

# Touch 8104T

10.4" color TFT LCD Touch-Display (support Modbus TCP/IP)



**Touch 8104T**

### Highlight Information

- 10.4" , 640x480, 65536 color TFT LCD
- Support Modbus TCP/IP
- Fan-less Cooling System
- Built-in Flash Memory and RTC
- NEMA4/IP65 Compliant Front Panel
- One CompactFlash™ Slot

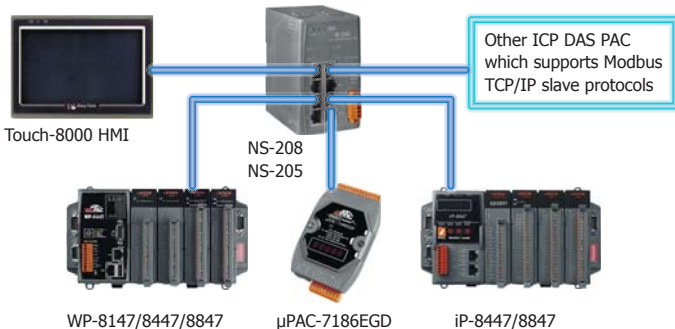
Touch Human Machine Interface Touch 8104T

## ● Introduction

The Touch-8000 series HMI supports Modbus TCP/IP master protocols via its Ethernet port and Modbus RTU master protocol via its RS-232 and RS-485 ports. Touch-8000 can link to the ICP DAS Modbus PACs and M-7000 I/O Modules easily. For example, it can link to the uPAC-7186EG and iP-8447/8847 and WP-8147/8447/8847 and I-7188XG and M-7018z or other ICP DAS PAC which supports the Modbus TCP/IP slave or Modbus RTU slave protocols.

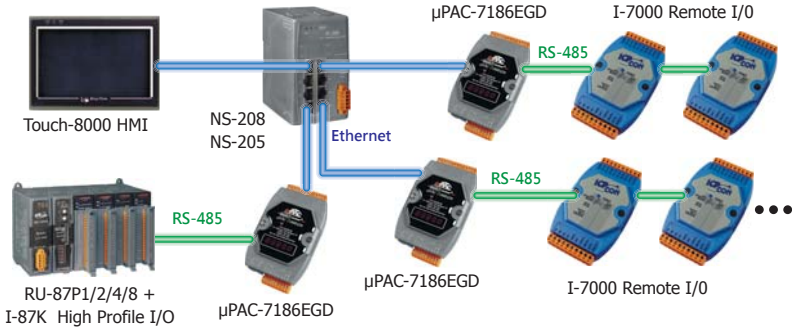
## ● Applications

- Integrating with ICP DAS ISaGRAF PAC and / or Modbus PAC via Ethernet.

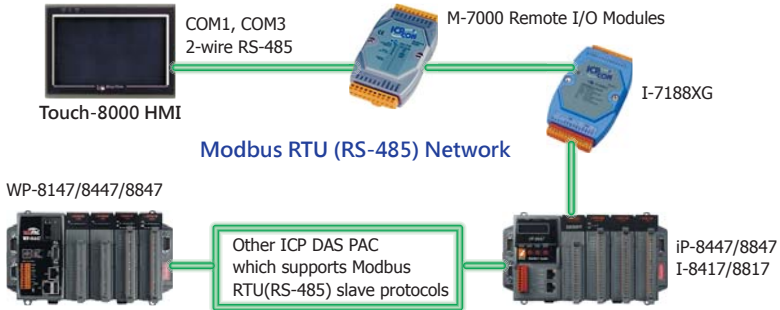


## ● Applications

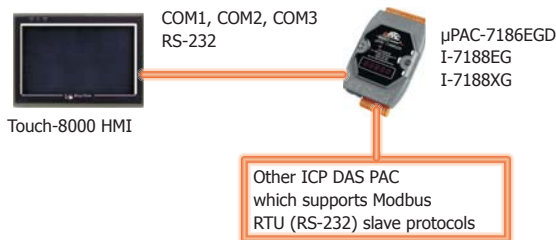
- Integrating with  $\mu$ PAC-7186EG plus I-7000 (and RU-87Pn + I-87K High Profile) Remote I/O Modules



- Integrating with ICP DAS PAC and / or M-7000 Remote I/O Modules via RS-485



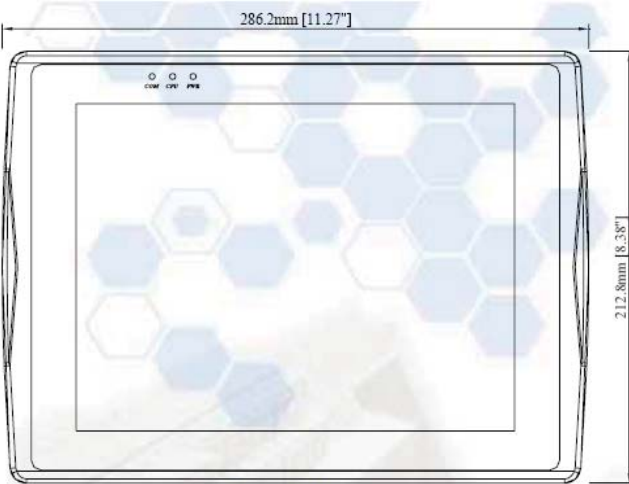
- Integrating with ICP DAS PAC via RS-232



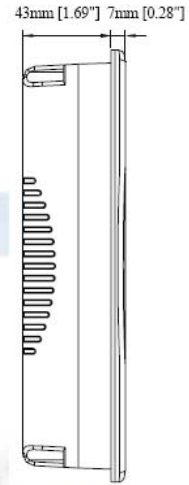
## ● Specifications

Models	Touch 8104T
<b>General Specifications</b>	
Construction	Plastic molding housing
Display	10.4" , 640x480, 65536 color TFT LCD
CPU and Core Logic	32-bit RISC processor
DRAM	64 MB on-board
Storage	32 MB flash memory on-board
Ethernet	1 Ethernet Port (10/100 Base-T) , supports Modbus TCP/IP protocols
Serial Ports	Support Modbus RTU / ASCII protocols
	● COM1: RS-232 , or RS-485 (2-wire / 4-wire)
	● COM2: RS-232
USB Ports	● COM3: RS-232 , or RS-485 (2-wire)
	3 USB 2.0 full-speed host (12 Mbps)
RTC	Built-in
Power Input	24 V <sub>DC</sub> , 440 mA maximum
Dimension (W x H x D)	286 x 212 x 50 mm
Weight	Approx. 1.5 kg
Software	EasyBuilder-8000 Ver.1.3.4 or later
<b>General Environment</b>	
Operating Temperature	0 ~ 45 °C (14 ~ 113 °F)
Relative Humidity	10 ~ 90 % @ 40 °C, non-condensing
EMI	Complies with FCC class A
CE	Complies with EN50081-2 and EN50082-2 standards
Front panel meets NEMA4 / IP65	
<b>LCD Display</b>	
Display Type	TFT LCD
Display Size (diagonal)	10.4"
Max. Colors	65536
Resolution	640 x 480
Pixel Pitch (HxV, mm)	0.33 x 0.33
Viewing Angle (°)	35/45/55/55 (T/B/R/L)
Luminance (cd/m <sup>2</sup> )	400
Backlight	CCFL x 2
Backlight Life Time	40,000 hrs. (Can be turned-off while no operation on it)
Contrast Ratio	300:1
<b>Touch Screen</b>	
Type	4-wire, analog resistive
Resolution	Continuous
Light Transmission	Above 80 %
Life	1 million activation minimum

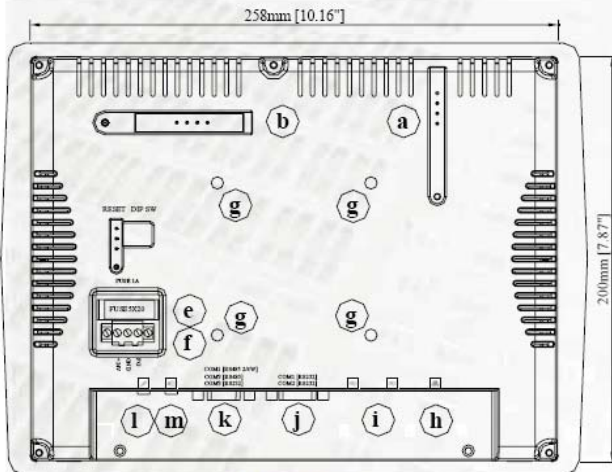
● Dimensions (Unit: mm)



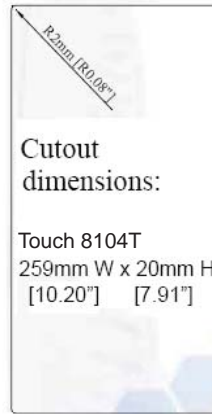
Front View



Side View



Rear View



Cutout dimensions:

Touch 8104T  
259mm W x 20mm H  
[10.20"] [0.791"]

a.	CompactFlash Slot	h.	Ethernet Port
b.	N/A	i.	USB Host
c.	DIP Switch	j.	COM1 (RS-232), COM2 (RS-232)
d.	Reset Button		COM3 (RS-232)/(RS-485)
e.	Fuse	k.	COM1 (RS-485, 4/2w)
f.	Power Terminal	l.	N/A
g.	VESA 75 mm Screw Holes	m.	N/A

## ● Pin Assignment

### RS-485

Recommend connect no more than 7 controllers or M-7000 in each RS-485 connection. The more connected, the slower communication rate.

**Touch-8000 COM1: RS-485 ICP DAS controller or M-7000 ICP DAS controller or M-7000**

2 Data + _____	Data + _____	Data + _____
1 Data - _____	Data - _____	Data - _____

**Touch-8000 COM3: RS-485 ICP DAS controller or M-7000 ICP DAS controller or M-7000**

9 Data + _____	Data + _____	Data + _____
6 Data - _____	Data - _____	Data - _____

### RS-232

Only one controller can be connected by the RS-232 cable.

**Touch-8000 COM1: RS-232 ICP DAS controllers**

2 RxD _____	TxD _____
3 TxD _____	RxD _____
5 GND _____	GND _____
7 RTS _____	
8 CTS _____	

**Touch-8000 COM2: RS-232 ICP DAS controllers**

6 RxD _____	TxD _____
4 TxD _____	RxD _____
5 GND _____	GND _____
7 RTS _____	
8 CTS _____	

**Touch-8000 COM3: RS-232 ICP DAS controllers**

8 RxD _____	TxD _____
7 TxD _____	RxD _____
5 GND _____	GND _____

## ● Ordering Information

Touch 8104T	Human Machine Interface with 10.4" color TFT LCD Touch-Display (support Modbus TCP/IP)
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## ● Accessories

<b>Ethernet Switch</b>	
NS-205 CR	Unmanaged 5-port Industrial Ethernet Switch (RoHS)
NS-208 CR	Unmanaged 8-port Industrial 10/100 Base-T Ethernet Switch (RoHS)
<b>Remote I/O Modules</b>	
M-7000	M-7000 Series Remote I/O Modules (support Modbus RTU and DCON protocols)
I-7000	I-7000 Series Remote I/O Modules (support DCON protocols)
I-87K High Profile I/O	I-87K Series High Profile I/O Modules
<b>InduSoft Runtime License</b>	
RU-87P1/2/4/8 CR	Remote Intelligent I/O Expansion Unit ( It used to expand I-87K series I/O modules over the RS-485 )
<b>ISaGRAF PAC</b>	
μPAC-7186EG	Advanced Ethernet ISaGRAF Palm-Size PAC (80186, 80 MHz, 10/100 Base-TX )
WP-8x47	Ethernet ISaGRAF PAC ( PXA270 CPU, 520 MHz, Dual-LAN: 10/100 Mbps)
iP-8x47	Advanced Ethernet ISaGRAF PAC (80186, 80 MHz, Dual-LAN: 10/100 Mbps)

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