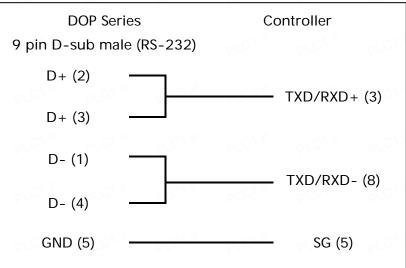
Siemens S7 300 (without PC adapter)

HMI Factory Setting:

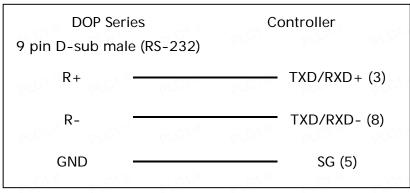
Baud rate: 19200, 8, Even, 1 (RS-485) (<u>Note1</u>) Controller Station Number: 2(<u>Note2</u>, <u>Note3</u>, <u>Note4</u>) Control Area / Status Area: DBW0/DBW20

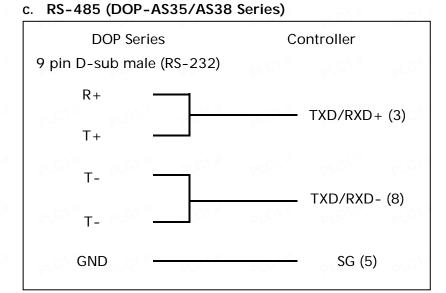
Connection

a. RS-485 (DOP-A/AE Series)

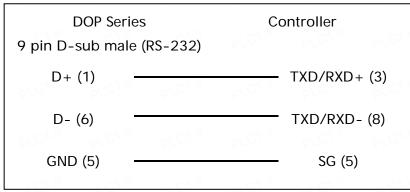


b. RS-485 (DOP-AS57 Series)





d. RS-485 (DOP-B Series)



Definition of PLC Read/Write Address

a. Registers

PLC1." PLC1." PLC1	Format	PLC1." PLC1." PLC1."	PLC1." F	/C/ .//
Туре	Word No.(n)	Read/Write Range	Data Length	Note
$10 \text{ m}^{1/3} \text{ m}^{1/3} \text{ m}^{1/3} \text{ m}^{1/3}$	Bank No.(m)		a C1.M	1 C1.11
Input Image	IWn	IWO – IW65534	Word	
input image	IDn	ID 0 – ID 65532	Double Word	C1. ^j
Output Income	QWn	QW 0 – QW 65534	Word	
Output Image	QDn	QD 0 – QD 65532	Double Word	CU ju
Internal Dite	MWn	MW 0 – MW 65534	Word	
Internal Bits	MDn	MD 0 – MD 65532	Double Word	1. C ^{1. j}
	DB m.DBWn	DB 1.DBWO –	Word	<u>5</u>
Data Area		DB 255.DBW65534	01.C1.if	C1. ³¹
Data Area	DB m.DBDn	DB 1.DBD0 -	Double Word	<u>5</u>
		DB 255.DBW65532	ol 61. ¹¹	C1. ³¹

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Туре	Format Word No.(n) Bank No.(m)	Read/Write Range	Data Length	Note
plc1.ir plc1.ir plC1	DBWn	DBW 0 – DBW 65534	Word	CV ju
	DBDn	DBD 0 – DBD 65532	Double Word	
Data Area (DB10)	VWn	VW 0 – VW 65534	Word	CV ji
	VDn	VD 0 – VD 65532	Double Word	
Timer	Tn	T 0 – T 65535	Word	<u>6</u>
Counter	Cn	C 0 – C 65535	Double Word	<u>6</u>

b. Contacts

Туре	Format Word No.(n) Bank No.(m) Bit No.(b)	Read/Write Range	Note
Input Image	ln.b	10.0 – 165535.7	
Output Image	Qn.b	Q 0.0 – Q 65535.7	C1. ³⁷
Internal Bits	M n.b	M0.0 – M65535.7	
Data Area	DB m.DBXn.b	DB 1.DBX0.0 – DB 255.DBX65535.7	<u>5</u> _^_
Data Area (DB10)	DBXn.b	DBX0.0 – DBX65535.7	
010 ¹¹¹ 010 ¹¹¹ 0101	V n.b	V 0.0 – V 65535.7	

- 1) This communication protocol only supports 19200 bps. Only one COM port can use this communication protocol for one project (it supports COM2 and COM3 ports, but it does not support COM1 port).
- 2) This communication protocol supports multiple HMI to multiple PLC connection. However, it is still recommend connecting a maximum of four HMI to a PLC at a time. A connection of more than four HMI would cause low baud rate and time out error may occur.
- 3) In order to set Highest Station Address(HSA) click Option > Configuration > Communication > Special Parameters> Extra. The default setting for HSA is 31, max. value is 126 and Min. value is 2. The setting for HSA must be in consistent with PLC setting.

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Add Move Up ecial Paramete Delete Move Down			Communication Parameter						
		HMI	HMI Station		0]			
			Interf	ace	PLC1	RS485	~	PLON	
2 com	omm. Ad	lvanced Set	ting					1	
🦻 СОМ2	101X	PLOTIK	Me pro	<u>A 35</u>	PLOT	10		LoLOV.	
Base Port		Extra. 1	31	HSA				1	
COM3		Extra. 2	5	1157					
Luciat			Di YV						
	- A X								
PL-									
								out PC Adapt	or) 🗸
PLON'	1,011							e pro-	P
S PLONIS	1,011								
1	201X	×1016	010	A X	au CA À	1			
				ЭK		Cancel			
	N.CA.M	CAN	Gamma						
				otimize	1	Size 1	imit		
Communication Inter	35								
3 🤤 times then ig	nore								

4) In "Special Parameter", click on "Extra" to update GUF coefficient of GAP in setting 2. The GUF coefficient is the frequency of the HMI checking the existence of controller within the communication network. If coefficient is larger, the frequency of update will be low, in another word, it takes longer waiting time for other devices to join the network. The default setting of GUF is 5, maximum value is 31 and minimum value is 1. If multiple HMI connections are required, it is recommended to lower GUF coefficient in order to shorten the waiting time of newly joined HMI and to prevent the error of "network can not be joined".

Add Move	Move Up		Communication Param HMI Station		meter O		
Delete Move I	Down		Interface		RS485		
🖉 сомі 🛛	Comm. A	dvanced Sett	CALL CONTRACTOR OF THE OWNER OF T		18.344.1		
🦻 🌽 СОМ2	-	PLOTIX	Mapton M	PLOY	100	- PLON	
Base Port		Extra. 1	31				
Ethernet	E CONT	Extra. 2	5 GA	P		PLO'	
in showing t						PLON"	
						out PC Adapt	tor) 🗸
	14					e pro.	
×	CAN S						
N 2.011	2011	- Chil	N.1.219		X	E PLONI	
			OK		Cancel		
N PLON	1.1.24	CAN .	⊘ Optimiz	e	Size Lim	It PLONN	
Communication Inter	rupt		Construction of the second				
3 🤹 times then ig	more						

- 5) PLC needs to enable DB memory (**DB**m.DBWn \ **DB**m.DBDn \ **DB**m.DBXn.b) before DB data can be read.
- 6) The valid digit of value for Timer is only up to 3 digits. If a value input is more than 3 digits, the Timer will regards the highest 3 (decimal) and replace the rest by 0. For example, a value 12345 will be written as 12300 in PLC.
- 7) The valid digit of value for Counter is to 3 digits. If a value input is more than 3 digits, the Counter will regards the first 3 digits and leave out the rest. For example, a value 12345 will be written as 123 in PLC.
- 8) Except register Tn and Cn [,] data type of register is Byte and its order is opposite to usual controller , for example :
 - IW3 is a word which combined from IB3 and IB4 High Byte of IW3 is IB3 ; Low Byte of IW3 is IB4.

2 ID3 is Double Word which combined from IB3, IB4, IB5 and IB6, and its order from highest to lowest is IB3, IB4, IB5 and IB6.

And please be attentive to use these registers, because their Data type is different with Data Length, it will need more than one register for each access, for example:

- 1 AIW6 which Data Type is Byte and Data Length is 1 Word, when it used for one word Numeric Entry, it will occupy two addresses AIB6 and AIB7 •
- 2 MD12 which Data Type is Byte and Data Length is Double Word , when it used for one word Numeric Entry, it will occupy four addresses MB12,MB13,MB14 and MB15; But data only stored in MB14 and MB15.
- 3、 IW3 which Data Type is Byte and Data Length is 1 Word , when it used for double word Numeric Entry, it will occupy for addresses IB3,IB4,IB5 and IB6, order from highest to lowest byte is IB5,IB6,IB3 和 IB4.