

The Pioneer of Automation industry

New Generation Display Technology

All can be found in Delta



TP04G-AS2
TP02G-AS1



TP Series Terminal Panels



TP04G-AS2

- ▲ 3.00" (67 x 32mm) STN LCD, Monochromatic
- ▲ 32K Bytes RAM
- ▲ 128 x 64 dots of resolution
- ▲ 258K Flash Memory
- ▲ 5 programmable function keys, 4 movement keys (up, down, left and right), an Enter key, a Shift key and an Escape key
- ▲ Backlight auto turn off setting
- ▲ Provide "Program Copy Card" function: Save download time
- ▲ Backlight life is about 50 thousand hours
- ▲ 2 Comm. Ports. It can communicate with different communication protocols simultaneously.
- ▲ Built-in various screen objects include graphs, charts, buttons, text and users own bmp files.
- ▲ UL and CE approved



TP02G-AS1

- ▲ STN LCD, Monochromatic
- ▲ 32K Bytes RAM
- ▲ 160 x 32 dots of resolution
- ▲ 258K Flash Memory
- ▲ 10 programmable function keys, 4 movement keys (up, down, left and right), an Enter key and an Escape key
- ▲ Backlight auto turn off setting
- ▲ Power, Communication, Alarm LED
- ▲ 2 Comm. Ports. It can communicate with different communication protocols simultaneously.
- ▲ Provide "Program Copy Card" function: Save download time
- ▲ Support multi-languages display
- ▲ UL and CE approved

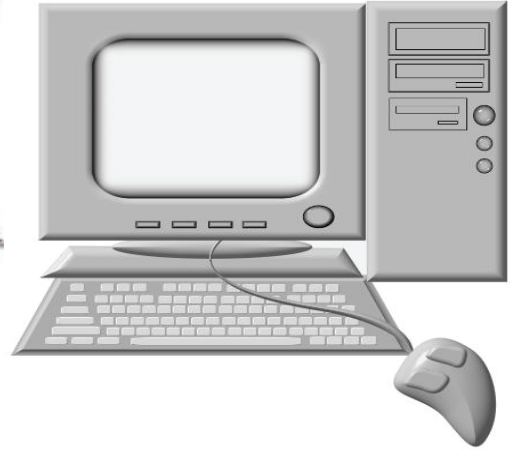
Hardware Specifications

Models	TP04G-AS2	TP02G-AS1
Resolution	128 x 64 dots	160 x 32 dots
Flash Memory	256K Bytes	256K Bytes
SRAM	32K	32K
Function Keys	Total 9 function keys + Enter key + Shift key + Escape key	Total 14 function keys + Enter key + Escape key
Communication Interface	COM1 / COM2	COM1 / COM2
5-Pin Removal Terminal	DC24V / RS485	DC24V / RS485
Maximum words x rows, for each font size	16 words x 4 rows	16 words x 2 rows
LED Indicators	Arm / Com / Power	Arm / Com / Power
CPU	HitachiHD64F3064F	HitachiHD64F3064F
Waterproof for front panel	IP65 / NEMA4	IP65 / NEMA4

System Configuration



RS-232 & Upload and Download / RS-422

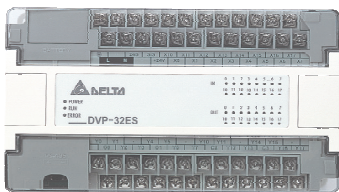


PCC Card Save backup data



(COM2: RS485)

(RS485)



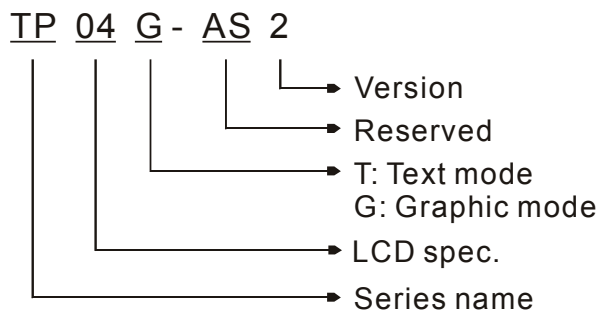
Customer Request Form

Referring to the following table, customers can discuss with our sales people and FAE to define the most suitable specification and function to meet customers' demand.

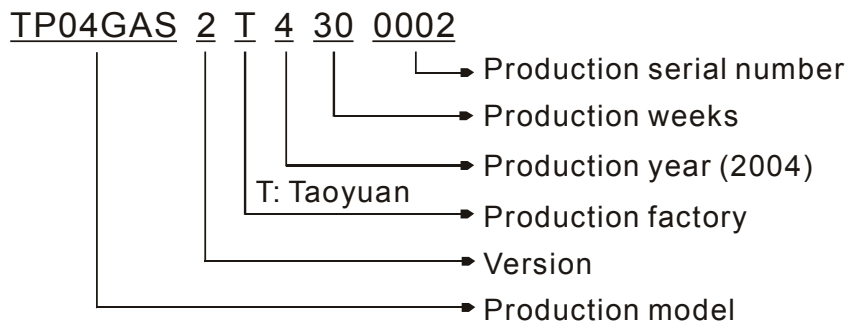
Item	Requirement Record	Customer _____ Date _____
1. Proposed system	New system <input type="checkbox"/> System name _____	Old system <input type="checkbox"/> Brand of used product _____
2. FLASH:	<input type="checkbox"/> 256K BYTES <input type="checkbox"/> Others _____ SRAM: <input type="checkbox"/> 32K BYTES <input type="checkbox"/> Others _____	
3. Display size:	<input type="checkbox"/> 67 x 32 mm) <input type="checkbox"/> 72x 22 mm <input type="checkbox"/> Others _____	
4. Screen type:	<input type="checkbox"/> Monochromatic STN LCD <input type="checkbox"/> Others _____	
5. Resolution:	<input type="checkbox"/> 128 x 64 dots <input type="checkbox"/> 160 x 32 dots <input type="checkbox"/> Others _____	
6. Communication port:	<input type="checkbox"/> COM1 (RS-232/RS-422), RS-232 is for USB upload / download <input type="checkbox"/> COM2 (RS485) <input type="checkbox"/> Others _____	
7. Function key:	<input type="checkbox"/> 9 Keys <input type="checkbox"/> 14 Keys <input type="checkbox"/> Others _____	
8. Program Copy Card:	<input type="checkbox"/> PCC Card <input type="checkbox"/> Others _____	

Ordering Information

Model Explanation



Serial Number Explanation



Competitors Comparison

Brand	Delta DOP	Smart-face	Hitachi	Schneider	LG	Sematic
Model	TP04G-AS2	F-200	PWS500	Magelis XBT-N400	XP10BKA/DC	TD200
Display Size (mm)	67 × 32	66 × 33	67 × 32	72 × 20	94 × 19	76 × 28
Display Color	Monochromatic STN LCD	Monochromatic STN LCD	Monochromatic STN LCD	Backlit LCD	LCD	Monochromatic STN LCD
Resolution (dots)	128 x 64	128 x 64	160 x 80	122 x 32	192 × 64	181 × 33
Flash Memory	256K	640K	640K	-	256K	128K
Communication Interface	COM1(RS-232/422) COM2(RS-485)	(RS-232/485)	COM2 (RS-232)	RS-232 TO PC RS-232/485 TO PLC	COM1(RS-232) COM2(RS-422/ 485)	PROFIBUS
Program Copy Card	PCC	N/A	N/A	N/A	N/A	N/A
Function Keys	9	8	7	8	12	9
Language Support	Traditional Chinese, Simplified Chinese, English	Traditional / Simplified Chinese, English	Traditional / Simplified Chinese, English	English	Simplified Chinese, English, Korean	N/A
Others	-	-	-	PRINT	-	PRINT

Competitors Comparison

Brand	RELION	Omron	e-View	Shanghai Power	XINJE
Model	G303	MPT-200	MD204L	POP-HMI	OP-320
Display Size	3.2 inches	94 × 19 mm	4.3 inches	104 × 39 mm	3.7 inches
Display Color	FSTD-LCD	LCD	LCD	LCD	LCD
Resolution (dots)	128 x 64	160 x 32	192 x 64	192 x 64	192 × 64
Flash Memory	4M	-	64K	512K	1M
Communication Interface	RS-232 TO PC RS-232/485 TO PLC USB/ENET	COM1(RS-232) COM2(RS-485)	COM1(RS-232) COM2(RS-485/422)	COM(RS-232/ 422/485)	RS-232 TO PC RS-232/422 TO PLC
Memory Card	CF	N/A	N/A	N/A	N/A
Function Keys	32	8	20	22	7
Language Support	English	Traditional / Simplified Chinese, English	English, Japanese, Chinese	Traditional / Simplified Chinese, English	Simplified Chinese, English
Others	-	-	-	-	-

Q & A

Q1. How to buy Delta TP series products and how get technical support when the customers have technical problems?

In Taiwan, the customers can contact the distributors as below for product information or place order:

ACE PILLAR Co., Ltd.: Taipei 02-2995-8400, Taichung: 04-2358-8577, Tainan: 06-312-0528

Use Electronics Co., Ltd.: Taipei: 02-2393-4825, Taichung: 04-2359-8449, Kaohsiung: 07-281-1126

JI DIEN CO., LTD.: Taipei 02-8522-3237, Tainan: 06-228-0105

Other worldwide sales offices: please see the following table

Area	Contact Window	E-Mail
Taiwan	Alex.Chen	alex.cc.chen@delta.com.tw
North America	Michael Carson	Mcarson@deltartp.com
Latin America	Igor Bencomo	ibencomo@deltartp.com
South / Middle Asia		
South East Asia		
Middle East & Africa	Kuo Wen Teh	Kuo@deltas.com.sg
Australia / New Zealand		
China	Brenna Lu	lu.brenna@delta.com.cn
Japan	Linta Chou	linta.chou@dej.co.jp
Europe	Tim C.T.Lee	Tlee@euro.delta-corp.com
South Korea	William Lee	william@deltakor.co.kr

Q2. What is the edit software for TP series products? How do I buy or get it?

The software editor for TP series is called TPEditor. The users can download it for free at our website via the link http://www.delta.com.tw/product/em/hmi/hmi_software.asp.

Q3. Where to get the manuals and documents of the TP series?

The users can download the product manuals and related documents for free at our website via the link http://www.delta.com.tw/product/em/hmi/hmi_manual.asp.

Q4. What controllers compatibly support Delta TP series?

Delta TP series support all the series of Delta electromechanical products, including PLC, AC motor drive, Temperature Control, HMI and Servo system.

Other compatible controllers are listed as follows:

Allen Bradley MicroLogix PLC

Delta Controller

Facon PLC -- FB Series

Koyo -- DL/SU Series

LG -- Master K120S/200S PLC

Mitsubishi -- FX

FX2N

A Series/J71UC24

Modbus --- ASCII (Master)

RTU(Master)

Modicon --- TSX Micro (Uni-TelWay)

NEZA (Uni-TelWay)

Omron --- C Series

TPM1A

Siemens --- S7-200

S7_300_PLC_without_PC_adaptor

S7_300_PLC_with_PC_adaptor

Vigor --- M Series

Q5. How is the upload/download speed of Delta TP series products?

The users can upload and download program via built-in COM ports of Delta TP series products. The maximum upload and download speed can reach 115200 bps.

Q6. Is it possible to simultaneously use different communication protocols when Delta TP series products are connected to other external controllers?

There are two built-in COM ports of Delta TP series products. These two COM ports can be used to control two different communication protocols. COM1 is for RS-232 or RS-422 and COM2 is for RS-485.

Q7. How many languages does Delta HMI software support?

After installing the TPEditor software program, the users can select the desired language. There are Traditional Chinese, Simplified Chinese and English available for selection.



**EC Declaration of Conformity
According to the Low Voltage Directive 73/23/EEC and the
Amendment Directive 93/68/EEC**

For the following equipment:

Human Machine Interface (HMIs)

(Product Name)

TP04G-AS1; TP02G-AS1; TP04G-AS2

(Model Name)

is herewith confirmed to comply with the requirements set out in the Council Directive 73/23/EEC for electrical equipment used within certain voltage limits and the Amendment Directive 93/68/EEC. For the evaluation of the compliance with this Directive, the following standard was applied:

EN 61131-2, IEC60529, IEC60068-2-1, IEC 60068-2-2-2, IEC 60068-2-6 EN 60068-2-6,
IEC 60068-2-14, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-30, IEC 60068-2-32.

The following manufacturer/importer is responsible for this declaration:

Delta Electronics, Inc.

(Company Name)



**EC Declaration of Conformity
According to the Electromagnetic Compatibility 89/336/EEC and
the Amendment Directive 93/68/EEC**

For the following equipment:

Human Machine Interface (HMIs)

(Product Name)

TP04G-AS1; TP02G-AS1; TP04G-AS2

(Model Name)

is herewith confirmed to comply with the requirements set out in the Council Directive 89/336/EEC for electromagnetic compatibility and the Amendment Directive 93/68/EEC. For the evaluation of the compliance with this Directive, the following standard was applied:

EN 61131-2, EN55011, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-5, IEC 61000-4-6

The following manufacturer/importer is responsible for this declaration:

Delta Electronics, Inc.

(Company Name)