Lenze LECOM-A/B protocol

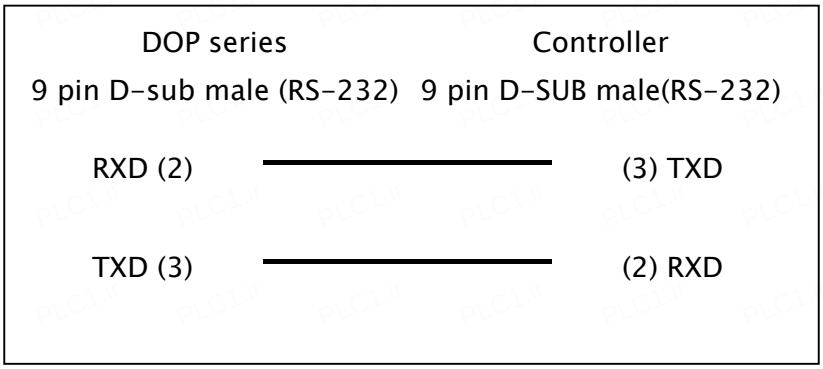
（Supports 82XX frequency inverters and 93XX servo inverters）

HMI Factory Setting:

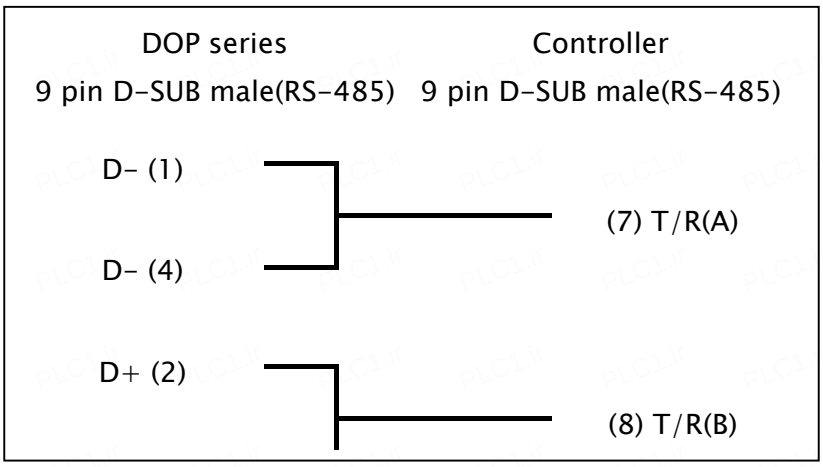
Baud rate: 9600, 7, Even, 1
Controller Station Number: 1 (1~99)(Note 5)
Control Area / Status Area: None/None

Connection

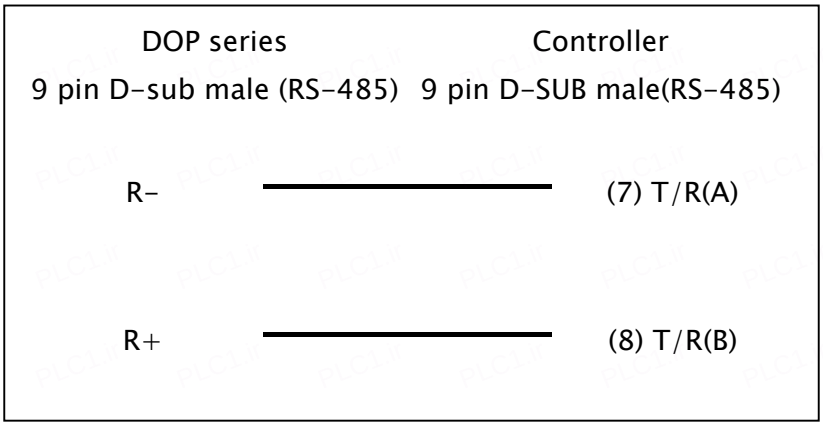
a. RS-232 (DOP-A/AE/AS, DOP-B Series) (Note1)



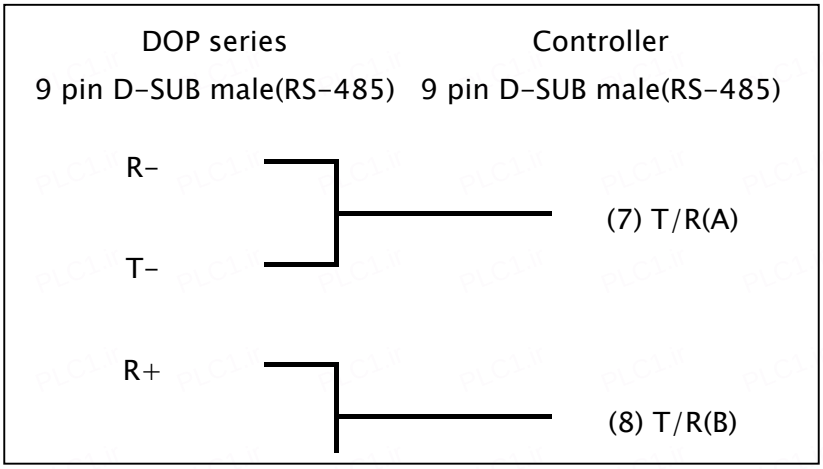
b. RS-485 (DOP-A/AE Series)



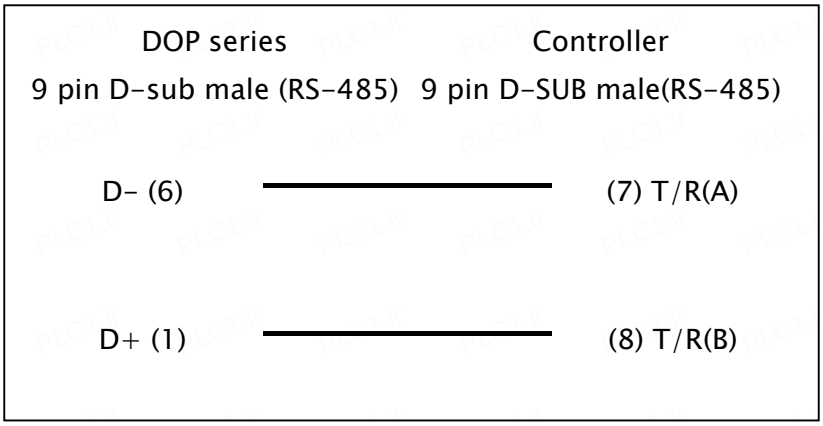
c. RS-485 (DOP-AS57 Series)



d. RS-485 (DOP-AS35/AS38 Series)



e. RS-485 (DOP-B Series)



Definition of PLC Read/Write Address

a. Registers

Type	Format Word No.(n) Format(m) Subcode(y)	Read/Write Range	Data Length	Note
Parameter w/o subcode	CWn	CW1 – CW10000	Word	
	CWn.m	CW1.0 – CW10000.23	Word	2, 4
Parameter with subcode	CWn/y	CW1/1 – CW10000/255	Word	
	CWn/y.m	CW1/1.0 – CW10000/255.23	Word	2, 4
Parameter w/o subcode	CDn	CD1 – CD10000	Double Word	
	CDn.m	CD1.0 – CD10000.23		2, 4
Parameter with subcode	CDn/y	CD1/1 – CD10000/255	Double Word	
	CDn/y.m	CD1/1.0 – CD10000/255.23		2, 4

b. Contacts

Type	Format Word No.(n) Subcode(y) Bit No.(b)	Read/Write Range	Note
Parameter w/o subcode	CBn.b	CB1.0 – CB10000.31	3, 4
Parameter with subcode	CBn/y.b	CB1/1.0 – CB10000/255.31	3, 4

NOTE

1) If communication is using RS232, please NOT to use general RS232 pin-cable. For more information of pin definition, please refers to cable connections (Connector Pinouts) in in Lenze LECOM A/B Protocol controller.

2) m represent HMI communication data forma. Different set of value represents different data format as following?:

m = 0 ~10	• unsigned, ASCII decimal format (VD). m represents decimal place, For example: m=0 → no decimal place m=1 → one decimal place (tenth) m=2 → two decimal place (hundredth)

m = 11 ~20	• signed, ASCII decimal format (VD). m represents decimal place, For example: m=11 → one decimal place (tenth) m=12 → two decimal place (hundredth)
m = 21	• signed, ASCII decimal format (VD). without decimal place
m = 22	• ASCII hexadecimal format (VH). 2 numbers. when using this format, the write value will be limited within the range of 0~0xFF (low byte). For example: when entering 0x1234 during communication, the actual write value is 0x34, not 0x1234.
m >= 23	• ASCII hexadecimal format (VH). (4 or 8 numbers.)
No m setting	Same as above

3) Only VH type parameter supports bit read & write function.

4) Data format of LenzeLECOM-A/B protocol is categorized:

1. VS (String format)
2. VO (Octet string format data blocks)
3. VH (ASCII hexadecimal format)(1, 2, 4 bytes)
4. VD (ASCII decimal format)(positive number, negative number, decimal number.)

Different communication format is not compatible, therefore, it is needed to ensure the HMI communication data format is correct, or an error may occur. For more detail, please refers to Lenze user manual.

1. The settings of ASCII hexadecimal format (VH) and ASCII decimal format (VD) must be correct. If the write value is incorrect the HMI will show "….Write …. Command Can Not be Executed" or "Can not be write".

2. The decimal place of ASCII decimal format (VD) should be set correctly, or the write value will be incorrect.

3. ASCII hexadecimal format (VH), 2 numbers (m = 22). The value is limited to 2 numbers. Using this format the write value will be limited within the range of 0 ~ 0xFF (low byte) automatically.

4. Length of data varies upon different communication address. Use register CW to read/write the address with data length as Word format. Use register CD to read/write

the address with data length as Double Word format. Please refer to Lenze user manual for more detail on communication address.

Contacts: only can read/write the data of ASCII hexadecimal format (VH). Read the following information:

1. Do not write the inexistent Bit address, or HMI will show "….Write …. Command Can Not be Executed" on the screen. For example: CW470/1. The valid value of CW470/1 is within the range of 0 ~ 0xFF. Therefore, Bit 8 ~31 is not existed. Although HMI will show the value of Bit 8 ~31 is 0, the user can not write or set the value.

5) The valid station number is from 0 to 99 and also supports broadcast function, setting detail as following:

Controller Station Number	Broadcast Station Range
0	1 – 99
10	11 – 19
20	21 – 29
30	31 – 39
40	41 – 49
50	51 – 59
60	61 – 69
70	71 – 79
80	81 – 89
90	91 – 99