

Delta PLC、TP FAQ

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PLC-Specification

1. How the PLC expands its IO points?

Add IO extension module. EX/SS can support to 238 points, SC/SA can support to 236 points, SX can support to 230 points, ES can support to 256 points, EH/SV can support to 512 points.

2. Whether if each channel of 20EX has both voltage and current input? Yes, all have both voltage and current input.

3. What type of analog module is bipolar?

Only DVP-10SX.

4. What types of PLC can output differential signal presently?

DVP32EH00M can do it, and DVP-20PM can not only output differential signal but also support MPG input directly.

5. What types of PLC supports AB phase output?

EH/SA/SC/SX/20PM.

6. What is the limitation of the bandwidth of SC?

The bandwidth of SC pulse output+ counter is 130KHz, and in firmware V1.2 and V1.4 support two axis output pulse at the same time. Y10 is 60k max, and Y11 has to be lower than Y10 and 40k max. So the bandwidth of counters is only 30k, but high speed counter X10 and X11 are not limit by it. High speed counter can reach 100k max and 130k totally.

7. What types of PLC has 200KHz pulse output?

EH (20、32 points)、EH2 (20、32、40 points) and SV.

8. The model name of the communication cable between Delta PLC and PC?

Model name is DVPACAB2A30, pin definition is as below.



9. What kinds of network that Delta PLC support?

Now Delta products have DeviceNet master, slave module, gateway,

Ethernet module, Profibus slave module, Canopen master module, gateway and keep developing other network products.

10. Can the left side extension module be connected to other Slim type series PLC? Or just to SV?

Only SV support left side extension module so far.

11. Can the DVP01PU-H implement interpolation function?

01PU did not support interpolation function, but it can implement variable speed, interrupt speed. If need interpolation function, please choose SV and EH2.

12. What is the special register of DA data of DVP-10SX? What is the resolution?

Device No.	Function
D1056	Present value of AD card channel 0 (CH0)
D1057	Present value of AD card channel 1 (CH1)
D1110	Average value of AD card channel 0 (CH0)
D1111	Average value of AD card channel 1 (CH1)
D1116	DA card channel 0 (CH0)
D1117	DA card channel 1 (CH1)
D1118	Conversion sampling time (ms)

Resolution is 12bit, input/output range is -20~20mA/-10~10V.

13. The interrupt types of Delta PLC?

External interrupt—As external signal input, then interruption would be triggered.

Time interrupt—User can set when to trigger the interruption.

Communication interrupt—Using RS instruction to receive some specific word to trigger interruption.

Counter interrupt—Using HSCS instruction to trigger interruption.

Pulse interrupt—Indicate specific output point and interruption would be triggered as starting output pulse.

14. What are the differences between EH2 and EH, and can they compatible the same extension module?

EH2 do a lot changes on hardware design, it improve the communication

performance between MPU and extension module and need only 1ms. Because the hardware design is different, the module is different, too.

15. The input/output bandwidth of all Delta PLC.

DELTA_PLC input

MPU	Input	Bandwidth	Input	Bandwidth
SS/ES/EX	X0~X1	20KHz	Other	10KHz
SA	X0~X1	30KHz	Other	10KHz
SX	X0~X1	30KHz	Other	10KHz
SC	X0~X1	30KHz	Other	10KHz
	X10~X11	100KHz	-	-
SV	X0~X1、X4~X5	200KHz	Other	10KHz
	X10~X11、X14~X15	20KHz	Other	10KHz
EH/EH2	X0~X1、X4~X5	200KHz	Other	10KHz
	X10~X11、X14~X15	20KHz	Other	10KHz

DELTA_PLC output

MPU	Output	Bandwidth	Output	Bandwidth
SS/ES/EX	Y0	10KHz	Y1	10KHz
SA	Y0	30KHz	Y1	10KHz
SX	Y0	30KHz	Y1	10KHz
SC	Y0	30KHz	Y1	10KHz
	Y10	100KHz	Y11	100KHz
SV	Y0~Y1、Y2~Y3、Y4、Y6	200KHz	Other	10KHz
EH/EH2 (Besides 20、32、40 points)	A11	10KHz	-	-
EH/EH2 (20、32 points)	Y0、Y2	200KHz	Other	10KHz
EH2(40points)	Y0~Y1、Y2~Y3、Y4、Y6	200KHz	Other	10KHz

DELTA_PLC total bandwidth

MPU	Total bandwidth	
SS/ES/EX	40KHz	
SA	40KHz	
SX	40KHz	
SC	first CPU	40KHz
	second CPU	130KHz
SV	20KHz(besides HHSC, only X0~X5)	
EH/EH2	20KHz(besides HHSC, only X0~X5)	

16. What are the executing time of the basic instructions of Delta PLC?

Basic Commands

Command Code	Function	Operands	Execution speed (us)			STEP	Page
			ES	SA	EH		
LD	Load A contact	X, Y, M, S, T, C	5.6	4.6	0.24(0.56)	1~3	3-3
LDI	Load B contact	X, Y, M, S, T, C	5.68	4.68	0.24(0.56)	1~3	3-3
AND	Series connection- A contact	X, Y, M, S, T, C	4.8	3.8	0.24(0.56)	1~3	3-3
ANI	Series connection- B contact	X, Y, M, S, T, C	4.88	3.88	0.24(0.56)	1~3	3-4
OR	Parallel connection- A contact	X, Y, M, S, T, C	4.8	3.8	0.24(0.56)	1~3	3-4
ORI	Parallel connection- B contact	X, Y, M, S, T, C	4.88	3.88	0.24(0.56)	1~3	3-5
ANB	Series connection (Multiple Circuits)	None	4.4	3.4	0.24	1~3	3-5
ORB	Parallel connection (Multiple circuits)	None	4.4	3.4	0.24	1~3	3-6
MPS	Store the current result of the internal PLC operations	None	4.64	3.64	0.24	1~3	3-6
MRD	Reads the current result of the internal PLC operations	None	4	3	0.24	1	3-6
MPP	Pops (recalls and removes) the currently stored result	None	4.4	3.4	0.24	1	3-6

Output commands

Command Code	Function	Operands	Execution speed (us)			STEP	Page
			ES	SA	EH		
OUT	Output coil	Y, S, M	6.4	5.4	0.24(0.56)	1~3	3-7
SET	Latch (ON)	Y, S, M	5.04	4.04	0.24(0.56)	1~3	3-7
RST	Clear the contacts or the registers	Y, M, S, T, C, D, E, F	7.6	6.6	0.24(0.56)	3	3-8

Timers, Counters

API	Command Code	Function	Operands	Execution speed (us)			STEP	Page
				ES	SA	EH		
96	TMR	16-bit timer	T-K or T-D	9.6	8.6	25	4	3-8
97	CNT	16-bit counter	C-K or C-D (16 bits)	12.8	11.8	30	4	3-9
97	DCNT	32-bit counter	C-K or C-D (32 bits)	14.32	13.3	50	6	3-9

Main control commands

Command Code	Function	Operands	Execution speed (us)			STEP	Page
			ES	SA	EH		
MC	Master control Start	N0~N7	5.6	4.6	5.6	3	3-10
MCR	Master control Reset	N0~N7	5.7	4.7	5.7	3	3-10

Rising-edge/falling-edge detection commands of contact

API	Command Code	Function	Operands	Execution speed (us)			STEP	Page
				ES	SA	EH		
90	LDP	Rising-edge detection operation	S, X, Y, M, T, C	8.16	7.16	0.56(0.88)	3	3-11
91	LDF	Falling-edge detection operation	S, X, Y, M, T, C	8.32	7.32	0.56(0.88)	3	3-12
92	ANDP	Rising-edge series connection	S, X, Y, M, T, C	7.68	6.68	0.56(0.88)	3	3-12
93	ANDF	Falling-edge series connection	S, X, Y, M, T, C	7.76	6.76	0.56(0.88)	3	3-12
94	ORP	Rising-edge parallel connection	S, X, Y, M, T, C	7.68	6.68	0.56(0.88)	3	3-13
95	ORF	Falling-edge parallel connection	S, X, Y, M, T, C	7.76	6.76	0.56(0.88)	3	3-13

Rising-edge/falling-edge output commands

API	Command Code	Function	Operands	Execution speed (us)			STEP	Page
				ES	SA	EH		
89	PLS	Rising-edge output	Y, M	9.92	8.92	9.92	3	3-13
99	PLF	Falling-edge output	Y, M	10.16	9.16	10.16	3	3-14

End command

Command Code	Function	Operands	Execution speed (us)			STEP	Page
			ES	SA	EH		
END	Program end	None	7.44	6.44	0.24	1	3-14

Other commands

API	Command Code	Function	Operands	Execution speed (us)			STEP	Page
				ES	SA	EH		
	NOP	No operation	None	3.52	2.52	0.16	1	3-15
98	INV	Inverting operation	None	3.92	2.92	0.24	1	3-15
	P	Pointer	P0~P255	-	-	-	1	3-15
	I	Interrupt program marker	□□□	-	-	-	1	3-16

Step ladder commands

Command Code	Function	Operands	Execution speed (us)			STEP	Page
			ES	SA	EH		
STL	Step transition ladder start command	S	11.6	10.6	0.56	1	4-1
RET	Step transition ladder return command	None	7.04	6.04	0.24	1	4-1

Note: All the commands table above, ES model includes EX and SS models and SA model includes SX and SC.
 Note: The value wrote in () in the column of execution speed of EH series is the execution speed of specific operand M1536~M4095.

PLC-Software

17. What can I do if forgetting the password of PLC?

Open WPLSoft->Communication->Setup PLC program memory-> Back to factory setting. The password and program would all be erased.

18. Are the software of 20PM and WPLSoft the same?

The program structure of 20PM includes main program and position sub program and support G-code, so it needs specific software called PMSOFT.

19. Do Delta PLC provide online editing function?

WPLSoft 2.09 provides online editing function, can download program while PLC is running.

The limitation of SA_V1.4/SX_V1.4/SC_V1.2/EH2/SV is 49 STEPS, other firmware version SA/SX/SC/EH/EH2/SV is 15 STEPS.

PLC-Program

20. What are the index registers, and how to use them?

For example, if put values in E、F, like : MOV K8 E, then write MOV K100 D0E, D0E means D (0+8) =D8, D8 is K100. If users have to keep storing data, they can use this method to change registers to save.

21. What kinds of temperature control instructions do Delta PLC have?

Users can use PID or FTC (Fuzzy temperature control), the parameters and usage are different, if need further information, please check the user manual.

22. How to read/write data from/to extension module?

Use API78 FROM and API79 TO instructions, the extension module of right side is from 0, and SV left side extension module is from 100, if need further information, please check the user manual.

23. How to use hardware high speed counter?

Please refer the user manual for further information.

High-speed counter for ES / EX / SS series, total frequency: 20KHz.

Type Input	1-phase input							1-phase 2 inputs			2-phase inputs		
	C235	C236	C237	C238	C241	C242	C244	C246	C247	C249	C251	C252	C254
X0	U/D				U/D		U/D	U	U	U	A	A	A
X1		U/D			R		R	D	D	D	B	B	B
X2			U/D			U/D			R	R		R	R
X3				U/D		R	S			S			S

U: Increasing A: A phase input S: Start input
D: Decreasing B: B phase input R: Clear input

High-speed counter for SA, SX, SC series, total frequency: 40KHz.

For SC series MPU only, there are 3 new high-speed counter C243, C245, and C250. The input points X10(C243) and X11(C245) can be used as high-speed counter and 1-phase 1 input with highest input frequency up to 100KHz individually or 1-phase 2 inputs (X10, X11). The other input point C250 is with highest input frequency up to 100KHz. The total bandwidth of high-speed counter for X10~X11 is 130KHz.

Type Input	1-phase input										1-phase 2 inputs			2-phase inputs				
	C235	C236	C237	C238	C239	C240	C241	C242	C243	C244	C245	C246	C247	C249	C250	C251	C252	C254
X0	U/D						U/D			U/D		U	U	U		A	A	A
X1		U/D					R			R		D	D	D		B	B	B
X2			U/D					U/D					R	R			R	R
X3				U/D				R		S				S				S
X4					U/D													
X5						U/D												
X10									U/D						U			
X11											U/D				D			

U: Increasing A: A phase input S: Start input
D: Decreasing B: B phase input R: Clear input

24. What does it mean to add P on the end of instruction, like MOVP、INCP..etc?
Pulse upper trigger, means the instruction would be executed once, but ES/SS don't support this function.
25. How to do floating calculation in PLC?
Using floating points instructions. (Please refer API110~API138)。
26. How to use DHSCS/DHSCR instructions?
User can use the instructions with counter interrupt, please refer the user manual for more information.
27. What are motion control instructions that Delta PLC has?
PLSV (pulse output)、PLSR (pulse output with acc/dec)、DRVI (relative position instruction)、DRVA (absolute position instruction), SV and EH2 support interpolation instruction PPMR/A (line)、CLLM (circle) .
28. Why the result of using SPD to read encoder feedback signal is 1 while

the pulse output stops?

May be due to the noise, or the mechanism to make the situation happened.

29. What is the limitation of using PLSR?

As below, and for more information, please refer the user manual.

1. **S₁**: the maximum frequency (Hz) of output pulse. Settings: In 16-bit command: 10 to 32,767 Hz. In 32-bit command: 10 to 200,000 Hz. The maximum speed is deemed to be the multiples of 10, if not, the first unit will be discarded automatically. 1/10 of the maximum speed is the one time variation of the accel/decel speed. Note that the condition meets the acceleration requirement of the step motor and would not result in the step motor crash.
2. **S₂**: Content of the pulse output quantity (PLS). Settings: In 16-bit command: 110~32,767 (PLS). In 32-bit command: 110~2,147,483,647(PLS). If the setting is below 110, the pulse cannot output normally.
3. **S₃**: Acceleration/Deceleration time (ms). Settings: below 5,000ms. The accel time and the decel time have to be the same and cannot be set without one another.
4. The accel/decel time has to be over 10 times the maximum scan time (contents of D1012). If the setting is below 10 times, the slope of the accel/decel speed will be inaccurate.

30. How to use RAMP instruction to cooperate with PLSV?

PLSV does not have "acc/dec function", so users can set the frequency of as PLSV D0, then use RAMP to make D0 increase/decrease progressively to implement the acc/dec function of PLSV.

31. How to use M1261 of EH?

Can refer API54 DHSCR instruction.

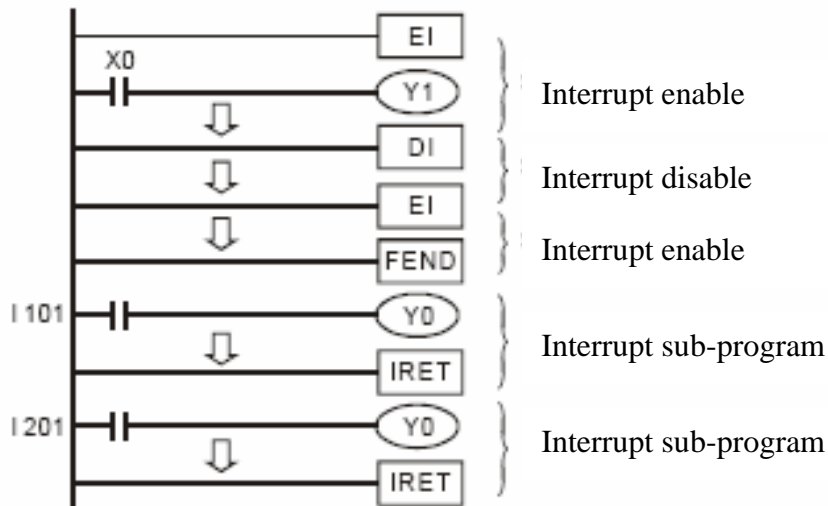
Only for EH hardware high speed counter and use external X for return point.

Return point is ON, counter returns, and M1261=ON, then DHSCR result output (Y returns) .

Return point is ON, counter returns, and M1261=OFF, then DHSCR result not output (Y not returns) .

32. How to write interrupt sub-program?

Have to use API04 EI (enable interrupt) 、API05 DI (disable interrupt) 、API03 IRET (interrupt return) , and different interruption types are with different flags, please refer user manual for more information, below is the example of interrupt program.



33. How can reduce the communication time between MPU and extension module?

While using FROM/TO instructions, not using M1000 to be condition if necessary, otherwise, using more FROMP/TOP to instead of FROM/TO.

PLC-Communication

34. How to transfer data between PLC and other devices via RS485?

Every device has to be set the same protocol and each has to has its own station address then indicate the Modbus address of the devices which want to transfer data to.

35. How to set PLC as master and HMI as slave to communicate?

HMI has to be set as slave mode, and both PLC and HMI have to set the same protocol. Using Modbus communication instructions MODRD/MODWR/MODRW to communicate HMI via RS485. Please refer user manual for further information.

36. Is there any special D or M need to be set while PLC connecting other devices via RS485?

D1120 (set communication protocol)、M1120 (keep communication protocol)、D1121 (set RS485 station address)、M1143 (ASCII/RTU mode select)。

37. Is the address of EH COM2 common with using F485 function card?

Yes, although the COM port is different, but the address is the same.

38. If the RS232 port of PLC has been occupied, then how to use IFD8500 gateway to connect RS485 port of PLC ?

EH can add RS232 function card, and if need to use IFD8500, just input 24VDC and one side connect RS232, the other connect RS485 would be OK.

39. Can EH be slave by built-in RS485, and be master by F485 card?
No, function card could only be slave.

40. Is PLC-Easy Link Delta' s own protocol ?

PLC-Easy Link follows Modbus protocol, all Delta products has built-in Modbus protocol and design special registers to implement data exchanging easily.

41. How does PLC remote monitor by MODEM ?

Function Group MODEM Connection Function

Number M1184-M1188

Contents:

1. System connection



2. EH series special M definition for MODEM connection:

Device	Function Explanation	Remark
M1184	Start-up MODEM	When M1184=On, following actions are valid.
M1185	Start-up MODEM initialization	This flag will be Off after finishing initialization.
M1186	Fail to initial MODEM	When M1185=On, M1186=Off.
M1187	Succeed to initial MODEM	When M1185=On, M1187=Off.
M1188	Display if MODEM is connected or not	On means in connection

NOTE: special M is always valid no matter PLC is RUN or STOP.

3. Operation: (Please operate by following steps)

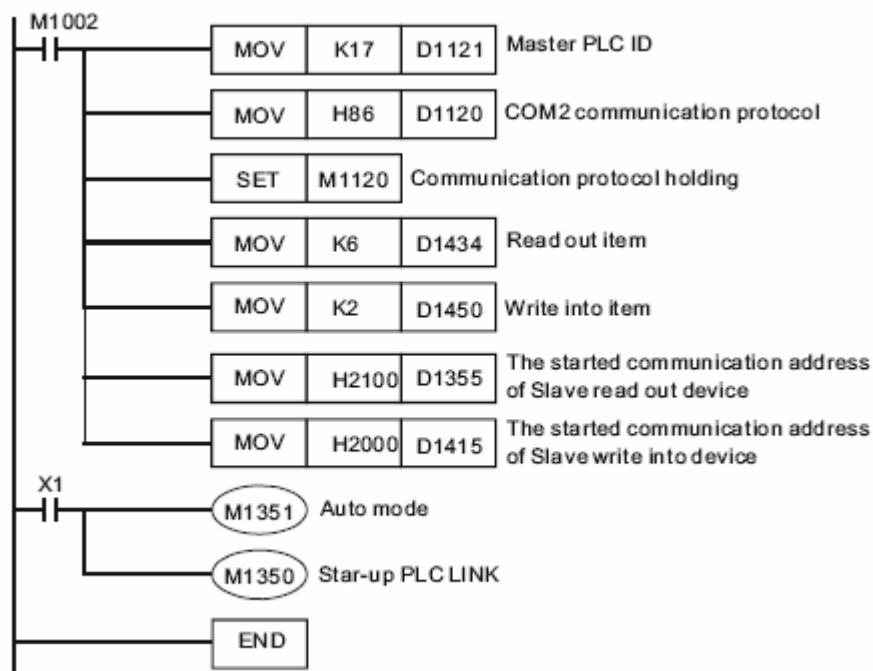
- a) Setting M1184=On on PLC side (start-up MODEM)
- b) STEP 2: Setting M1185=On (start-up PLC's MODEM initialization)
- c) STEP 3: Check the result of MODEM initialization: M1186=On means succeed to initial. M1187=On means fail to initial.
- d) STEP 4: After initialing successful, WPL software can be ready for connection on remote PC side. WPL connection method: setting -> modem connection (you need to install modem's driver first) -> to get dial connection dialog box and then fill in dial information as following.

42. If PC only has USB port, can it communicate to PLC by USB?
 PLC doesn't support USB communication interface so far, so users have to use RS232-USB converter or using By Pass function of HMI.

43. How PLC communicate to inverter by using Easy-Link?
 Example is as below :

Example 4: when Delta PLC connect to Delta VFD-M series AC motor drive, by using PLC LINK to perform the stop of START and the frequency read/write of forward/reverse rotation control.

◆ In Master PLC (ID=17), write in the following ladder diagram program:



44. Is there any instruction can be used while connecting to devices which don't support Modbus protocol?
 API 80 RS instruction is specific for serial port data transferring, and please refer user manual for further information.

45. Why PLC cannot be remote monitor by GSM modem as if the program in PLC includes sending SMS function?
 The COM port would be occupied as long as there is sending SMS instruction in the program, so the COM port cannot be used to monitor anymore.

46. Can the two com port of PLC be used to connect different devices at the same time?

Yes, and no special limitation.

47. How to design a system that includes two PLCs, one is master, and the other is its backup. While the master is terminated due to some problems, then the backup would start immediately?

Basically the master can always send signal to backup as running and as long as the backup cannot receive the signal, that means something wrong with the master, then backup start to run. When the signal is back again, the backup goes to stop. Using MODRD/MODWR or RS instructions.

PLC–Application of network module

48. Is there any limitation or anything need to be noticed while using Ethernet module?

Just adding Ethernet module to SV and connecting Ethernet, setting IP is OK. But have to notice the network environment, like firewall, or if has DHCP server.

49. Is there any limitation or anything need to be noticed while using DeviceNet module?

The max number of DeviceNet is 64 and longest is 500m. Because the biggest advantage of DeviceNet is the stabilization, using specific cable is needed.

50. Can Delta PLC be controled by SCADA ?

Yes, can use Modbus or Ethernet (for SV) to read/write device inside PLC via indicating its address.

51. What does the RS232 port on Ethernet module EN01 use to, can users download program via it?

RS-232 is only for configuring EN01, like setting IP address, not for program downloading.

52. What has to do if Ethernet module cannot connect Ethernet ?

Making sure if the IP address is right firstly, and check if be blocked by firewall. If still not work, please contact MIS member to solve.

PLC-Other application

53. Can program in DVP-ES be directly transfer to other types(SA or EH) ?
Yes, because the program capacity of ES is fewest and not have to worry about program losing.
54. Can ES add temperature module and not change PLC ?
Extension module can be connected via directly plug of via RS485. So ES can connect other type MPU module via RS485.
55. What can I do if I need more current than PS01 or PS02 provides ?
Parallel connecting 2 PS02, means connect 24V and 0V together can provide 4A current.
56. Can extension module be added more than 8 ?
No, but for SV can add 8 on left side and 8 on right side.
57. How to decide K_p · K_i · K_d of PID instruction ?
When first executing PID, suggest to set auto-tuning mode. And the sampling time depends on the environment. If the value changes rapidly then the sampling time has to be set smaller.
After auto-tuning, check the temperature curve, if raising rapidly, suggest to reduce K_p , if shaking too strong, suggest to reduce K_i .
Please refer the user manual for more information.
58. How to use PLC and Servo to implement zero return ?
After PLC connecting to Servo, executing zero return instruction of PLC (ZRN) .
59. SX has 2AI, but only 1 common, can the current and voltage plug together ?
Yes, the common is the same,
60. There is no RUN/STOP switch on ES · EX,how can I set it run ?
Using WPLSoft to run PLC, and the state would be store. That means after power off and then on again, PLC would be still in run state.
61. How to implement interpolation function on DVP12SC ?

一、 2 axis defination :

X - Y0(direction) and Y10(pulse)

Y - Y1(direction) and Y11(pulse)

二、 flags and devices :

output flag devices segments

Y10 M1133 D1133 D1134

Y11 M1135 D1135 D1136

三、 Output table defination :

If D1133 = k100 and D1134 = k3 then the table is as below :

seg. #	devices	frequency	devices	pulse number	comments
1	D101 ,D100	k10000	D103,D102	k1000	10KHz and 1000 pulses
2	D105, D104	k15000	D107, D106	k2000	15KHz and 2000 pulses
3	D109, D108	k5000	D111, D110	k3000	5KHz and 3000 pulses
Frequency and pulse number are all 32bit, so 3segments would take 12 D devices continuously. (3*2*2=12)					

62. How to use RTC ?

Users can read D1313~D1319 registers of PLC or using RTC related instruction API160~API169.

63. The program is like : SUB D172 K20 D173

When D172=any value, D173=0, even if set D173 as any other value cannot change it, but change D173 to D174 is OK, why ?

D172 suppose to be 32bit and take 2 continuous registers.

64. Could extension module be read/wrote by HMI directly(not via PLC) ?

Yes, connecting HMI and module by RS485 and confirm the station address of module. Selecting Delta Controller ASCII in Base Port control selection, and choose PLC_MODULE for device.

65. What can I do if I don' t know the station address of PLC ?

Set the station address as 0 in WPLSoft, and it would broadcast to search automatically.

66. Whether if all PLC support the COM1 protocol changing function ?

Only the firmware version newer than ES/EX/SS_V6.0 、 SA/SX_V1.2 、 SC_V1.0 、 EH_V1.1 、 SV_V1.0 、 EH2_V1.0 is OK.

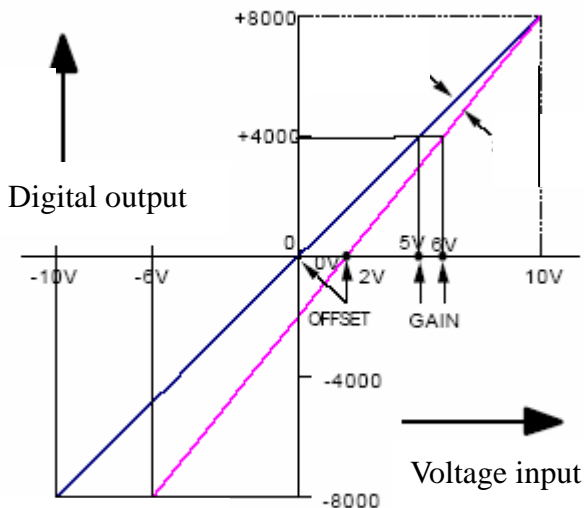
67. How can I get the software of Delta PLC, do I have to purchase it?
 Software is called WPLSoft and user can download on Delta website.

http://www.delta.com.tw/product/em/download/download_main.asp?act=3&pid=3&cid=1&tpid=3

68. Is there any rule to be followed when PLC connecting extension module?
 Nothing particular has to be followed, but suggest the DI/O module to add on the most far side.

69. How to set AD convert curve of analog module?
 Adjust the Gain/Offset value in the internal CR register of module.

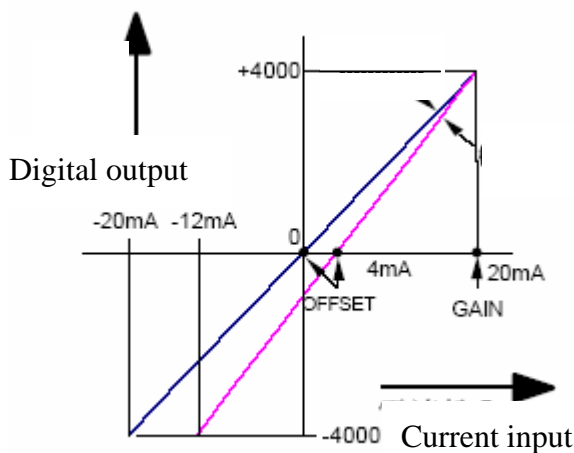
Voltage input



GAIN is the value when digital output equal to 4000
 OFFSET is the value when digital output equal to 0
 So if set GAIN=5, OFFSET=0
 the converting curve is $Y=800X$,
 Y is digital output, X is analog input

And when GAIN=6, OFFSET=2
 then the curve would be $Y=1000X-2000$

Current input



For more information about CR,
 please refer user manual.

70. Why the temperature curve shakes when using 04PT?
 Maybe the environment is unstable. And notice to keep far from noise and do some prevention of noise.

71. How to use DVP-PCC01 ? Only 1 button (ERASE) and 1 switch (WR/RD) ?

Step	(PLC→PCC01) RD (Read)	(PLC←PCC01) WR (Write)
1	Set RD/WR switch to "RD" mode	Set RD/WR switch to "WR" mode and confirm PLC is STOP status
2	Connect PCC01 to PLC COM1. Reading will start after 5sec. waiting.	Set RD/WR switch to "WR" mode and place the PLC RUN/STOP switch in the STOP position.
3	After reading data from PLC, "OK" LED will light	Connect PCC01 to PLC COM1. Writing will start after 5 sec.
4	Disconnect PCC01 when read process is done.	Disconnect PCC01 when write process is done.

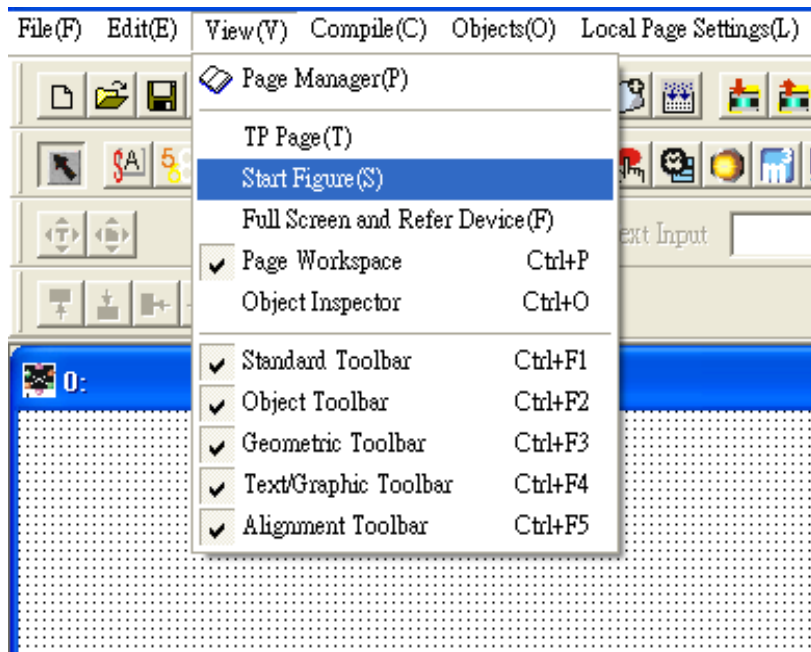
Please refer DVP-PCC01user manual for more information.

72. How to copy device comments from one WPLSoft program to another?
 After compiling, copy .rcm is OK.

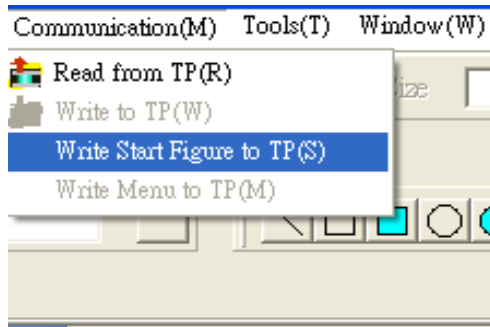
TP

73. How to manually set start figure on TP ?

1. Select View→ Start Figure



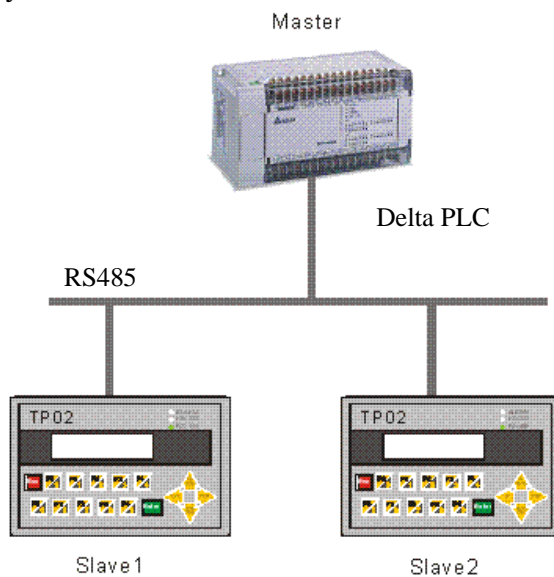
2. After finishing editing, select Communication→ Write Start Figure to TP



74. Can the start figure be downloaded to TP with program at the same time ?
NO.

75. What suppose to do if forgetting the password of TP ?
Enter password 8888, for clear the password, but the program would be erased and TP04 would be back to factory setting.

76. How to implement data transmission between two TPs via PLC?
By RS485 and set TP as slave.



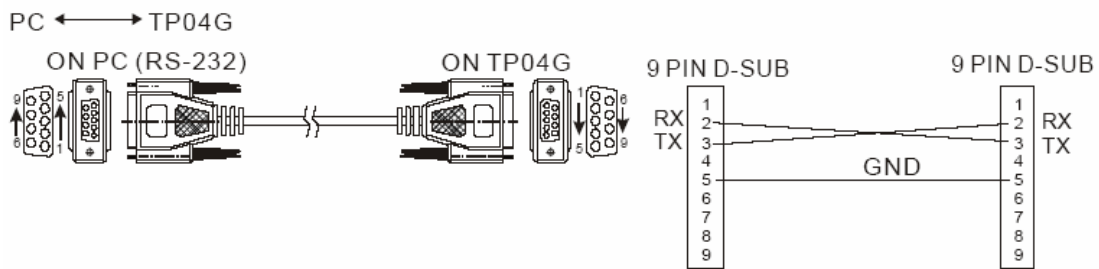
Use Easy-Link to do data exchanging, read data from slavel, and do the data exchanging then write data to slave2.

For more information about Easy-Link, please refer the user manual.

77. What is the model name of the communication cable between TP04 and PLC? What is the pin definition

■ TP04G

DVPACAB530



78. What is the difference between TP04GAS2 and TP04GAS1 ?
 AS1 built-in RS232/RS485 com port, and AS2 can set DIP SWITCH to change RS422 and RS485.
79. Why the data of PLC doesn' t change after TP04 writing data to it?
 Please confirm the device can be wrote, and make sure not to be affected by other action
80. How to download program to TP by TPEditor ?
 After compiling program on TPEditor ok, select" Write to TP" , on the other side TP press ESC to enter menu and select TP->PLC, downloading would begin.