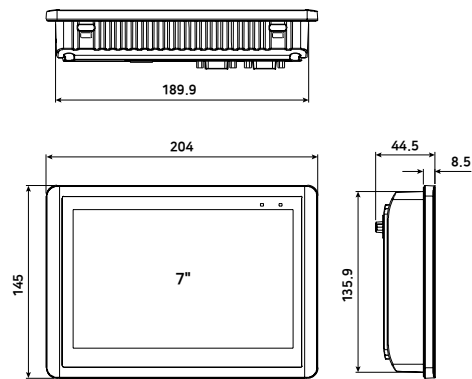


KTS 7 Series

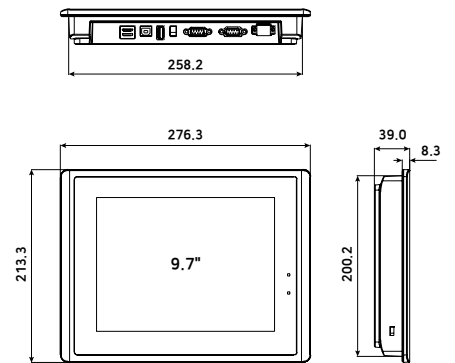
KTS72043C



KTS72070C, KTS72070i, KTS72070iE



KTS72097C, KTS72097iE

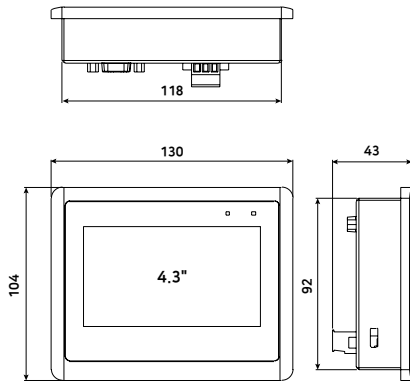


Dimension

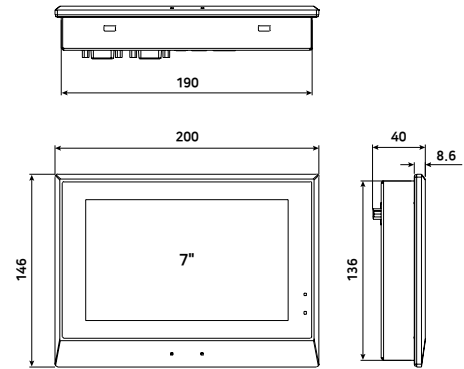
unit : mm

KTS 9 Series

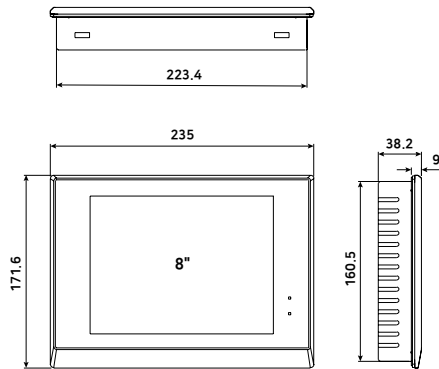
KTS9043W



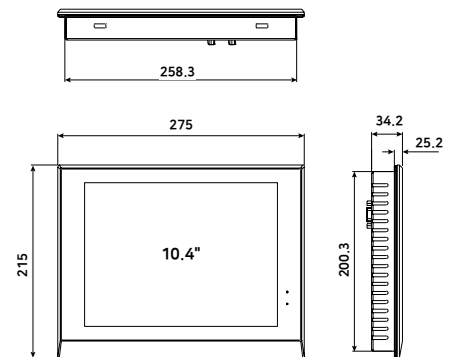
KTS9070 / KTS9070E / KTS9070V



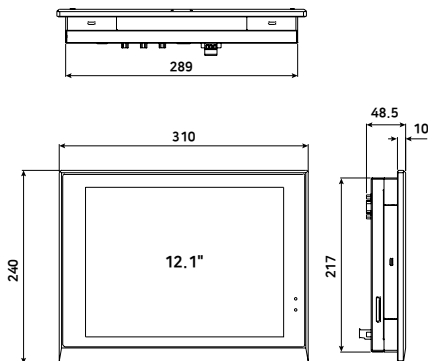
KTS9080S



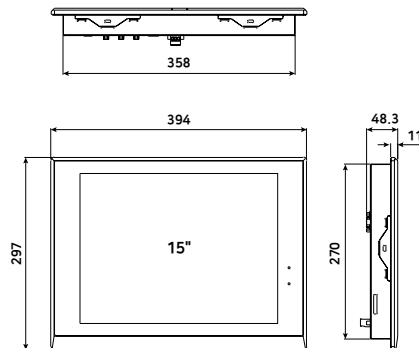
KTS9104S



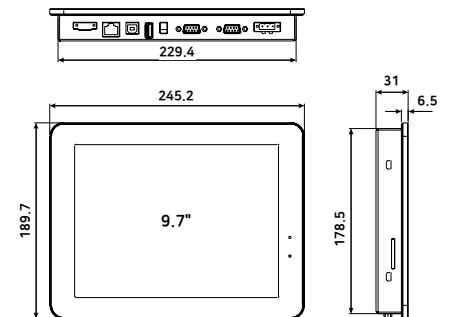
KTS9121X



KTS9150X



KTS92097X



Touch Screen

KTS Series

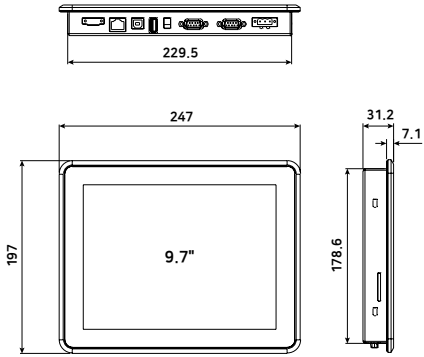
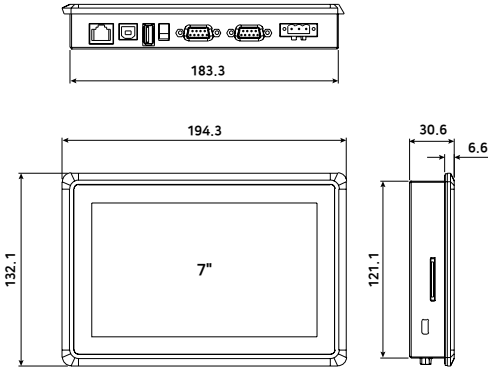
Dimension

unit : mm



















KTS 11 Series

KTS113070H

KTS113097X



Connection Device

 Allen-Bradley CompactLogic/ ControlLogix DF1 EtherNet/IP Slave	 AC31 Modbus RTU AC500	 BOSCH Rexroth Rexroth Ethernet Rexroth KVFC+	 DVP DTA/DTB/DTC	 Fanuc Series SNP SNP-X	 KV-1000 KV-16DT KV-3000 KV-3000 EnhancedVer KV-5000 EtherNet Slave
 Master K-Cnet Master KxxxS CPU Modbus RTU XGT CPU Serial XGT Cnet Series	Matsushita FP	 C Series Host Link CJ Series Ethernet Slave CJ/CS Series Host link CP Series Host Link CPM1AH_CPM2AH E5EZ-R3	 Modicon Uni-Telway Twido Modbus RTU	SIEMENS S7-1200 Ethernet (TPC Slave) S7- 200 S7- 200 Network Slave S7- 300 Network Slave S7- 300/400 (PC Adapter)	 EMERSON EC10 EC20
Koyo Direct	 NX7	 ASCII LS Inverter RTU RTU Extend RTU MT500 compatible RTU Slave TPC Slave UDP Slave	 ACR9000 Serial Compax3 SLVD Series	 FX0N/1N/2N FX1s FX2N-10GM/20GM FX3u FX-485ADP/422BD (Multi-station)	Melsec Q Q Series (CPU Port) Q_QnA (Link Port) Q00J (CPU Port) Q06H QJ71E71 Ethernet slave
 AH Modbus RTU MP 2300 SGDM UDP Slave	Facon FB	 SPB	HITACHI SJ300	Kinco ED Series	Panasonic AFPX-COM5 Ethernet Slave
 CH402	Saia Sbus	 FP23	YOKOGAWA ◆ FA-M3 FA-M3 Ethernet Slave		
Free Protocol	Lenze	PHARMA	Vigor	CAN	CANOpen